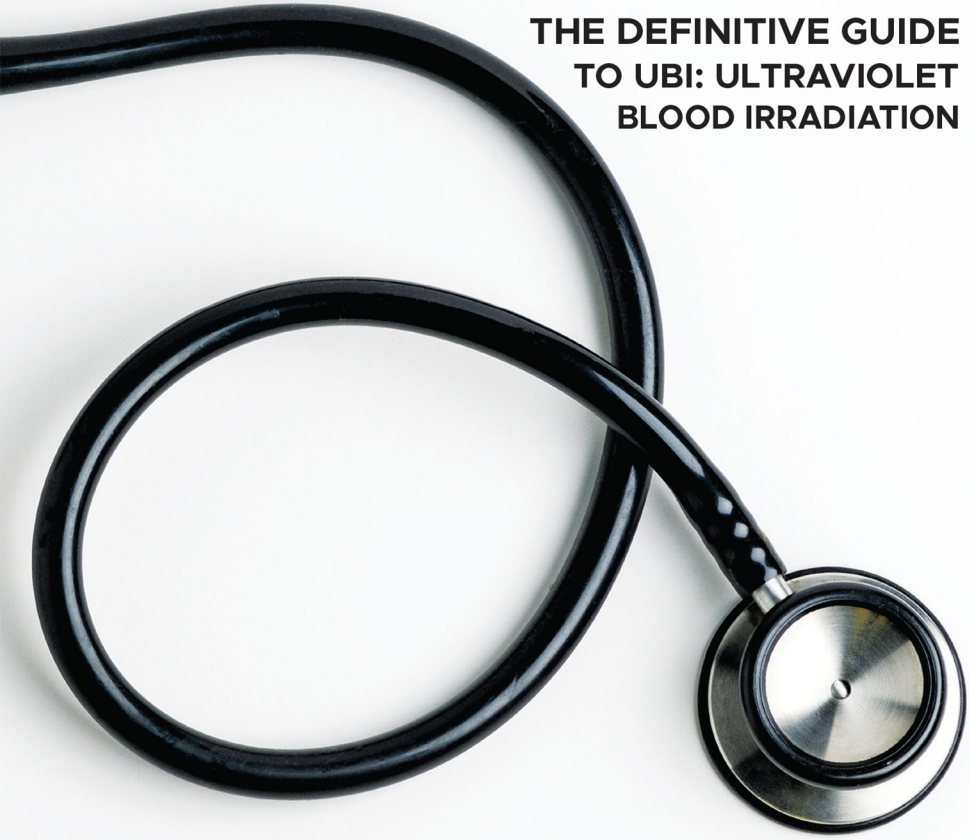
Invisible CURE

Fix Your Immune System Fix Your Body

THE DEFINITIVE GUIDE TO UBI: ULTRAVIOLET BLOOD IRRADIATION



TOM LOWE

What People are Saying About Invisible Cure

Additional and full comments may be seen at www.Invisiblecure.com

In Invisible Cure, Tom Lowe masterfully describes the therapy and its history. It **should be required reading in every medical school and by every internist and infectious disease specialist**.

Richard J. Senior
Chairman of Morgan Services, Inc.
Life Trustee of the Northwestern Hospital Foundation
www.InfectionsCured.com

Entrepreneur and researcher Tom Lowe tells, in an engaging way, the remarkable history of UBI. Then he uses his intimate familiarity with the devices, therapeutic modes, and key personalities to explain the science behind this formidable therapy as well as its many clinical applications**. This book is packed with useful information about UBI. It is must reading** for every UBI practitioner and recommended for anyone interested in the real history of medicine and science.

Ken Dillon
Historian and theoretical scientist
Author of "Healing Photons," The Science and Art of Blood Irradiation Therapy.

Invisible Cure is a masterpiece on the development and history of ultraviolet blood irradiation from its earliest days in America, and to include pioneering recent research of the failed Vasogen company. I had hand collected what I thought was every available American article and bit of information on UBI, but Tom Lowe has put together an easy-to-read book that goes further.

Robert Jay Rowen, MD
The Father of Medical Freedom" - Trainer, Speaker, Original Author of "The Cure that Time Forgot"

Ultraviolet blood irradiation is called "The invisible cure" in this new book by Tom Lowe. It has also been called "The cure that time forgot". Both titles raise the intriguing question of how a medical therapy that has cured so many people of so many different diseases over a period of as long as 90 years can still be almost completely unknown to the general public and the medical profession**. Tom Lowe attempts to answer this question in a highly readable and informative manner….**

Michael R Hamblin Ph.D.
Distinguished Visiting Professor, Laser Research Centre, Univ. of Johannesburg, South Africa.
Editor-in-Chief "Photobiomodulation, Photomedicine, and Laser Surgery"
Formally with the Harvard Medical School, Wellman Center for Photomedicine and Massachusetts General Hospital

With Invisible Cure, I have added to my UBI knowledge regarding its uses for other conditions. With this book, I am more convinced that UBI is not just an alternative but the **best treatment of wide array of unyielding diseases.**

Dr. Corazon Noble Masbate
St Louis University of Sacred Heart Hospital
Baguio City, Philippines

…Upon subsequent readings of Infections Cured, I collected the primary sources and references, assessed them scientifically, and I have come to the conclusion that Ultraviolet Blood Irradiation is indeed a technology whose time has come (again), and Tom's book is an excellent introduction to this topic. **I would consider it required reading for anyone in the health or medicine sector.**

Robert Dennis, PhD
Associate Professor of Biomedical Engineering
NCSU-UNC Joint Dept of Biomedical Engineering
Original NASA TVEMF/PEMF systems Developer

The author of Invisible Cure, Tom Lowe, has done a yeoman's job of combing through voluminous articles on blood UV irradiation that have emerged over its long history. **Reading through this, it would be hard for anyone to conclude that UV modalities would not be an important therapy** to incorporate in their practice.

Bill Domb

Founder of the International Association of Ozone in Healthcare, Co-founder of the American Academy for Oral Systemic Health, AAOSH

The UBI procedure has changed thousands of lives around the world and Invisible Cure is now the "go to" reference and authority. The world needs the information in this book. Doctors need to read this to have a complete education on UV light therapy. Invisible Cure tells of this advanced medical tool that encourages physicians and helps their patients. With the fear of infectious diseases and low immunity Invisible Cure could not be more timely.

Dan Pompa

Speaker, trainer and author. Beyond Fasting and The Cellular Healing Diet book are known for expertise in neurotoxic illness, nutrition, and weight loss programs.

Nicely Done! - Invisible Cure provides a history of UBI, a primer on biology and ultraviolet light, technical details about equipment, and a summary of positive health effects that can be derived from the treatment**. The book is well written, well referenced, and a wonderful introduction for the medical care giver in all of us.**

Hal S. Blatman, MD, DAAPM, ABIHM

Founder and medical director of the Blatman Health and Wellness Center in Cincinnati. Past-President of the American Holistic Medical Association.

…Invisible Cure cites and condenses all the medical research articles into a readable format supplying many references for research junkies' nighttime reading. Now you can find all the necessary UBI information in one place. … **Anyone who reads with an open mind will find an amazing technique to add to their doctor bag. Invisible Cure provides the research and evidence supporting what I routinely observed in my clinical practice.** I give Invisible Cure the highest recommend without reservation.

Jeff Wright, NMD, FAAO
Trainer, Researcher, Physician
Founder of the Utah Valley Health Clinic
Provo, Utah

Tom's book Invisible Cure is a "must read" for every physician who is interested in helping patients recover from chronic degenerative disease. Within a very short time of practice, you too will join the ranks of doctors who swear by this therapy. The treatment is simple, fast and effective and the research Tom has gathered supports the evident results. Thank you, Tom, for this invaluable contribution.

Marcus Freudenmann
Director of the TRULY HEAL Functional Medicine Academy and producer of the documentary "Cancer is curable Now"

Tom Lowe has written a very important book about UBI. It's provocative contents and vital information could offer the best therapeutic options for those suffering from illness, sickness, and emotional despair. Indeed, a great read about a tested and unfortunately an almost forgotten curative option!

Stephen Sinatra, MD
Cardiologist specializing in integrative medicine, author and contributor to 17 books including "Reverse Heart Disease Now" and "The Great Cholesterol Myth

Light and Blood IV Therapy

Invisible Cure

THE RESURGENCE AND UPDATE OF UBI: ULTRAVIOLET BLOOD IRRADIATION

Tom Lowe

www.invisiblecure.com

The information and advice presented in this book are not meant to substitute for the advice of your family's physician or other trained healthcare professionals. You are advised to consult with health care professionals with regard to all matters pertaining to you and your family's health and wellbeing.

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Acknowledgement

The events of my life seem to be ever changing. No one is an island and doing things totally on their own. This is not just my book, it is a book of thousands for thousands.

I am indebted to my wife and for her love and sacrifices. Her care of home and family has allowed me to pursue many a dream. My children have been a wonderful support in many of my successes and even through my failures.

The support of many physicians through the years is a blessing. Those pioneers mentioned in the book made what we do today with UBI possible.

Thanks to Ken Dillon for his gracious use of his previous books and information on UBI.

Other friends' critique has only made this a better book and more usable. Thank you.

I acknowledge my Lord and Savior – Christ. What we accomplish is by His grace.

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Foreward

The Invisible Cure is written, not by some casual observer of the science of UBI therapy, or a ghost writer pretending to know, but by a man who has personally taught and tutored many thousands of medical doctors in the subject. For that reason, it is practical, scientific and easily understood. It will be an IV room reference for all who engage in this therapy. In my opinion, it is the best existing resource on the subject.

I first met Tom when he came to my office in Clearwater Fl, hoping to encourage me to use UBI. I was skeptical at the time and worried about the legality of the device. Some years before, I had purchased one of the original Knott UVBI machines and due to legal concerns, we had to stop using it. That was the late 90's. It took a couple of years of him politely coming to my office, saying he was in Florida and just stopped by to say "Hi." He would talk of the "win's" that patients were having, and how there was some legal precedence for UBI. I finally pulled the trigger and started UBI therapies. Then successful patient after successful patient came out of our IV room after having UBI treatments. We needed more and more machines just to keep up with the patient demand. After only few years we had eleven of his machines going at once. That's a lot of delivery!

So I am a believer in the technology of UBI because I know it works to cure more things - better and faster than any other medical treatment that I have ever used. All of our Lyme, cancer, chronic fatigue, M.S., and autoimmune disease patients receive it, and I get one every week because it improves immune health and athletic performance.

For those of you that do not know, Tom not only helped U.S. and international doctors to learn and practice UBI therapy,

but also engaged many of them to go third world countries so the less fortunate could also get the benefits of UBI and other alternatives. Tom's missions are exemplary because his vision to help knows no bounds.

I am proud to call Tom my friend and I am honored to introduce his book to you. Tom is a visionary and would not let those who said it couldn't be done deter him from his goal of bringing UBI to the world. In doing so he has gained the friendship of many, and brought help to many more, and earned the admiration and respect of his peers, including and most of all, me.

Thank you, Tom!

David I Minkoff MD

A board-certified pediatrician, he and his wife Sue cofounded LifeWorks Wellness Center in 1997. A forty-three-time IRONMAN finisher, Dr. Minkoff is passionate about fitness and continues to train on a regular basis. He is an in-demand speaker and author of Amazon's best-selling book The Search for The Perfect Protein

Observation from a Scientist and a Skeptic

I must admit, when any technology (including my own) comes to my attention for critical review, I begin with a skeptical bias. On a human level, I often begin with the thought "I hope this is true", but after decades of very mixed progress from all quarters of the health and medical sector, I enter into any new consideration of a technology with the thought "OK, prove it to me." By 'proof', I mean not only cold hard data, but also an abundance good sense, reason, logic, insight, and intellectual integrity. After all, bad people all too often twist real data, take it out of context, cherry-pick the bits they want, distort or ignore that which they do not want, and present a compelling case for, not surprisingly, something they are selling.

Therefore, I assess any new information not just on the merits of the data presented, but also on the merits of the source. In the case of UBI, I can say that, although I had only a passing familiarity with the technical subject, the first person to present it to me in a coherent and comprehensive way was Tom Lowe. I know Tom to be a person of the highest integrity, with the best of intentions for human health and well-being. This is clear by his actions and his personal conduct. My skepticism was therefore based upon my lack of knowledge in the area of phototherapy, not on the source. So, I read his Invisible Cure with a skeptical eye, but receptive to Tom's writings on the basis of his high level of personal integrity.

Upon first reading, I found the book on UBI to be quite informative and inspiring. **I would now count this book as among the most important that I have ever read.** It has inspired me to re-imagine my own research and post-stroke

recovery strategy. Upon subsequent readings of the book, I collected the primary sources and references, assessed them scientifically, and I have come to the conclusion that Ultraviolet Blood Irradiation is indeed a technology whose time has come (again), and Tom's book is an excellent introduction to this topic. **I would consider it required reading for anyone in the health or medicine sector.**

Robert Dennis, PhD
Associate Professor of Biomedical Engineering
NCSU-UNC Joint Department of Biomedical Engineering
The original NASA TVEMF – PEMF systems Developer

Introduction

The Impetus to Explore Complementary/Alternative Medicine and UBI

I watched my son die. No parent, spouse, brother, or sister wants to see a loved one die. It is indelibly etched in my mind like the day that he was born. Matt was our firstborn. The firstborn of 10 natural-born children between Deb and I. We also adopted a beautiful girl as our 11th. It was a busy life, full of work, friends, church, and children. Then Matt started having seizures at the age of 16. They attributed it to the "catch-all" of epilepsy. At 20-years-old, with more episodes coming, they did another MRI and found a golf ball-sized tumor. Imaging software had come a long way between 1991 and 1995.

The tumor was resected, and we breathed a sigh of relief as they said it was benign and would not come back. That was 25 years ago. Matt died in February of 2018 after five resections, a lot of medications, and a somewhat deteriorating ability and capacity in his life. We had the great privilege of having him live with us for the last five years of his life.

In 2008, while Matt was struggling through life with a wife and six children, I was called by a friend. He told me about a new/old therapy that he had used in Africa at a mission hospital. This talented RN recounted his experience in Togo, West Africa. "It was amazing, Tom!" he said. He explained that they had a young boy with what they diagnosed as advanced rabies come into the hospital. The hospital had no medicines to treat him, so this RN decided to give the UBI (Ultraviolet Blood Irradiation) therapy a try. Since rabies is always fatal unless there is an inter-

vention, there was little to lose. On Tuesday, the boy had the first therapy. The next day they saw actual signs of recovery. Another two treatments were administered within the following days, and he said, "You wouldn't believe it; he made a full recovery and was discharged from the hospital!"

I couldn't help but feel skeptical about his miracle story. "Deadly rabies cured in just THREE days by ultraviolet light?" I thought, "That's just too good to be true. He was probably just overly excited."

As this friend pressed me about the potential of opening a clinic where we would exclusively offer this UBI therapy, I decided to humor him and do some research.

"What do they call it again?" I thought as I sat down in front of the computer screen. I racked my brain for a moment as the cursor blinked within Google's search engine box, just begging me to enter the words that would change my life. "Oh yeah, Ultraviolet Blood Irradiation," I remembered. I typed the words in and up popped several results. As I began to read, some of my initial skepticism slowly started to dissipate.

"Hmm…it's got 80 years of history. Okay, so it's been around awhile. Here it says that there are virtually no side effects and that it has an efficacy rate of 60-80%." I was starting to see a trend. "A positive effect on over 60 diseases," read another title.

I came across one success story, then another and another, like some of the ones that follow in this book.

Perhaps you are reading this as someone who is trying to help a loved one. Perhaps you, yourself, have struggled with a disease or disorder that has not been helped by conventional medicines. This book is for you. My son, Matt, was a big part of me wanting to find alternative medical help. It just seemed that there had to be more than drugs, tests, and "I'm sorry, we just don't have anything more that will help."

As you can imagine, I have a bit of skepticism about the medical system that is currently in place. There is a lot of good that has been done to help relieve a lot of suffering. There is also a lot of training, testing, and decisions that are made because it brings in "good money." Our current medical system is a big business, and with that often comes its own set of evils. UBI – ultraviolet blood irradiation, is unknown to conventional medicine. It works, it is safe, and it is inexpensive.

This started my journey of searching for answers. Being a researcher at heart and questioning this "unapproved" therapy, I set aside a couple of weeks for intense internet searching. "Who should I believe?" This question strikes at the heart of any true researcher. Over the years, I have discovered that many entities have vested interests in their studies. Unfortunately, because of ulterior motives, far too many medical studies cannot be trusted. In today's pharma-dominated culture, the concern is often not to get to the root of the illness and take care of the core issues but rather to relieve the symptoms and make some money in the process.

Studies are good, but studies can also be misleading. One can manipulate the results in their favor and make it appear positive when in the grand scheme of things, the medicine they are promoting does not contribute to the individual's overall sustained health.

My concern from the beginning was to come at this from a skeptic's point of view. At the heart of my efforts was a question that I needed to have answered: "Is all that I hear regarding UBI actually substantive, and if so, what am I going to do about it?"

This work has been truly a labor of love. In this book, I am giving you what I have come to know as a fantastic therapy. It is the cumulation of 12 years of research, working with and teaching

many physicians who have become my friends, and seeing marvelous recoveries of many patients.

My initial studies took me from one site to the next, and in the days that followed, the medical "truth" walls that I had built up to this type of "crazy talk" would slowly begin to crumble. A memory came flooding back to the day in 1975 when my first boy was born into this world. Initially, he was jaundiced…maybe you, too, have had a baby who was jaundiced. So, what does the hospital do? They put them under a bilirubin light (blue light) to help the liver break down the toxins so that the baby will not suffer brain damage. The same therapy that they used decades later to get my son healthier is still used today in many hospitals around the world.

For years, light has been used in medical therapy. In the past, exposure to sunshine was a part of the regimen of therapies for a number of disorders. This is called Heliotherapy.

Many are affected with SAD (Seasonal Affective Disorder), which is a recurrent major depressive disorder that usually manifests itself at a specific time of the year and entirely disappears otherwise. You can walk into almost any Walmart or similar store and find these special lights for home treatment.

You might like to know that my journey is still ongoing today. After my initial studies, I co-founded a UBI clinic where we treated many different diseases with astounding results. I was convinced. From sitting in the sunlight to treating scar tissue with a laser to re-growing hair with red light, to UBI - THE HEALING POWER OF LIGHT IS IRREFUTABLE!

In 2009, I started the clinic. A friend of mine, an M.D. that believed in what I was doing, gave his assistance in overseeing the clinic. It was strictly outpatient treatments. We had an RN who was an expert withdrawing blood and had been in an ICU environment for years. My job was to:

- Research into UBI
- Get patients into the clinic
- Deal with the overall running of this very small venture
- Look into making the machine and therapy the best that there was

A UBI machine was purchased, our physician supplied the credentials, and we bought our supplies and put out our "shingle." This was my 16th business. In the small office, I was able to see what seemed to be some miraculous recoveries for disorders that had been with a person for years. Let Russ relate his story:

Cardiovascular Patient - Russ

It started out like a bad cold that went into bronchitis. The doctor thought something else was going on because I was having a lot of shortness of breath. They ordered a chest X-ray and found that I had an enlarged heart. They did an echocardiogram and did various tests. It ended up that they said I had picked up a viral infection. When I asked what I can do, they said some resolve in a year or so and some never resolve.

In just two months, I could hardly walk 100 feet without being completely out of breath. I was just about to get a handicap sticker. I heard about the UBI and got the first treatment. And lo and behold, I had tremendous energy and started to walk again.

I had three treatments, and by the middle of February, I had a trip to NewYork planned. I got there, and I could walk a mile down the street in the cold and was not out of breath. My

latest heart tests show that I am coming back into the normal range of function.

In about 12 months, I saw results with cancer, tachycardia, incurable rashes, shingles, asthma, infections, pain reduction, MS, and more. This book is a testimony to those individuals who have walked before me and laid the groundwork of developing UBI. It is a testimony to the hurting patients who walked into our clinic and became a part of a healing therapy that proved to me its efficacy and safety. It is a testimony to the physicians who, around the US and the world, daily treat difficult disorders. It's a testimony to thousands who have been helped. It is a privilege and joy to hear even more of the unprecedented, spectacular results that are brought about by light.

– CHAPTER ONE –

Beyond Violet Light: Ultraviolet

In the beginning, God created the heavens and the earth… And God said let there be light.

Light, what is it? It was a mystery to the ancients and still has mysterious qualities today. Light and colors are often taken for granted. We walk in the light, play in the light, read by the light, are entertained with light, and warmed by the light.

Light allows crops to grow as it transforms its energy. It warms our world to the perfect temperature. We make solar panels to power satellites, light road signs, and charge batteries.

Some Medical Light Facts:

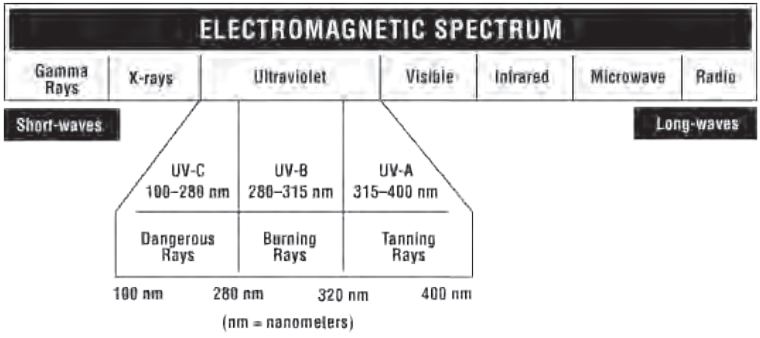
- Light can make your sagging skin tighter.
- Light can stimulate hair growth.
- Light reduces pain in joints.

- Light (or lack of it) affects our mood, helps with jet lag and depression.
- Light is used for psoriasis, vitiligo, eczema, and even excess bilirubin.
- Light can modify the blood in a beneficial way

Light has played a role in medicine for thousands of years but more specifically in the last 100 years. "The Ancient Greeks were the first to document both the theory and practice of solar therapy. Heliopolis, the Greek city of the sun, was famous for its healing temples, in which sunlight was broken up into its spectral components (colors), and each component was used for a specific medical problem."[A]

Even though light is used in some medical applications, it is generally thought to be "alternative medicine" and not something that the FDA approves of nor insurance companies pay for.

Beyond Violet



UV light is part of the spectrum that has a wavelength of 100-400 nanometers. You can see from the chart that UV is just a small part of the total electromagnetic spectrum ranging from the shorter (X-rays) to the longer (radio/TV broadcast bands). UV light is broken down into 4 lengths –

- vacuum UV – 100-200 nm
- UV-C from 200 nanometers (nm) to 280 nm – all absorbed in the atmosphere
- UV-B from 280 nm to 315 nm – mostly absorbed
- UV-A from 315 nm to 400 nm – not absorbed by the atmosphere

UV-C, being the most germicidal, is used for sterilization in both air and water. There are also applications for surfaces to be sanitized by UVC light. Perhaps you have a furnace UVC light that kills bacteria as air travels in front of it. Or, you can purchase a UV light pen for cleaning a glass of water in the wilderness.

UV-C light combines with oxygen in the upper atmosphere and produces the ozone layer that is above the earth. This ozone layer is spread out in the stratosphere from 6 to 30 miles above the earth. If you compressed the ozone, it would only be about 3mm thick or 1/8" thick. This thin blanket of protection is vital for life as we know it on earth as it stops all of UV-C's damaging rays.

There are many germicidal applications for UV-C light, from swimming pools to air circulation units to hospital room sterilization. UV-C light is great at "killing" bacteria and viruses in air and water.

UV-B makes for delayed tanning, sunburn, and blistering and affects the cells in the top layer of the skin. Regular glass windows block all UVB, as does a good cloud cover. UVB is responsible for vitamin D formation in the human body.

UV-A on the skin gives immediate tanning and affects the inner cells of the top layer of skin. Over 95% of the sun's UV rays are UV-A. Regular glass windows block 90% of UVA. UVA black lights are a long wave UV-A with a little visible violet. You

can use these lights to cause the glow in the dark effect of certain clothing or other uses.

The atmosphere blocks 77% of the sun's UV rays. At the zenith (highest in the sky), sunlight is 44% visible light, 3% UV radiation, and the rest infrared (heat).

UBI – Ultraviolet Blood Irradiation

It may seem like a very strange thought to expose blood to UV light and expect to get positive results. The experimentation began in 1923, right after the worst pandemic in modern US history. Many were looking for a way to fight infections. With the development of the Knott device, UBI was accepted into a number of hospitals. Many studies were written and published throughout the 1930s to 1950s in the US. Today, some studies continue to be conducted.

UBI is the most common name used in almost all of the previous studies. Names like Photopheresis, Hematogenic Oxidation Therapy, Quantum Hemotherapy, autotransfusion of UV-Irradiated Blood (AUVBI), Biophotonic therapy, Blood Irradiation Therapy, UBT and Photoluminescence have been used. They are all talking about taking a small amount of blood out of a patient and exposing it to UV light, and then reintroducing it back into the patient. A couple of variants of that is 1) Extracorporeal Photopheresis uses just UVA and 2) Laser blood irradiation (LBI) using individual colors through a fiber optic into the vein. Both will be discussed later in the book.

Irradiation does not always refer to radioactive decay. In UBI, it is the simple use of UV light to affect blood products and improve health. Sunlight is a sometimes call solar irradiance.

UBI's Simple Therapy

For the UBI therapy, a special glass tube (fused quartz) is used. It is called a cuvette and it is special in that it allows for about 90% transmission ratio of UV light into the blood.

In the United States, there are around 500 practitioners who use UBI daily as an effective, safe and relatively inexpensive therapy. It has been a real journey for me as I needed to go from an unbeliever to a researcher to starting a clinic for just UBI, to promoting it, and now educating thousands around the US and abroad.

Like many, I am privileged to expand upon another man's dream. Without the pioneers of the 1940s, there would be no UBI. They risked reputation and ridicule to bring to light a therapy that has now brought healing to over 1 million suffering patients.

If you are in the research mode and want to explore UBI further, I recommend www.ultraluxuv.com as a good website.

Links

A. https://www.healthcaredesignmagazine.com/architecture/healing-use-light-and-color/

– CHAPTER TWO –

The Story

UV Light and Blood – The story 1923 – 1942

It was a fantastic home on the Gulf of Mexico, north of Clearwater, Florida, with stunning views and a large, tiled patio. The small dock for a good-sized powerboat led to the house as the path weaved its way through future gardens. I could not have been prouder of this wonderful house that I, and others, had created. Now all things were in ruin. The house was okay – but it was built as a spec house. The plan was to profit a year's wages in building and selling. The market had been so hot, the prospects so good, and then

the economy crashed. The money invested was gone; now, our accomplishment was replaced with failure.

The year was 2008, the year of the mortgage crash. What was I to do? Reluctantly, the house was sold on a short sale, and back in Michigan, I trusted that God had some plan for me.

This was a short, negative episode of life that started me on my very positive UBI journey. Plans can fail, relationships may not last, or something upsets your life. Perhaps it is an essential part of how your life will proceed. It was for mine and also for others.

Consider the year 1945 when Chain, Florey, and Fleming created the first replicable, multi-use antibiotic – Penicillin; they would eventually win the Nobel Prize for medicine. It changed the look of modern medicine as it fanned the flames of future pharmaceuticals. This was also an unfortunate turn of events for Emmet Knott. He had championed his invention, the Hemo-Irradiator or Knott Machine, for the last 20 years. With this file-cabinet size machine, he crisscrossed the United States getting interested physicians to look at what it did. Some medical pioneers started using the device. It had cured hepatitis, tuberculosis, pneumonia, and a host of other incurable diseases in thousands of patients. In a few years, he did not know that his therapy would all but be destroyed by greedy leaders of the AMA.

Modern medicine has many aspects. There have been super-stellar discoveries that have saved millions of lives. There have also been some really dark chapters in its history. Even today, many feel that, in some ways, conventional medicine has strayed down the wrong path. Although we will touch on some of those aspects of medicine, our message here is one of hope.

UBI's story may start with one man's accomplishments, but it has developed into thousands of physicians worldwide,

making use of what he pushed for all of his life … the curing of diseases with a simple machine. Today, almost every large city has many alternatives to conventional treatments. A broken leg is best treated in an emergency room and a hospital. Chronic fatigue is often another story.

The 1918 Spanish Flu Pandemic was the deadliest in American history. By the time it was finished, over 675,000 Americans were dead out of 103 million people. It was especially deadly for the young – under 5-year-olds, 20-40-year-olds, and 65 and older.

Historical commentary from that time can be chilling. "Philadelphia is hit hard with the pandemic flu viruses – more than 500 corpses await burial, some for more than a week. Cold-storage plants are used as temporary morgues, a manufacturer of trolley cars donates 200 packing crates for use as coffins. Quarantines go into effect; our military is hard hit, the economy suffers."[1]

Dr Basil Hood in Charing Cross hospital, 1904. The doctor gave a graphic account of life and death at London's St. Marylebone Infirmary during the Spanish flu pandemic in 1918. Photograph: Wellcome Collection

One graphic account may help us imagine the scene. Basil Hood, a medical superintendent in London, wrote of the horrifying accounts. The hospital "literally reeled"…"All training, and indeed every sort of trimming went by the board." The staff fought like Trojans to feed the patients, scramble as best they could through the most elementary nursing and keep the delirious in bed!"

"Each day, the difficulties became more pronounced as the patients increased, and the nurses decreased, going down like ninepins themselves," Hood wrote. "Sad to relate some of these gallant girls lost their lives in this never-to-be-forgotten scourge, and as I write, I can see some of them now literally fighting to save their friends, then going down and dying themselves."

"One poor nurse, I remember, with a terribly acute influenzal pneumonia, became so distressed she could not stay in bed and insisted on being propped up against the wall by her bed until she was finally drowned in her profuse, thin blood-stained sputum." It was the worst and most distressing occurrence of my professional life."[2]

Emmet K. Knott is 21-years-old. He has known some who have died; he is spared.

With this as a background, this Seattle physicist and X-ray dealer begins to experiment. The year is 1923. He is joined by a then medical student named Lester Edblom. The pandemic has made its mark in the minds of everyone. This is an era before antibiotics. Infectious disease was far more widespread and uncontrollable. For an inventor, this is the time of racing thoughts,

Septicemia: invasion of the bloodstream by virulent microorganisms and especially bacteria along with their toxins from a local seat of infection accompanied especially by chills, fever, and prostration. Also called **blood poisoning**.

challenges, imaginations, and a possible cure. He knew the X-Ray machine basics and was working with patients and hospitals in "seeing" inside the body with the X-Ray. For some reason, his interest took him in a different direction.

He states that his basic idea was to stop bloodstream infections. What was the spur that moved him forward? Was he a compassionate man who desired to help others? This thought on curing infections was fueled by the literature and practices that were occurring at that time in medicine. In his own words, "*The first step taken was to review the literature on ultraviolet irradiation, in general, to determine what, if anything, had been accomplished along this line and the extent of success or failure."Knott – Aug 1948 Development of Ultraviolet Blood Irradiation*"[A]

Light had been used to treat lupus vulgaris – a form of tuberculosis of the skin. The scientist who worked with over 900 patients saw a 98% recovery rate. It won Niels Finsen, the Nobel Prize in 1903. This also led to the idea that the light was somehow getting through the skin and into the blood.

Heliotherapy (sunlight) for tuberculosis patients in the 1920s was standard practice before the advent of antibiotics and prior to UBI. In 1855, Rikli, a Swiss doctor, opened a thermal treatment station in Slovenia. Along with Finsen's research and success, the world of modern phototherapy was born.

Dr. Walter Ude reported on a series of successful treatments. A bacterial skin infection caused these 100 cases of Erysipelas. It was also known as St. Anthony's fire due to the intense rash associated with it. This Minnesotan physician was a pioneer and had to take the criticism of many in the 1920s, claiming a nearly 100% cure rate with U.V. skin irradiation.[B]

Here is what was published in a medical journal of the time regarding his success.

"There is no scientific justification for the use of ultra-violet radiation on the lesions of erysipelas. This agent has not a specific action, and, more important, when used in therapeutic dosage it is an irritant. Not infrequently an irritant, locally applied, aggravates erysipelas, a disorder which at its best is serious." Journal of the American Medical Association Vol 13, NO.6

The sarcastic comment from today's "Radiology" site was: "This was undoubtedly written by one who had never seen the application of this type of treatment."

E. K. Knott in the early 20's - photograph courtesy of E.K. Knott III

This hostile climate has hardly abated. Emmet Knott was to face criticism, rejection, and scoffing, along with making enemies in established hospitals. This was yet in the future as the ideals of this young inventor were to come to fruition.

Emmet had always found time for one of his pastimes and passions – that of hunting. For a short period, he had made his way to Spokane, WA, perhaps just

getting away from the city of Seattle to hunt. To the north in Canada was a perfect moose habitat. Emmet was drawn to the city of Trail, BC – a small burg nestled in the mountains by the beautiful Columbia River. His inquiry for a guide produced a man by the name of Lean. His daughter, Norma Irene, was but 19 at the time, but love grew quickly, and Emmet (then 29) married her in August of 1925. She was a nurse, Emmet, a radiologist, so medicine was already in the family. Strange in today's time was the question on the marriage certificate – can you read and can you write. Both affirmed that they could.

Sometime soon after, back in Seattle, Emmet and Lester started work. On the idea of blood irradiation. They needed to find a U.V. generator, the power source for this high-intensity U.V. lamp, quartz glass, and someone to cut it, a metal fabricator, and some basic medical equipment. Together they constructed a crude "Knott machine" that withdrew blood, citrated it, so it did not coagulate, and passed it through a quartz-covered container that was irradiated by a powerful U.V. light.

Dog Pound Experiments

If it was close to the device that was submitted to the patent office on March 3, 1927, it was quite basic but innovative. It was time to make their way to the "dog pound" to start an experiment. The idea was to irradiate the blood of the dogs and see what happened.

> *"Strains of Staphylococcus aureus and hemolytic streptococcus of known virulence to dogs were used. These organisms were injected in gross amounts intravenously into dogs and cultures taken periodically to ensure that acute septicemia developed. The animals were then irradiated by tapping two veins and*

pumping the blood from one to the other through the irradiation chamber. The pumping was accomplished with a Luer syringe and a three-way valve. The process was continued until the estimated total volume of the animal's blood had been irradiated. As the blood passed through the irradiation

chamber, it was subjected to ultraviolet irradiation from a Burdick water-cooled ultraviolet generator held in contact with the chamber, the actual source of the ultraviolet being approximately 3 cm. from the chamber window."

To their dismay, "The test animals all died on the fifth to seventh day from what appeared to be a combination of profound depression, a progressive respiratory slow-up, and failure. All the animals at the time of death had negative blood cultures, thus indicating that the organisms had been destroyed, a marked contrast to the control animals in whom death was preceded by overwhelming septicemia."

This experimentation went on for a few years. The device improved, but the dogs kept dying. *

"One winter night, after several months of this kind of thing, stubborn Mr. Knott went down to the dog hospital with a doctor friend. The veterinarian was busy and sent Mr. Knott out to a shed to do his work. The dog was violently ill, the shed was cold, the light poor. So, Mr. Knott irradiated only a small amount of blood, bundled up the dog, went home.

When he came back several days later, he was amazed to find that the dog was well. As it must on all researchers, an intimation dawned on him: he had been giving his dogs too much irradiation; ultraviolet rays in large amounts are deadly, in tiny amounts have natural curative power. Hotfoot to the dog pound for more dogs went Mr. Knott." Time Magazine June 24, 1940

First UBI on a Patient

By that time, the year was 1928. It is marked as the first UBI on a human. It would have taken years longer for this first treatment to occur if there had not been a unique circumstance again. The first patient had a septic abortion. She was near death – called moribund. Her condition was complicated by hemolytic streptococcus septicemia. High fever, foul-smelling vaginal discharge, chills, and abdominal pain. This not uncommon condition was rapidly followed by death. Fortunately, this was the very strain of bacteria that had been used in the dogs.

Sepsis: a life-threatening complication of an infection. Sepsis occurs when chemicals released in the bloodstream to fight an infection trigger inflammation throughout the body. This can cause a cascade of changes that damage multiple organ systems, leading them to fail. Thirty to fifty percent result in death. Symptoms include fever, difficulty breathing, low blood pressure, fast heart rate, and mental confusion. Conventional treatment includes antibiotics and intravenous fluids.

> *"Scarcely had he settled to his task when his doctor friend begged him to come and irradiate his sister who was dying of septicemia. Since the case was hopeless, the other physicians in the case consented. Mr. Knott irradiated the woman's blood; she recovered. Today she is strong and healthy, the mother of a husky child. (Knott states it was two children, and he found her to be in good health with normal urinalysis and blood count in 1940.)* Time Magazine, Monday, June 24, 1940

"The literature suggested that overexposure to ultraviolet rays could conceivably produce a profound depressive effect. It was then attempted to determine the susceptibility or toler-

ance of the host to ultraviolet rays impinged directly upon the bloodstream. This was approached by two methods:

1. To irradiate the entire bloodstream, but with reduced dosages to determine the maximum the animal could stand, and
2. To maintain the dosage of the earlier experiment and to reduce the total volume irradiated." [3]

Knott started to experiment with the two methods stated above. Experimentations continued until it became apparent that reducing the amount of blood used and defining the controlled amount of energy to use was the solution. By 1933 he was ready.

It is unknown what happened to Lester Edblom. He received his M.D. degree from the University of Oregon in 1927. Dr. Edblom was connected to the Eugene Hospital Clinic in Oregon since 1928, after he completed his internship in Seattle. By 1928, he was some 300 miles away from Seattle. Their joint patent was in place, but UBI's future was all on Emmet Knott.

Roaring 20's and the Crash of '29

1928 – The future was looking good. There was an exuberant and free-wheeling pop culture that had developed in contrast to the stagnancy of the years of World War I. Economic boom and growth in construction, automobiles, telephones, radios, sports heroes, jazz, and movie stars were the USA's new "life." The feeling of the 1920s was that feeling of novelty and a break from traditions.

Perhaps Emmet Knott had the perfect break from traditional therapies with this new "Hemo-Irradiator." Although things looked positive, looming ahead was a stock market crash

that occurred in October of 1929. At that point in time, the economy went into a tailspin, taking with it hopes of promoting and selling a novel therapy machine.

There were a couple of theories of why Emmet did not do a UBI treatment from 1928 until 1933. One was that he was such a devout scientist that he needed to wait and see what happened to the one woman who had been cured of sepsis. As good as that may sound today, it was probably not the case. Who would make a machine, find out its safety with dogs and then not use it again? Emmet had said that one of the dogs lived several years with him being a family pet. The other theory is that he could not get a physician to try the therapy during troubled times. It would seem to be the correct one and was affirmed in the 1940 Time magazine article.

It was 1933, and a friendship had developed between Dr. Virgil Hancock and E.M. Knott. It was time to start using the therapy for good. Thousands of patients were dying from septicemia (blood poisoning). The next patient to receive UBI was again in Seattle and almost identical to the first.

> *"This first became possible in 1933. Virgil K. Hancock, M.D., of Seattle, Washington, with James Tate Mason, M.D., a consultant, felt justified in using the procedure as a last resort on a patient, apparently moribund, with advanced hemolytic streptococcus septicemia. This case was described in detail by Hancock and Knott in the first published article reporting this technique. A successful conclusion of the case led to further use in similar cases of a serious nature in which it was believed the patient was in a moribund state."*[4]

> *"Dr. James Tate Mason, one-time president of the American Medical Association, heard about this case and encouraged Mr. Knott to go ahead with his experiments. But Dr. Mason soon*

died, and for five years, Mr. Knott could find no doctors who were willing to try so radical a procedure." Time Magazine, Monday, June 24, 1940

Emmet Kennard Knott

The death of a young woman was avoided once again. It would be thought that this therapy would burst onto the scene and be accepted as the only reasonable alternative when a patient had a serious infection. This did happen in a few hospitals – but too few. It was the start that Emmet Knott needed.

The year 1937 brought on board more physicians as Emmet Knott traveled around the country. Dr. E.W. Rebbeck started a program in Pittsburg at Shadyside Hospital. Dr. Miley and Eberhard in Hahnemann Medical College Hospital of Philadelphia, and Dr. Henry Barrett began in New York. In 1939, Dr. George Miley, M.D., made a study of the effects of 97 UBI treatments given to people suffering from various diseases. His observations:

1. A 58% increase in the venous oxygen content in ten minutes.
2. A 9% decrease in venous oxygen after a half hour.
3. A 50% increase in venous oxygen one hour to one month after treatment.

By the mid-1940s, UBI had really begun to roll. Dr. Miley reported using UBI on viral pneumonia would cure this condition rather quickly. He reported:

1. Complete subsidence of toxic symptoms 24-76 hours after a single treatment.
2. Disappearance of cough in 3-7 days.

3. X-ray evidence of complete clearing of the lungs within 24-96 hours after a single treatment[5]

Dr. Henry Barrett reported on 110 cases of UBI in 1940 (Medical Clinics of North America, May 1940).[6] Most patients received one treatment, some as many as eight.

Barrett reported on his 110 cases:

1. No detrimental reactions from UBI.
2. Improvement is frequently immediate.
3. Increase in peripheral circulation (due to vasodilation).
4. Increase in oxygen combining power of the blood.
5. Inactivation of toxins in the blood.

Dr. Miley also reported on six patients with herpes zoster infection – "shingles." The infection was nullified to the point that the patients became asymptomatic with no relapses.

In January 1942, Dr. Miley made the following observations:

"The detoxification effect of ultraviolet is generally not known by the medical profession and certainly has not been emphasized enough. The inactivation of snake venoms and bacterial toxins are examples of what may be accomplished by ultraviolet. The increase of blood irradiated with ultraviolet to absorb oxygen has been demonstrated. As a rule, rather low dosages of externally applied ultraviolet radiations stimulate the general resistance of animals and human beings to infection." [7]

Dr. Miley, a practitioner of thousands of UBI treatments in the 1940's, made this comment about Emmet Knott:

"I think personally that this is one of the greatest contributions to medicine ever made by a citizen of the United States."

Also, in 1942, Dr. Hancock was on staff at Virginia Mason, Seattle General, and Swedish Hospital in Seattle, Washington, and wrote a paper on 5 case studies in bloodstream infections, all with good results.

In the 1940s, there are 25 different referenced studies on UBI. The findings were conclusive and repetitive. Although it was a handful of physicians around the country, the results were staggering. Fortunately, this was used in hospitals that allowed for a more formal study and record keeping. Many of these studies were conducted on hundreds of patients over a series of years. The results:

- Infections were cured
- Blood values were modulated
- Increase in new red blood cells occurred
- Toxins in the body were neutralized
- Autoimmune disorders quieted

Emmet Knott continued traveling around the country. He knew that the machine and the procedure saved lives. His passion carried him from New York to Los Angeles.

Today the physicians that are using UBI are seeing the same results. Disorders that had not responded to medicines are responding to UBI. It is not tens of thousands over a 30-year period; now, hundreds of thousands of UBI therapies are accomplished over five years. The real winners are the patients. As one helped patient put it: "Thank God for UBI." I think that is an appropriate statement.

*Decades later, Russian researchers repeated Knott's experiment on 12 apparently healthy dogs. They reported that not only was there no harmful effect, the dogs became unusually energetic and lively, but not aggressive after the therapy. V

I Karandashov et al., U.V. Irradiations of the Entire Circulating Blood [Russia] Vestnik Rossiiskori Akademii Meditsinskikh Nauk (1993) no. 9, pg. 38-41. Presumably, these Russian researchers used a lower dose than Knott had used.[8]

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EBV – Chronic Epstein-Barr Virus

My husband was taken down by EBV, and his life was saved by UBI.

Of course, we didn't know what was wrong for over ten+ years… He had a long list of "diagnosis"– Hashimoto's, Depression, Chronic Fatigue, Joint Pain, Brain Fog… He went down slowly over a long time (ten years), and by the end, he was bedridden, unable to work, disabled physically and mentally.

I was filling out disability paperwork, scared to death, trying to figure out how I was going to support our 3 kids and sick husband myself. Through research, I finally figured out he had EBV, labs confirmed it, but the doctors still told us, "no treatment, no cure."

I refused to believe it. Through more research, I learned about UBI, and it seemed like it just might work. What did we have to lose? I flew my husband across the country to get the treatments, and within weeks my husband experienced a full restoration. And I don't mean a little better; I mean like playing basketball numerous times a week, working full time, and living life to the fullest again.

Our marriage felt brand new again. We had gone through such a long period of darkness. I know many others experience this. I wish they knew about the healing power of light on a wicked virus! It sounds unbelievable even now, 3 years later, writing this! He is still back to living. Thank God for UBI.

Danielle and Marty Howley, SC

Danielle and Marty Howley, SC

– CHAPTER THREE –

Blast from the Past

The Media and the Knott Studies

History and precedent can add validity to a medical therapy. Although procedures, techniques, and protocols rapidly change, there are some disorders that stubbornly resist the "best" of today's medicine. In the world of infections, there is a major emphasis being placed on Antimicrobial Resistance (ARM) pathogens. The ESKAPE set of bacteria cause major concerns as pathogens morph in response to drugs. The result is that people 'die,' and we have little to no good therapy solution.

In 2017, I attended the Infection Prevention Society Annual Conference in Manchester, England. Topics on antimicrobial resistance and, of course, infection prevention were discussed. My goal was to attract attention to the new CE certified medical UBI device that had just been approved for use in the United Kingdom. A professional booth was designed, hotels arranged, a local medical person hired to discuss and show the device and its procedure, and it was all for naught. www.ultraluxuv.com

At this conference and subsequent talks with UK researchers, there was ZERO interest in a device that could cure sepsis or take on resistant bacteria. WHY?

1. There were almost no current FDA studies and no university medical support.
2. There were no big medical names behind it.
3. There was no incentive (besides curing patients) to promote its use.
4. It was not conventional medicine.
5. There is little money behind it to make it happen.

Doesn't history count? If a cure existed in the 1940s for tuberculosis and sepsis, should it be ignored because it is the year 2020?

Imagine losing a daughter to pneumonia or a father to sepsis, or a sister to an infection caused by pregnancy. There were few drugs back in the 1940s to help with these issues. Imagine then that you hear of a device that is being used in major hospitals around the US. It is touting miraculous cures. Wouldn't you want to know more? From Time magazine to the New York Times, UBI was heralded.

A physician called me from Pittsburg a few years back and sold me a file box full of correspondence from all of the main historical players in UBI. It had the official minutes of the American Blood Irradiation Society (ABIS), 2,000 letters of correspondence, and numerous news articles on this new therapy UBI. The file had been kept by Dr. E.W. Rebbeck, one of the many pioneers of UBI.

It is and was great to see all of the letters and writings, but of special interest were the original articles and some pictures of UBI in action. The letters tell the fantastic story of the struggle of introducing UBI into the drug and AMA dominated world.

TULSA DAILY WORLD
Tulsa, Oklahoma Tuesday January 2, 1951 FIVE CENTS

Machine Helps Miracle Drugs in Disease Fight

By Yvonne Litchfield
Of the World Staff

Miracle drugs have held the spotlight in the fight against infections but a machine has played an important role in the battle.

It is known as the Knott Hemo-Irradiation machine. Hillcrest Memorial Hospital has had the machine for two years, but until recently it was used only in last resort cases because it is still under "controlled study".

Monday for the first time, it was used on a patient with nephritis, a kidney disease.

Until recently it was used only to fight infections. However, its value in fighting the small virus diseases has been proven many times. It works in cases where antibiotic drugs fail.

Like many other dramatic discoveries in medicine the system for the use of the machine was found by mistake.

Back in 1920 a physician was attempting to kill bacteria in the blood stream by exposing the blood directly to ultra-violet rays.

The experiment was performed on dogs and all the dogs died.

Then one cold night in the laboratory where the physician was working the machine froze up halfway through the process. The dog lived and his infection was cured.

It wasn't until 1928 that the system was tried on a human and it worked with the expected dramatic results. It was tried again in 1933 with the same success against acute infections and today 180,000 patients have received the treatment.

There have been no recorded harmful effects from the use of the ultra-violet ray. Now being used throughout the United States in controlled study the machine has cut down the incident of recurrent attacks of acute rheumatic fever to less than one percent.

Some surgeons use it following bladder surgery.

Some physicians claim it is the only effective treatment for virus pneumonia. In one study of 631 women with pelvic inflammatory disease following childbirth it was found that by using the machine operations were unnecessary in 80% of the cases.

In a controlled study of its use on polio patients one physician used the machine on every other victim in an epidemic of bulbar polio. Forty percent of the patient not given the ultra-violet ray died, while only 9 per cent of those undergoing the treatment died.

Doctors have obtained good results in its use in peritonitis, typhoid fever, and limited results with bronchial asthma.

In general, the machine could be used in any disease where it is necessary to increase the amount of oxygen in the blood.

It is usable in disease where the physician wants to dilate the blood vessels or to increase the ability of white cells to destroy bacteria.

Staff Physicians at hillcrest recently attended the International College of Surgeons in Cleveland to study the most recent developments in the use of the "blood" machine.

MACHINE WARS ON NEPHRITIS

A hemo-irradiation machine is used in the fight against nephritis, a kidney disease, for the first time in a Tulsa hospital. The young victim of the disease is Everett Honaker, Jr. 5-year-old son of Mrs Everett Honaker, Catoosa. Blood is removed from his body, passed by the ultraviolet ray then pumped back into the veins. Treating the child are Dr. W.L. Fox and Nurse Emma Dean Reed

UBI Headlines and News Articles from 1940 - 1952

'Internal Sun' Kills Deadly Germs; Blood Removed for Bath in Rays – *June 10, 1940, New York Times* - ***New Treatment for Infection Demonstrated on Eve of Opening Here of Convention of 10,000 Physicians and Surgeons***. *The Knott machine was one of 250 exhibits on "advances in medicine" at the AMA conference. It was "hailed by physicians who have employed it as a milestone in medicine."*

A.M.A. Convention Opens Here - *June 10th, 1940. The New York Sun - in the 5-paragraph article "UV light protects the health of fighting men…" This new method has been used successfully to treat streptococcus and other blood infections…"*

Experts tell of Ultraviolet Blood Therapy – *Nov 16, 1948 - St Louis Star-Times - The occasion was the 13th*

annual assembly of the International College of Surgeons, and Dr. Olney from Lincoln, NE, presented on UBI and discussed the now 60,000 therapies that have been accomplished.

Machine Helps Miracle Drugs in Disease Fight *– Jan 2, 1951 - Tulsa Daily World - Hillcrest hospital is using the Knott machine to fight nephritis on a five-year-old boy named Everett. Records show that he lived to the age of 78. He is the boy pictured in the Tulsa World article.*

Medical Preparedness Pledged by Physicians *– June 11, 1940 - Daily Mirror - New York - Regarding the AMA convention - "Center of greatest Interest appeared to be the Hemo-Irradiator with 6,000 successful test cases…"*

Irradiated Blood – *Time Magazine June 24, 1940 - Story of the success of UBI with a picture of Dr. George Miley of Hahnemann Hospital in Philadelphia. He is one of UBI's most prolific researchers.*

Inventor of Blood "Sunbath" Says City Leads in Its Use – July 3, 1940 - *Pittsburg Post - Gazette* - ***Sensational Recoveries Claimed in Pneumonia, Blood Poisoning for "Hemo-Irradiator"*** "The effect of the rays, in combination with standard medical practices, restored apparently hopeless cases to health…"

Scientist Tells of Ultraviolet Ray Research – *17 Years of Work Finally Evolves New Aid for Doctors - July 3, 1940 - Pittsburg Press*

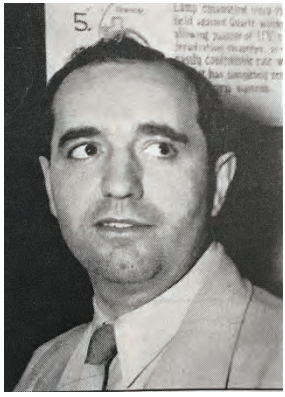
Blood 'Dry Cleaned' of Germs – *July 6, 1941 - The Pittsburgh Sun-Telegraph - Picture and comments on doing the therapy on an influenza patient.*

New Treatment Described for Blood Poisoning – Ultra-Violet Rays Are Used, Shadyside Surgeon Tells Therapy Congress – *Sept 13, 1942 - The Pittsburg Press. Reporting on hundreds of treatments, Dr. E.W. Rebbeck has seen cures with undulant fever, peritonitis, and wound infections.*

Chicago Host to 35,000 for AMA Conference *July 1948 – General Electric X-Ray News - UV Blood Irradiation article on the front page. Dr. E.V. Madey of Chicago told of rapid clinical improvements from acute virus infections with UBI.*

UBI Cures Children with Acute Rheumatic Heart Disease – *June 13, 1949 - Time Magazine Medicine: UBI - 22 consecutive cases in children aged 3-13 were successfully treated.*

Doctors Can Now Wash Away Disease by "Dry-Cleaning" the Blood – *Jan 13, 1952 - St Louis Globe-Democrat - "Twenty thousand patients have already had their blood filtered under Ultraviolet light… "Dying men and women, whom sulfa drugs and similar treatments could not save, have been restored from peritonitis, pneumonia, and bacterial heart troubles."*



Dr George Miley in 1940

It was in the news. These clippings are a small part of the publicity that went out regarding UBI. The machine was used in about 50 different hospitals. Some of those did extensive studies. Yes, the media is one indication of interest. Some of the articles are not fully accurate, but they push UBI into the awareness of the public.

Two articles by Time magazine both proclaimed very positive results with UBI.

Time Magazine Monday, Jun. 13, 1949, reported on physicians in New York

"… Drs. Valinta, P. Wasson, George P. Miley, and Preston M. Dunning of the New York Infirmary decided to use the technique on children with acute rheumatic heart disease. Last week they reported success in 22 consecutive cases.

All patients left the hospital without signs of rheumatic heart disease except mechanical damage that had already taken place in the heart …The three doctors concluded that "UBI" (ultraviolet blood irradiation) is safe and may prove, after further tests, to be the best treatment available."

The present state of UBI: Alternative/Holistic Physicians

In the United States, there are alternative physicians who rarely see someone with acute pneumonia. These sick patients most often head to the hospital, and rightly they should. But these clinical physicians do treat some

UBI Research Publications

3,000+ Patients

20 Physician/Authors

20+ years of Publishing

18 Different Medical Journals

36 different diseases and varied kinds of serious infections

All reporting success

of the worst of the worst of chronic disorders; for example, EBV, Viral heart issues, Vascular disorders, COPD, Chronic fatigue, autoimmune disorders, Lyme, non-healing wounds, infections, and hepatitis. These suffering folks have already been through the medical system, tried a myriad of drugs, and are still hurting.

UBI has been one of the tools that are growing in popularity in this "under the radar" community. UBI is being used. UBI is successful. UBI is safe. Many chronic infections, viral and bacterial, have been healed. Non-healing MRSA wounds have been healed by UBI. Women who have miscarried multiple times and gone everywhere for help were helped with UBI.

This immune modulator helps the system heal itself. The Russians seemed to take over UBI in the 70s -90s. Of the 210 studies that I have found that are directly on UBI and or LBI, 74 are Russian studies. There is also a host of other Russian studies that could be explored and German studies also.

Fifty Published Studies using the Knott Technique

Another, more major aspect was the medical studies that were conducted and published from 1934-1955 using the Knott therapy. There were over 3,000 patients with over 20 independent physician authors over a period of 20 years reporting and then publishing in 18 different medical journals on 36 different diseases and varied kinds of serious infections — all reporting success.

We will look at other studies that are more current, but this list should astound even the most cynical contemporary physician. These were physicians in hospitals who kept careful records. They knew that the only way to get this out to the world was to take the time to publish and speak on behalf of a suffering humanity. Thousands in those years found healing instead of disability and or death. Every one of these 50 studies can be pulled

up and read, analyzed, and critiqued. The total list is available on the following page.

This therapy was often done in a surgery suite under sterile conditions. At our point in medical history, it makes it all the more imperative to bring UBI into use against antibiotic-resistant pathogens. Patients on a ventilator with viral pneumonia can have one more successful tool in our world of healing.

These documented studies showed fevers lowered, deaths reduced, and lessened hospital stays. The studies dealt with:

- Blood Stream Infections
- Sepsis
- Pus producing infections
- Double septicemia
- Staph Infections
- Post-abortion sepsis
- Toxin levels
- Pneumonia (viral and Bacterial)
- Peritonitis
- E Coli Sepsis
- Polio
- Botulism
- Biliary Disease
- Rheumatic Fever
- Eye Infections
- Viral
- Hepatitis

List of Knott Technique from 1934 – 1955

1934	Knott, E. K.	Irradiated blood transfusion in the treatment of infections.
1935	Hancock, V. K.	Irradiated Blood Transfusion: In Treatment of Infections
1939	Miley, George	The UV irradiation of auto-transfused human blood; studies in oxygen absorption values.
1940	Barrett, Henry A	The irradiation of autotransfused blood by UV spectral energy:110 cases.
1941	MILEY, G.	A method of irradiating circulating blood in vitro with ultraviolet spectral energy. Studies of its physiological affects in vivo application in humans.
1941	Rebbeck, E. W.	Ultraviolet irradiation of auto-transfused blood in the treatment of puerperal sepsis.
1942	Rebbeck, E. W.	Double Septicemia Following Prostatectomy, Knott Technic of UBI , Case Report
1942	Hancock, V. K.	Treatment of Blood Stream Infections with Hemo-Irradiation
1942	Miley, George.	The Knott Technic of Ultraviolet Blood Irradiation, Case Report,"
1942	Miley, George.	Ultraviolet blood irradiation.
1942	Miley, George.	Ultraviolet blood irradiation therapy (Knott technic) in acute pyogenic infections.
1942	Rebbeck, E. W.	UV irradiation of auto-transfused blood in the treatment of post- abortional sepsis.
1942	Rebbeck, E. W.	UV irradiation of autotransfused blood in acute appendiceal perforation with abscesses
1942	Rebbeck, E. W.	Double septicemia following prostatectomy treated by the Knott technic of UBI radiation.
1943	Miley, George	Disappearance of hemolytic staphs aureus septicemia following UBI therapy Knott Technic
1943	Barrett, Henry	Five years' experience with hemo-irradiations.
1943	Blundell, G	Observations on the effects of UV (Knott technic) on bacteria and their toxins
1943	Toomey, J.A.	Treatment of experimental poliomyelitis
1943	Miley, G. P.	Preliminary report of results observed in eighty cases of intractable bronchial asthma.
1943	Miley, George	Treatment of 8 Cases of Atypical Pneumonia with Ultraviolet Blood Irradiation
1943	Miley, George	The Knott technic of ultraviolet blood irradiation as a control of infection in peritonitis.
1943	Miley, George.	The control of acute thrombophlebitis with ultraviolet blood irradiation therapy.
1943	Rebbeck, E. W.	Preoperative hemoirradiations.
1943	Rebbeck, E. W.	Ultraviolet irradiation of blood in the treatment of Escherichia coli septicemia.
1944	Davidson, Wm.	Ultraviolet irradiation relative to anoxia and bends susceptibility
1944	Miley, George.	Present status of ultraviolet blood irradiation (Knott technic).
1944	Miley, George.	Efficacy of ultraviolet blood irradiation therapy in the control of staphylococcemias.
1944	Miley, George.	Ultraviolet blood irradiation therapy in acute poliomyelitis.
1944	Miley, George.	Ultraviolet blood irradiation therapy (Knott technic) in non-healing wounds.
1944	Bradley, H.A.	Autotransfusion of Irradiated Blood
1945	Miley, George	Ultraviolet Blood Irradiation Therapy (Knott Technique)
1946	Miley, G. P.	Ultraviolet blood irradiation of apparently intractable bronchial asthma.
1946	Miley, George.	Recovery from botulism coma following ultraviolet blood irradiation (Knott technic).
1946	Olney, R. C.	Ultraviolet blood irradiation in biliary disease.
1947	Miley, George	Ultraviolet blood irradiation therapy: further studies in acute infections.
1947	Olney, R. C.	Ultraviolet blood irradiation treatment of pelvic cellulitis.
1948	Knott E.K.	Development of ultraviolet blood irradiation.
1948	Miley, G. P.	Ultraviolet blood irradiation therapy in acute virus-like infections.
1949	Lewis, H.T. Jr	Uses of ultraviolet Irradiation Therapy (Knott Technic) in Atypical or virus Pneumonia
1949	Miley, G.P.	Ultraviolet Blood Irradiation Therapy (Knott Technique) in Thrombophlebitis
1949	Olney R.C.	The role of ultraviolet blood irradiation therapy, Knott technic, in surgery.
1949	Rebbeck, EW	Use of UBI in Typhoid Fever
1950	Barger G.J.P	Blood: ultraviolet irradiation (Knott technic).
1950	Miley, George	Ultraviolet Blood Irradiation Therapy in Rheumatic Fever in Children
1950	Rebbeck, E. W.	Use of Ultraviolet Blood Irradiation (Knott Technique) in Biliary Tract Surgery
1951	REBBECK, E. W.	Further Studies With Ultraviolet Blood Therapy (Knott Technic) In Septic Abortions
1951	Neff, Floyd E.	Use of Ultraviolet Blood Irradiation in the Treatment of Bursitis and Tendinitis calcareous
1952	Farmer D.F.	The Use of Hemo-Irradiation (Knot Technique) in Eye Infections
1953	Miley, G.P.	Control of Deltoid Bursitis with the Knott Technique of Blood Irradiation Therapy
1954	Schultz, Ivan T.	Use of the Knott technic of blood irradiation in cases of threatened and inevitable abortion
1955	Olney, R. C.	Treatment of Viral hepatitis with the Knott Technic of blood irradiation

Some abbreviations have been made. Also just primary investigators have been listed

These studies/references and a lot more can be accessed at www.InvisibleCure.com

You do not have to read each of these studies. The contents of this book contain what you need to know about UBI. Of course, you can study each one. You would have to purchase some of them. Many of them are in abstract form and on the internet.

These brave pioneers gave us a wealth of data. Dr. William Campbell Douglass stated it well on the back cover of his 1993 book on UBI entitled "Into the Light."

"If you knew of a procedure that could save thousands - maybe millions - would you cover it up? It is unthinkable that what could be the best solution ever to stopping the world's killer diseases is being ignored, scorned, and rejected. But that is exactly what is happening right now. The procedure is called "photoluminescence (UBI)." It is a thoroughly tested, proven therapy that uses the healing power of light to perform almost miraculous cures. This remarkable treatment works its incredible cures by stimulating the body's OWN immune responses. That is why it cures so many ailments and why it has been especially effective against AIDS. Yet, 50 years ago, it virtually disappeared from the halls of medicine."

Heliotherapy – Sunlight therapy

Sun avoidance is as hazardous to your health as smoking. Ever heard anything like that?

There is a tremendous push to stay out of the sun and not be exposed. "Make sure that you put on the sunblock." Regarding tuberculosis, sun therapy was utilized for years in Europe. Drugs and UBI can do wonders to help but have not been effective in the complete eradication of TB (tuberculosis). Heliotherapy was used in the early 20th century to effectively treat TB patients, and Dr. Aguste Rollier's records of 1,129 surgical TB cases showed that heliotherapy cured 87% of "non-infectious cases" and 76% of "infectious cases." [1]

Among 158 patients with tuberculosis of the hip, 125 were cured, and 102 "regained complete recovery of articular function." And according to one source, "During one period of time just following World War I - 1,746 of the 2,167 tubercular patients who were under Rollier's care completely recovered health. The only failures were among those who had allowed their tuberculosis to enter its most advanced stages." [2]

Three benefits of UV sun exposure are the production of vitamin D, improvement in mood, and increased energy. One minimal skin reddening dose of sunlight UV radiation provides the equivalent of about 20,000 IU of vitamin D2, taken as an oral supplement.

In a very telling book called "Embrace the Sun," Dr. Marc Sorenson and Dr. William Grant put down the myth regarding sun exposure and validate its benefits. http://sunlightinstitute.org.

- Women who are regularly in the sun have one-tenth the risk of breast cancer as women who avoid the sun.
- Safe, regular sun exposure can eliminate or reduce depression.

- With the advent of sunscreen and sun avoidance, melanoma incidence has skyrocketed, increasing by 3,000% since 1935.
- Sun exposure is associated with a remarkable reduction of many common diseases such as cancers, heart disease, auto-immune diseases, the flu, Parkinson's, multiple sclerosis, and infertility.
- Sun exposure increases the likelihood of a healthy pregnancy and a healthy baby.
- Women who are sun-seekers have only one-eleventh the risk of a hip fracture as sun avoiders.

They also call attention to the billion-dollar industry of "sun blockers" and their advocates, the dermatologists. Another great resource is www.canceractive.com. They have been pushing their "Safe Sun campaign"[A] for more than a decade. Along with a world of valuable information on cancer, they have tried to educate thousands on healthy lifestyles… one of them being – get into the sun.

From their site: "The latest evidence is that 300,000 people die prematurely in America every year because of past misinformation about sunshine."[B]

References

1. Clark, W. "Treatment of Bone and joint tuberculosis with Tuberculin and Heliotherapy", *Journal of Bone and Joint Surgery* 1923;5:721-39.)

2. Rollier A. *Heliotherapy:With Special Consideration of Surgical Tuberculosis,* 2nd edition. Translated by G. de Swietochowski, MD. New York: Oxford University Press; 1927.

Links

A. https://www.canceractive.com/article/be-safe-in-the-sun-the-canceractive-safe-sun-campaign

B. http://sunlightinstitute.org/known-nearly-100-years-sun-exposure-protects-tuberculosis/

– CHAPTER FOUR –

The Killing of "Genius" Cures by the AMA

Being a contrarian has its advantages and disadvantages. Growing up with the scientific method and applying that to life can be very rewarding. It also seems to be continually asking the question, "How do you know that is the truth?" or "Can that be repeated?"

The world is a place beset with good and evil. Better said, man's nature has a specific bent toward self. There is self-preservation, self-aggrandizement, selfishness, self-righteous, self-absorbed, self-centered, etc. - all describing a flaw that inhabits all of us.

This flaw has led to some astounding actions to cover up potentially powerful cures.

Shoddy Science Paid for By You

In his surprising book published in 2017, Richard Harris exposed the shoddy science that we, as taxpayers, pay for. He is a long-time, well-regarded science reporter for National Public Radio. His book is **Rigor Mortis** and has the subtitle – "How

Sloppy Science Creates Worthless Cures, Crushes Hope, and Wastes Billions."

His documentation started with C. Glenn Begley's research at AMGEN: Begley commenting on their positive, groundbreaking drug studies over the years that only 11% of 53 could be replicated. Harris estimates that about half of the U.S. government's $30 billion annual investment in biomedical research yields results that are seriously flawed and cannot be trusted.

So, when you hear on the news, "A new medical study says…" According to Harris, you can pretty well count on it being flawed. At a recent medical conference, one of the renowned speakers stated that in his estimation, over 50% of the medical studies produced today would be overturned or shown "false" within five years. Actually, that was a very generous estimate.

Trying to make one's self look good is not new. In the biblical garden of Eden, Satan said to Eve, "…Did God say…" and as the lie was believed, the coverup has been going on for millennia. Adam's response when questioned was – "It was the woman that you gave to me…" Eve's response: "The snake deceived me…" Passing the buck and blame is a wrong human tendency. In the world of science, that is not supposed to happen. In the world of medicine, there is a huge machine producing billions of dollars and creating tens of thousands of jobs. Challenging the medical system with innovative, illness reducing cures can bring wrath instead of praise.

High Vitamin C and Sepsis Debacle

March 2017 - Dr. Paul Marik, a critical-care physician at Eastern Virginia Medical School (EVMS) – discovered that high dose vitamin C along with hydrocortisone and Thia-

mine (HAT) that was given to sepsis patients, within a few hours of diagnosis cut the hospital mortality rate. Over the years, hundreds of trials kept failing to show the benefit of conventional drug treatments for sepsis. This simple, cheap, and effective treatment – high-dose vitamin C, worked. The previous mortality rate was 19 of 47 (40%). In the EVMS ICU ward, when using the High vitamin C treatment for over a year, the mortality rate was cut to 4 of 47 (8.5%).

Result: He was rebuked, wrongly questioned, squashed, and "disproven."

A study was run to "prove or disprove" his work. In the study, the therapy was not given until it was too late. Marik's protocol within the hospital called for "as soon as diagnosed with sepsis;" the therapy needed to be started within 6 hours, but in the study, they delayed the therapy on average 14.9 hours. After the announcement by the NIH that his therapy failed, Dr. Marik was livid and stated: "I contend that doing a study that is designed to fail is ethically and morally unacceptable." Their delay was like trying to revive the dead. That did not stop the headlines - "Vitamin C Not a Magical Cure for Severe Sepsis and Septic Shock" and "Study quashes controversial vitamin C treatment for sepsis with global trial." The establishment seems to not want this cure.

Crushing Cancer Curing Raymond Rife in the 1940s

1937 Raymond Rife – He was a genius in his time. He developed a two-foot-high microscope weighing in at 200 pounds, which included some 5,682 parts that changed magnification from 1,700 times to 31,000 times. He was the first to see viruses. He also worked on cancer cures that used micro-frequency. It was so effective that he was hailed by the medical community as he reversed 16 out of 16 cancer patients that

were given up on by conventional medicine of the time. This was short-lived, though, as he was at odds with the AMA and pharmaceuticals. Morris Fishbein, the head of the AMA, was corrupt and wanted to "buy-out" Rife's inventions; Rife refused. Fishbein attacked his character and work. Physicians then shunned Rife, and a lawsuit ensued. His microscopes were vandalized, and his records stolen, his research validation center had a mysterious fire that destroyed his work. Rife crumbled and turned to alcoholism. The AMA offered financial gifts and honors and support to previous Rife supporters to "shut their mouths" and go back to prescribing pharmaceuticals. [1]

UBI Demise

1952 Emmet Knott – Emmet Knott's device and therapy had been gaining favor across the country. Scores of studies had been published on thousands of patients that showed this was a most effective therapy for infections and some autoimmune disorders.

"If UBI is so great, why isn't it in general use today?" The answer is that organized medicine drove it underground in

the late 1940s and early 1950s. AMA head Morris Fishbein had been responsible for driving out of business a number of effective therapies, including Emmett Knott (UBI), Harry Hoxsey (anti-cancer herbs), and, as mentioned, Royal 'Raymond' Rife (Frequency Specific Micro-current).

"Dr. Morris Fishbein is the infamous man who ran the AMA, the *American Medical Association*, for over 25 years from 1924 to 1950, and who was also the chief editor of JAMA, the *Journal of the American Medical Association*. His rise to power began by labeling natural healers, Native Americans, and American midwives of the time as all being "quacks," thus beginning and ultimately empowering the chemical medicine industry that was to become the allopathic America we know today." [2]

We can easily look to the past to see documented biases and shake our heads as to the injustice and greed. The story of Emmet Knott merges with that of the AMA and Morris Fishbein and his successor.

In the early 1900s, the AMA was a fledgling organization that had little power or prestige. Few of us can remember the competing internet search engines of the 1990s like Altavista or Ask Jeeves, as now Google holds the power position and the competitors are forgotten. Innovation, hard work, and a product that pleased was needed. The AMA remade itself by finding a not-so-reputable science supporter called advertising.

George Simmons took the reins when the organization was weak and had little respect. His great idea was to give the AMA's "seal of approval" to certain drug companies if they would place frequent, large ads in JAMA. The company would not need to do any research or prove safety or efficacy. The rules were:

- Give us the constituents of your drugs – no secret formulas from us at the AMA

- Advertise with us and in our local, regional, and national publications

In 1899 AMA revenue was $34,000
In 1903 revenue was $89,000 - membership 8,000
By 1909 revenue was $150,000 – membership 70,000
In 2018, revenue was $361.3 million, with membership at 250,000. Most of the income is from publications, which include advertising.

Early on, Abbot Labs was "blackmailed" to give money to the AMA, and they refused. Abbot went on the offensive and conducted an investigation of Simmons, showing that he had no credible medical credentials and had sex charges brought by some of his patients. After this, Abbot was regularly approved and not required to place or pay for ads.

In 1904, Simmons established the Council on Medical Education. The stated intent was to upgrade medical education. The goal actually became to eliminate homeopathic colleges, and by 1910, it was hard to be an "acceptable institution" if you did not teach what they considered conventional medicine. In 1913, Morris Fishbein was hired as the publicity man for the AMA.

By 1924, Simmons was forced out as the head of the AMA due to the many scandals surrounding him. When he was fired, he immediately took all of his personal files home and burned them. His replacement was Dr. Fishbein, a medical doctor who "never practiced medicine." He was a critic of unconventional treatments. He wrote and often spoke about "medical quackery." He called chiropractors a "malignant tumor," and he considered osteopathy and homeopathy as "cults."

For sure, there were some medical practices and potions and devices that were false cures, but he lumped everything together that he thought was bogus or non-profitable. Pharmaceu-

ticals were taught in approved AMA schools. AMA doctors and pharma were his main beneficiaries.

He made the cover of *Time Magazine* in 1937, but one year later was indicted, along with the AMA, for violating the Sherman Anti-Trust Act and restraint of trade.

There are numerous stories about Fishbein's efforts to purchase the rights to various healing treatments. If they would not sell, he labeled them as quackery. If the violator was a physician, he went on the AMA's quackery list.

In the middle 1940s, when UBI was gaining ground in a number of hospitals with an increased number of substantial studies to support it, Fishbein approached Emmet Knott offering a deal. For $100,000 (about 1 million dollars in today's economy), he would put together a study that would support UBI. He also made an offer to buy the rights to the UBI Knott device. Knott refused. If the terms were like previous offers to other non-conformists, Knott would get 10% of the profits after seven years. – not very appealing.

The Study Meant to Fail

Knott and crew had already conducted and published 50 medical studies from 1933 – 1948. Fishbein offered to conduct a study for Knott in the late 1940s. The study turned out positive, according to his son, Emmitt Knott II, but was never published. At the same time, a friend of Fishbein's was developing and patenting a competing UBI device. Another study on Knott's machine was conducted by the AMA, and it was overseen by the co-worker of the competing patent holder. Sidney Levinson and Dr. Steven Schwartz both worked for the Michael Reese Foundation.

From the September 1952 Sales Brevits (Knott's machine company update), the main article was "The Story Behind

the Story," telling of the deceit and bias of the AMA. They stated that the study was designed to discredit UBI.

Even before the study was started, the 1947 AMA journal had an article by Levinson and Schwartz stating that a study was going to be conducted. They stated: "Despite the fact that these claims (UBIs healing effect) were effectively disproven years ago" and also "…the department should conduct a definite study at this time, even though it is fully expected that the therapeutic claims will not be substantiated."

WHAT??? Before their "unbiased" study, they claim that it is already proven ineffective and that they fully expect failure. The American Blood Irradiation Society (ABIS) and its members had already published 50 medical studies with all of the necessary data on scores of diseases. This was totally disregarded.

The AMA report was by Dr. Steven Schwartz et al. (1952). "Ultraviolet Irradiation of Blood in Man, JAMA 149:1180-3. It came out in July of 1952.

It was obvious to the proponents of UBI that this was a railroad job. In private letters that I have, it was indicated that they were in for trouble prior to the printing of the report. They noted that they were "shaken-down" and ABIS agreed that it was too much to pay.

The report was faulty in a number of ways:

1) Knott sent a machine to their Chicago office, but neither he nor anyone familiar with the treatment was allowed to inspect it nor even train in its usage. Later it was returned with a film over the cuvette, which would cut the therapy's efficacy.
2) Even against what EK Knott and others had said and written – that his device was not a blood sterilizer, the

first part of the study tested the machine and said that it was not a good blood sterilizer. They used 3.5 liters of plasma as their test. The machine was not made to sterilize plasma, and they only ran 250cc of whole blood through it at a time.

3) 51 cases were examined – (5 of the pathologies were never recommended for UBI)
   Their patient results:
   a. Increasing the dose had no harmful effects
   b. 23 Infectious hepatitis cases – no real comment made on cured or not. (Knott commented that almost half of the study were drug addicts and they had little control of their habits)
   c. 8 Stasis ulcers – positive results
   d. 7 arthritis – improvement
   e. 2 Acute rheumatic fever – improvement
   f. 2 Pneumonitis – did not stay long enough to evaluate
   g. 2 Thrombophlebitis – the only one commented on as no improvement
   h. Single cases of anemia, herpes, brucellosis, leukemia – no comments
4) Another 17 patients were UBI treated in a second evaluation – 2 rheumatoid arthritis, one thrombophlebitis, two rheumatic fever, and 12 with pelvic inflammatory disease.

Knott comments that the vague "pelvic inflammatory" patients had no specific testing or diagnosis. Also, some were noted to be on penicillin and sulfa drugs. This certainly is not a good control group to test.

The foregone conclusion from the 1952 JAMA report… "We have concluded that none of our patients derived benefit

from the irradiation of blood with the Knott hemo-irradiator." IT WAS A LIE!

No patients had died, many claimed improvements, many patients got only 1 or 2 treatments, patient samples were with 1 or 2 – too small to do a study. This study showed a lot more about the shoddy testing and attempts of the AMA to discredit this therapy after Emmet Knott refused to pay off Morris Fishbein.[3]

In 1949, UBI had already shown success with **Rheumatic Fever** – see Time Magazine's article in June 1949. Success in 22 consecutive cases of children aged 3-13.

Pelvic inflammatory disease – with 631 patients and 80% cured of all symptoms – Olney, R.C. (1947). "Ultraviolet Blood Irradiation Treatment of Pelvic Cellulitis, Knot Method," American Journal of Surgery 84:4:440-3

Thrombophlebitis – 13 patients with remarkable sustained recoveries and good documentation. Miley, George, The control of acute thrombophlebitis with UBI therapy, American Journal of Surgery vol 60 pg 354-360 1943.

Tobacco and Scientific Testing Help from the AMA

Morris Fishbein was instrumental in helping the tobacco companies conduct acceptable scientific testing and advertise heavily in JAMA. Here are a few of the slogans that Fishbein approved. "Not a cough in a carload" (for Old Gold cigarettes), "Not one single case of throat irritation due to smoking Camels," "More doctors smoke Camels than any other cigarette," "Just what the doctor ordered" (L&M cigarettes), and "For digestion's sake, smoke Camels" (because the magical Camel cigarettes would "stimulate the flow of digestive fluids").

By 1950, the AMA's advertising revenue exceeded $9 million, thanks in great part to the tobacco companies.

Harry Hoxsey Broke the AMA Corruption

In 1953, the Congressional Investigation Committee determined that the Hoxsey treatment and **twelve other alternative treatments** were actively conspired against by the AMA and organized medicine. It castigated the AMA for its dishonesty and conspiracy against non-orthodox treatments. Specific rebukes included in the Fitzgerald report had this to say:

> *"There is reason to believe that the AMA has been hasty, capricious, arbitrary, and outright dishonest."*
>
> *"Behind and overall, this is the weirdest conglomeration of corrupt motives, intrigue, selfishness, jealousy, obstruction, and conspiracy that I have ever seen."*
>
> *"My investigation to date should convince this Committee that a conspiracy does exist to stop the free flow and use of drugs in interstate commerce which allegedly has solid therapeutic value. Public and private funds have been thrown around like confetti at a country fair to close up and destroy clinics, hospitals, and scientific research laboratories which do not conform to the viewpoint of medical associations."*

Fishbein was forced out because of his persecution and legal battle with Harry Hoxsey, and his cancer therapy that even Fishbein had to admit was effective. Later studies would show that Hoxsey's plant mixtures had anti-cancer properties. After this. Fishbein went to work as a consultant to one of the tobacco companies.

The Fitzgerald report was never acted upon, but it did mean the end of Morris Fishbein with the AMA. Still, the phar-

maceutical companies continued to dominate the marketplace and held sway in the minds of physicians and patients alike. In a Washington Post article of 2017, 46% of older Americans take five or more prescription drugs on a daily basis. [4]

> *"The glide path to overuse can be gradual: A patient taking a drug to lower blood pressure develops swollen ankles, so a doctor prescribes a diuretic. The diuretic causes a potassium deficiency, resulting in a medicine to treat low potassium. But that triggers nausea, which is treated with another drug, which causes confusion, which in turn is treated with more medication."*[5]

The phony 1952 AMA study on UBI stated that it was ineffective. It was enough for most hospitals and clinics to never again look at UV light as a viable alternative against infections and auto-immune disorders. Emmet Knott stopped producing his machine and died in 1961.

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5. https://www.washingtonpost.com/national/health-science/the-other-big-drug-problem-older-people-taking-too-many-pills/2017/12/08/3cea5ca2-c30a-11e7-afe9-4f60b5a6c4a0_story.html

What Kind of Man was the Creator of UBI?

From the Sales Newsletter put out by Scientific Equipment Manufacturing Company - April 1952

E.K. (Ken) Knott D.S – creator of the Knott technique of Ultraviolet Blood Irradiation

"He was born in Cripple Creek, Colorado, on Jan 31, 1897. He is 6'3" tall and proud of his sylph-like 205 pounds.

Prefers Bourbon to Scotch, stud poker to Bridge, cigarettes to cigars and has an uncanny memory for numbers. He eyes with distrust all air-borne vehicles, pint-sized English automobiles, violent exercise, and mining stock salesmen. He particularly enjoys fishing and hunting (he's a crack shot and has a fine gun collection), flowers, and lengthy discussions on ultraviolet blood irradiation.

He was a manager for x-ray equipment firms on the West Coast and of Electro-Therapy Products in Seattle prior to devoting his entire time to the development of UBI in 1934. What does not appear in print is the courage and fighting spirit it took to push ahead in those early years. Blood irradiation was as far ahead of its time in 1928 as jet propulsion would have been at Kittyhawk.

Ken looks and acts like anything but a doctor of anything. He resembles a Class of '22 All-American fullback. In fact, this summer, while visiting a small logging town in northern Washington, he was mistaken by some for a member of the wrestling troupe playing the town that evening. Nor is he the "absent-minded professor" type. He's gregarious to a fault and is possessed of a sturdy and constant sense of humor. He maintains a lively, sincere interest in everyone about him, from the elevator boy to the vice-president of the bank. He is a Shriner,

an Elk, and a member of a number of local, good government groups, civic and social clubs. He's the kind of guy you'll like instantly – and like even better as time goes on."

His grandson affirmed this to me as I was preparing for this book that he was a "bigger than life" kind of guy.

– CHAPTER FIVE –

What Does UBI Do in the Body and How Does it Work?

For years there were a lot of medical mysteries. One of those was hand washing that was first promoted in 1847 by Dr. Ignaz Semmelweis in Austria. The mystery of his time was, "Why are young, healthy mothers dying after giving childbirth in the hospital?" Semmelweis did the detective work and found the problem. Physicians/students would do an autopsy and then go to deliver a child without washing hands. He instituted handwashing, and the mortality rate decreased by 90%. Death rates went from 18.3% down to 1.2%. What did he get for his innovative thinking and detective work? He was denied numerous medical posts, ridiculed, and rejected. Years later, he was coerced into an insane asylum. He was beaten by guards and died at the age of 47 from gangrene. The germ therapy had not yet been accepted in 1850.

Sometimes scientists cannot wrap their heads around a novel concept. This is called a Semmelweis reflex – a metaphor for a certain type of human behavior characterized by a reflex-like rejection of new knowledge because it contradicts entrenched norms, beliefs, or paradigms.

"Suppose we brought UV light inside of the body…in some other way," Donald Trump said on April 23, 2020, during a Coronavirus Pandemic briefing.

Perhaps if this was said by some expert in the opposing party, there might have been a pause to see if this were feasible or even made sense.

Would putting UV light into the body mitigate some of the negative effects of the Coronavirus?

Yes, it would.

Often the media wants a succinct, catchy headline, and one is provided here. This 1940 article during the AMA meeting in New York was a full newsprint page of information on UBI.

Sun Baths INSIDE Your Body

By Draining Off a Small Part of Your Blood, Bombarding It With Ultra-Violet Rays and Then Pumping It Back Into Your Body, Science Finds a New Way to Overpower Deadly Poisonous Germs

This Exclusive American Weekly Picture Shows How the "Eternal Sunshine" Is Administered. The Patient Receives the Blood Which Has Been Irradiated With Ultra-Violet Rays in the Apparatus Shown in the Foreground. Mr. E. K. Sicott, in Background, Inventor of the New Method and Attending Physician Supervise.

Fever Chart of a Blood-Poisoning Patient. When the Irradiated Blood Was Put Back Into the Body the Temperature Fell Sharply, the Number of Red Cells Increased.

Emmett Knott, the inventor, is featured in this picture. His exhibit and machine were a highlight of the convention. Even though the headline might be a bit misleading, the therapy worked…and still does. (poster available at www.invisiblecure.com)

"What Does UBI Do?" is easier to answer than "How Does UBI work?"

Dr. Michael Hamblin has offered a number of ideas on UBI. As Harvard Medical School's leading expert on light and medicine, Dr. Michael Hamblin encourages the investigative use of UV Blood Therapy. These are excerpts from his 2016 review paper: **Ultraviolet Blood Irradiation: Is it time to remember "the Cure that Time Forgot"?**[B] is a scholarly 13-page read.

> *"We believe that the mechanism of action involves the UV light interacting with components of the blood (proteins and cells). It is likely that many different blood components are affected – monocytes, lymphocytes, erythrocytes, dendritic cells, neutrophils, and even proteins such as lipoproteins and immunoglobulins may be affected. The net result is that there is a significant* ***decrease in inflammation*** *(important for patients with sepsis and inflammatory conditions) and the* ***natural antimicrobial activity*** *of the host cells is markedly increased. Another common observation is that the* ***oxygen carrying capacity*** *of the blood is increased, which is beneficial for many respiratory diseases."*[1]

It should be noted that UBI **does not** have only a single mechanism of action. Its action is complex. It is hard to determine a primary mechanism from a secondary one as it is a combination of factors that seem to bring the body's immune system in line.

What does it do? Immune system modulation

UBI is bio-stimulative, analgesic, antiallergic, immune-corrective, desensitizing, antitoxin, vasodilating, anti-arrhythmic, antibacterial, antiviral, anti-hypoxic, spasmolytic, anti-inflammatory, hematopoietic, and normalizing. The farther out of line disorders cause the body to become, the more effective is the use of UBI.

Current scientists may have this Semmelweis reflex – "How can you say that?" "It has to have one action, not 10." "If it does all of that, it is too good to be true. We know from the drug companies that it is one pill for one ill. If UBI were that good, we would have been using it all along. Is it in one hospital in America? See…it is bogus, and you are a charlatan!"

Thousands of hospitalizations were treated with UBI in the 1930s – 1950s. This has allowed all of the record-keeping to be preserved for us to observe. See Dr. Rowen's Cure That Time Forgot[2] for details of these records. The results were stunning, phenomenal, and innovative.

Reports from the pioneers and also of today's physicians – what they observed:

1. Oxygen uptake improvement. It depended if you are low for the saturation rate of oxygen. Normal rates are 95% or above. For a patient with pneumonia or other respiratory disorders, their inability to transfer oxygen in the lungs is hampered

Cholesterol Lowered

"Although I was altering my diet, I also decided to try BPT treatments. After 3 treatments and two months' time I went from a cholesterol level of 233 down to 179. My triglycerides went from 415 to 111 with no medications."

Dave

by mucus – fluid buildup. With UBI, oxygen uptake would improve by 50%. Cyanosis (blue skin) is usually caused by low oxygen levels in the red blood cells or problems getting oxygenated blood to your body. It was often observed that within 15 minutes of a UBI treatment, patients would "pink up" and breathe easier.

2. Fevers would drop within the first 24 hours to about 99 to 100 degrees. This was a great indication that toxins were being removed from the body.
3. Pulse rate and respiratory rates would approach normal.
4. Inflammation reduction occurred.
5. Vasodilation occurs, and microcirculation improves. Even in the brain, there were changes causing awareness. Petit mal seizures and schizophrenia were successfully treated by Russians in the 1990s.
6. Regulating the autonomic nervous system. It was mentioned that paralytic ileus (obstruction of the bowels due to smooth muscle paralysis) and bronchial asthma are normalized.
7. Bacterial and viral infections were subdued.
8. Red Blood cell aggregation is reduced.
9. The immune system modulated. If high, it would quiet down; if low, it would activate against the disorder.
10. Cardiovascular improvement.
11. Pain was reduced as increased oxygen was able to circulate and be utilized.
12. UBI was used as a preoperative therapy to prepare the body and reduce infections.
13. Stimulation of the production of red blood cells.
14. Improvement in the flow properties of the blood. (Rheological improvements)

15. Increased phagocytic activity.
16. Decrease in blood volume, diastolic and systolic blood pressure, and hematocrit also occur (Dillon).
17. Increased IgM activation by 2-16 times and IgG by 2-4 times – activating the nonspecific immune defense system.
18. Improves the balance between HDL and LDL cholesterol.
19. Autoimmune issues were drastically reduced.

Blood Rheology

Deals with the flow, coagulation, viscosity, elasticity, and oxygen uptake of whole blood.

Amazingly, UBI can be both immunosuppressive and immunostimulatory in the same treatment, depending on the needs of the body. There may be a flare-up of rheumatoid arthritis or bronchial asthma on the initial treatment. This is actually a good sign in that it is reacting. Subsequent doses should be highly effective in suppressing the cells that caused the flare-up.

A Review of UBI was completed in 2016 by a Harvard research group to present a paper precisely on what had been scoffed at by the media and physicians of the present day. The idea of UV light put into the blood is out of most physician's comfort zone.

The paper from Dr. Hamblin's group (referenced above) states that the actions below are all documented in his list of 95 references at the end of his paper.

How does it do it? Mechanism of Action

It is interesting to note that the mechanisms of action of anesthesia are still somewhat of a mystery. "…the simple answer to the question 'How does anesthesia work?' Although we know

a great deal about the physiologic effects and macroscopic sites of action, we don't yet know the molecular mechanism(s) of action for general anesthetics."[3] This does not stop hundreds of thousands of operations done daily.

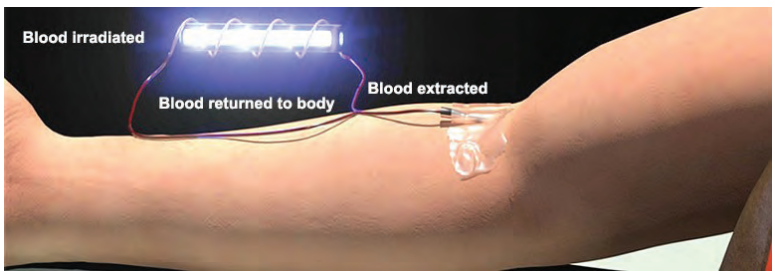
> Dr. Hamblin, in a letter on UBI, sums it up like this: *"One of the major obstacles that UBI has consistently faced throughout the almost 90 years since the first patient was treated has been the lack of understanding of the mechanisms of action. Over the years, its acceptance by the broad medical community has been hindered by this uncertainty. Confusion has been caused by the widely held idea that since UV is used for sterilization of water and surgical instruments; therefore, its use against infection must also rely on UV-mediated direct destruction of pathogens.*

Another highly confusing aspect is the wide assortment of diseases that have been claimed to be successfully treated by UBI. It is often thought that something that appears to be "too good to be true" usually is." [4]

The picture below gives the idea but is not an actual therapy situation.

UV light hits the blood, and it is absorbed by the hemoglobin and other blood products.

Central to understanding the action is the fact that all living cells emit photons. The bloodstream is especially given to chemiluminescence.



Professors Vadim Backman, Hao Zhang, and Cheng Sun from Northwestern University have discovered that macromolecule structures in living cells do, in fact, naturally fluoresce.[5] Not only do they "glow," but "a growing body of evidence suggests that the molecular machinery of life emits and absorbs photons. Now, one biologist has evidence that this light is a new form of cellular communication."[6]

How do Anesthetics work?

General anethesia is something that has been tested and developed for decades. However, you may find it disturbing that we don't really know how it works. General anesthetics put you to sleep by reducing communication between your brain cells, but that's pretty much all we know.[A]

This was not new because as far back as 1922, a Russian Scientist Alexander Gurvich stated that "all living cells regularly emit biophotons."[7]

There is a cellular communication that occurs with photons. This aspect of medicine has not been extensively explored. Cell communication allows millions of cells to communicate and work together to perform important bodily processes that are necessary for survival. Both multicellular and unicellular organisms heavily rely on cell-cell communication.

UBI Photon Emissions: The primary action is that the light hits the blood and causes membrane modifications. Secondary emissions are from excited photons traveling around the body and being released.

Consideration of the Laws of Light

As presented by Dr. Miley in 1942, he states these laws of light come into play:

- **Grotthus-Draper law**, also known as the first law of photochemistry, stating that only light that is absorbed can act chemically.
- **Bunsen-Roscoe law** states that a photochemical change is proportional to the intensity and time of illumination.
- **Stokes law** stating that the wavelengths of secondary, emitted rays are greater than the primary exciting rays.
- **Einstein's photochemical equivalence law** states that each absorbed quantum should cause one light-absorbing molecule to react chemically, and the production of chain reactions by secondary emanations are all as applicable to biochemical reactions as to chemical reactions in general.

There is a high absorption level of light in the UV range…also in the lower visible light range. The hemoglobin readily picks up the light and transfers its energy. I am indebted to Ken Dillion and his book "Intriguing Anomalies" (see the Appendix) for the following possible ideas on the action of UBI – some are direct quotes.

1. Energy Gradient – the body has the ability to shuttle energy around to places it is needed. If there is an infection in one area, it demands an unusually high amount of energy. The body fuels the diseased area. It lends itself to a kind of Energy Gradient in the blood. This would explain the exceptional specificity of UBI in fulminating (escalating and intense disease) conditions. The light energy is concentrated and destroys the activated immune cells.
2. In items like liver diseases, blood filtering action tends to concentrate energy and bring effective healing.

3. As in fluid (blood), UBI can get to hard to reach places where other kinds of energy cannot reach without damaging tissue. In this sense, UBI can be seen as a kind of glucose antagonist/substitute/overrider and thus a suppressor of any excessive metabolic activity. [7]

UBI Great for Auto-immune issues

Quoting again from Ken Dillon:

> *"Knott noted the complex effect of UBI. On the one hand, UBI stimulates the activity of white blood cells; on the other, excessive amounts destroy various white blood cells. The first effect is the basis of the immune response explanation of the beneficial results of UBI. The second suggests a reason why UBI can be so effective against autoimmune diseases. In these disorders, the metabolically active T-cells and other immune cells absorb much greater amounts of radiation than ordinary body cells, and this radiation inhibits or destroys them, thus slowing down the disease."*[8]

Looking at the list of biologically positive effects and looking at the biological processes that have been laid out is how we should conduct science. We look at clinical studies and see the results. It is especially important to look at those treatments that used UBI alone.

Just because these clinical studies are 80-years-old does nothing to diminish their validity. Reducing the fever of a man dying in a hospital is measurable. We do not need a double-blind, randomized, placebo-controlled study to admit to the facts. They are not just the facts of the past but of the present.

To sum up, as stated above, "… the mechanism of action involves:

- **a significant decrease in inflammation**
- **natural antimicrobial activity**

- **the oxygen-carrying capacity of the blood is increased"**

We do know that UBI has been used for hundreds of thousands of therapies.

Summary:

UV light does not kill bacteria and virus in the body via direct contact with the light

UV light does not dismantle or attenuate a virus, and its reintroduction into the body does not cause a vaccine response

UV light does get absorbed and allow for "packets of energy" to move around the body

UV light energy travels around the body to places that it is needed. Disease sucks up an inordinate amount of energy. T-cells that are over-reacting (autoimmune) suck up photons and are reduced in number.

UBI has demonstrated efficacy and safety. It is time to remember "The cure that time forgot."

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1. Wu X, Hu X, Hamblin MR. "Ultraviolet Blood Irradiation: Is It Time to Remember 'The Cure That Time Forgot'?" J Photochem / Photobiol B. 2016 Apr;157:89-96.

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4. See note on 1

5. August 15 issue of the Proceedings of the National Academy of Sciences. Or https://phys.org/news/2016-08-dna-naturally-fluoresces.html

6. *Reece, Jane B. (September 27, 2010). Campbell Biology (9 ed.). Benjamin Cummings. p.* 205. ISBN 978-0-321-55823-7.

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7. Kenneth J Dillon. *Intriguing Anomalies: An Introduction to Scientific Detective Work.* Washington, D.C: Scientia Press, 2008

8. ibid

Links

A. https://www.technology.org/2018/01/11/how-does-general-anaesthesia-work-no-one-knows-but-now-we-are-close-to-the-truth/

B. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6122858/

– CHAPTER SIX –

Hospital Observations in 151 Unselected, Serial Cases of Acute Infections

Most treatments were with UBI, and few or no drugs were used.[1]

These cases have been classified into three groups, according to the degree of clinical toxicity as follows:

1. Early, in which temperature, pulse, and respiratory rates are not greater than 101° to 102°, 100-110, and 24 to 25, respectively, and toxic symptoms such as nausea, vomiting, restlessness, irritability, and mental confusion are minimal or absent.
2. Moderately advanced, in which temperature, pulse, and respiratory rates exceed 101° to 102°, 100-110, and 24 to 25, respectively, and such toxic symptoms as nausea, vomiting, restlessness, irritability, and mental confusion are excessive.
3. Apparently moribund, in which the symptoms present are a combination of those advanced symptoms commonly considered near terminal, or terminal, namely:

coma, rapidly falling blood pressure, cardiac irregularity, irregular and shallow respirations, plus obvious fever as often associated with septicemia.

RESULTS IN 151 CASES OF ACUTE PYOGENIC INFECTION GIVEN ULTRAVIOLET BLOOD IRRADIATION THERAPY AT THE HAHNEMANN HOSPITAL IN PHILADELPHIA FROM NOVEMBER I, 1938 TO December 31, 1941

	No. of cases	Recovered	Died
Early:			
Puerperal sepsis	2	2	
Incomplete septic abortion	2	2	
Acute ulcerative gingivitis secondary to 3rd molar abscess	2	2	
Acute furunculosis or carbunculosis.	13	13	
Acute Streptococcus hemolyticus oropharyngitis	5	5	
Acute pansinusitis	1	1	
Acute tracheobronchitis	4	4	
Acute pyelitis	1	1	
Wound infections., ...	2	2	
Acute otitis media (1 diabetes mellitus	2	2	
Fever of undetermined origin.	1	1	
Moderately Advanced:			
Puerperal sepsis	14	14	
Incomplete septic abortion	14	14	
Pelvic abscesses; pelvic peritontis.	7	7	
Peritonitis, generalized	9	9	
Wound infections., ...	4	4	
Acute femoral thrombophlebitis.	4	4	
Acute Streptococcus hemolyticus oropharyngitis	1	1	
Fever of undetermined origin	2	2	
Bronchopneumonia	1	1	
Acute osteomyelitis. advanced nephrosis	1		1
Acute cholecystitis, cholelithiasis.	1	1	
Double otitis media	1	1	
Streptococcus viridans septicemia 2nd to parotitis	1	1	
Acute suppurative hemorrhagic cystitis.	1	1	

Cure Rate

100% if caught early, 98% if in advanced stage, 42% if already moribund

These findings correspond to other physicians. No long-term negative effects were observed after testing three years later.

Apparently Moribund:			
Puerperal sepsis., ...	2	2	
Incomplete septic abortion..	1	1	
Incomplete septic abortion, hemorrhagic shock	2		2
Peritonitis, generalized..	3	2	1
Appendiceal abscess	1	1	
Pelvic abscesses, pelvic peritonitis.	6	5	1
wound infections	3	2	1
Fever of undetermined origin..	2	1	1
Lobar pneumonia.. _.	2	1	1
Bronchopneumonia	1	1	
Pyelonephritis, cystitis, 2nd to bladder carcinoma	1		1
Mesenteric thrombosis; large abscesses, diabetic	1		1
Acute extensive phlegmonous ileitis, cecostomy	1		1
Rectal abscesses, cystitis, ileitis, arteriosclerosis	1		1
Bacillus coli abscess of scrotum..	1	1	
Streptococcus hemolyticus oropharyngitis	1	1	
Extensive trauma. terminal bronchopneumonia..	1		1
Acute hepatitis and colitis of unknown origin	1	1	
Pelvic abscess secondary to carcinoma of sigmoid	2		2
Extensive bilateral pyonephrosis s2nd to tuberculosis	1		1
Septicemias:			
Staphylococcus aureus..			
Staphylococcus albus 2nd to Staph albus pneumonia	6		6
Streptococcus hemolyticus..	1		1
Staphylococcus aureus and albus septicemia.	3	3	
Streptococcus nonhemolyticus. _. .	1		1
Streptococcus viridans subacute bacterial endocarditis	2	1	1
Streptococcus nonhemolyticus endocarditis	6		6
Streptococcus hemolyticus bacterial endocarditis	1		1
	1		1
Summary			
Number of cases	35	61	55
Number recovered	35	60	23
Percentage recovered	100%	98%	42%
Number died., ...	0	1	32
Percentage died	0%	2%	58%

References

1. Miley, G.P. (1942). "The Knott Technique of Ultraviolet Blood Irradiation in Acute Pyogenic Infections," N.Y. State Journal of Medicine 42:1:38-46

– CHAPTER SEVEN –

The Cure That Time Forgot

Overview of UBI by two leading scientists

Martin was riding the bus to work, and that nagging cough had been with him for over two weeks. He thought, "Cold season, flu season - it happens. What was I to expect?" The next day his coughing was more irritating. Then it happened. He started coughing up phlegm, and it was blood-spattered. Making his way to the emergency room, he found a chair and waited. The coughing continued. He had trouble breathing. He was tired, sore, and did not know that deadly pneumonia had settled in his lungs.

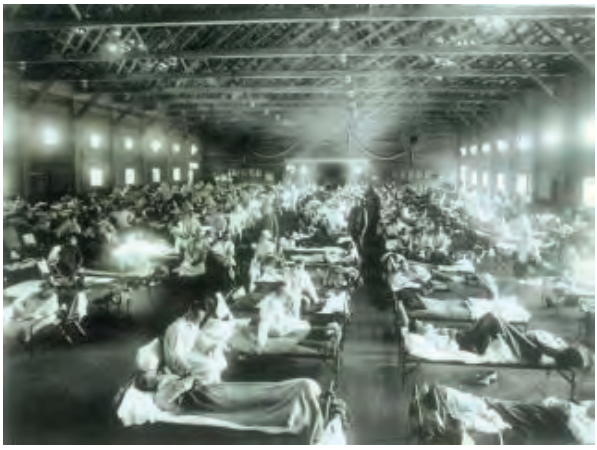
UBI is safe in treating dozens of infectious diseases. There is no micro-organism resistance, therefore, UBI can possess an advantage over antibiotics. It has been successfully used to treat viral infections. It is enormously versatile. It is safe. It is inexpensive.

Pneumonia might be thought of as a disease of the past, but aside from childbirth, it still is the leading cause of hospital

admissions. It can also be dangerous because the infection can enter the bloodstream and spread, causing sepsis. Sepsis, once called "blood poisoning" in the past, was almost always deadly. Today there are treatments for bacterial pneumonia, but almost nothing for viral pneumonia.

Famous people who died from pneumonia range from Rene Descartes 1650, Charles Bronson 2003, Mary Tyler Moore 2017 and you can also count in Muhammad Ali (the boxer) 2016 who died from the second complication - sepsis.

A Cure for Sepsis



Can you imagine the young physicist Emmet Knott, 24 years old, developing a cure for "blood poisoning?" Not only was it the start of the "roaring twenties" economically in the US, but disease had also been roaring. The world was just getting over the 1918 pandemic that killed as many as 50,000 million people. This was before antibiotics. If a child got sick and developed pneumonia, it often meant death.

UV light was possibly an answer in the mind of EK Knott.

Pneumonia is a disease of the lungs in which alveoli (air sacs of the lungs) and the smaller bronchial tubes become filled with fluid. High fever, fatigue, shortness of breath, and pain while

breathing are some of the symptoms. Patients can even become disoriented and confused. The cough can be immensely painful, feeling like something is scrapping your lungs. The rust-colored phlegm is another bad indication that your lungs (and you) are in trouble.

Almost two-thirds of these cases occur in the winter months, December thru February. Pneumonia is sometimes a complication of the flu. Another major issue is that pneumonia is more virulent with comorbidities (existing medical conditions). If your immune system is already compromised, pneumonia can be especially deadly. The combination of the body's lowered defenses, especially in the lives of the elderly, allows the microbes to flourish and the body's defense mechanism to be weak.

Every Hospital

There ought to be a UBI unit on every hospital floor. Countless lives and much suffering would be spared.

There are three types of pneumonia

1. Bacterial – (most cases) This can often be treated with antibiotics, although antibiotic-resistant strains have been showing up with more frequency.
2. Viral – (30%) usually less severe, but there are no good conventional treatments.
3. Fungal - which can have deadly results.

How does UV light work with pneumonia and blood poisoning? It is what started E.K. Knott on his journey in 1923 to experiment with dogs and UV light and blood. We talk about that in another chapter.

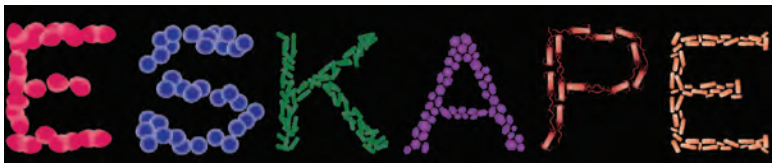
Does the UV light kill bacteria and viruses in the blood?

Early on, Knott knew that it was NOT the "killing" of the bacteria or virus in the blood that brought healing. This has been proposed over the years. In reality, blood is so optically dense that the light does not penetrate far enough into the cuvette. Penetration through whole blood is, in fact, about one-half the width of a human hair – 30 microns. Few bacteria or virus would ever get enough light to be destroyed.

Another theory that is still in the literature today is that enough of the bacteria or virus is killed/attenuated and reintroduced into the blood, and it causes an autologous blood vaccine. Two items have shot this theory down. First, as just mentioned, not enough bacteria or virus sees the light. Secondly, Dr. Hamblin – Head of Harvard's photobiology department, says that they have tried this many times, and it is a mechanism that is not occurring.

This brings us to the third explanation, that of light being picked up by the hemoglobin. This cell, in an excited form, appears to carry the energy around the body, causing an immune response. The emission of secondary radiation causes systemic and superior effects to that of the initial radiation. This is further explored in Appendix D

In spite of billions in research against viral infections and now antibiotic-resistant bacteria; an acronym has been termed for them: ESKAPE – as they have escaped from the power of modern drugs.



The ESKAPE pathogens are deadly, resistant, and inescapable by many. These bacteria, in many cases, have developed a multidrug resistance or sometimes called ABR antibiotic resistance.

The ESKAPE pathogens are *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Enterobacter* species.

- Each year in the US, about 3 million people are infected with antibiotic-resistant bacteria. About 35,000 people die as a result.
- In the US each year, antibiotic resistance adds $20 billion in excess of direct health care costs. Additional costs to society for lost productivity could be as high as $35 billion a year.[A]

These bacteria are the leading cause of hospital-acquired infections throughout the world. Most of them are multidrug-resistant and one of the greatest challenges in clinical practice. This is usually caused by excessive drug/prescription usage that is often inappropriate use of antimicrobials.

If there could be a greater understanding of the resistance mechanism, perhaps a drug cure could be found. Fortunate are those who have found a cure that already exists – UBI.

And what of viral infections?

Antibiotic overuse has led to the aforementioned resistance. But why not use an antibiotic to try and kill viral infections? Basically, it does not work.

- Viruses have different structures than bacteria. Viruses also replicate in a different way.
- To use an antibiotic that targets the growth mechanism in bacteria will not work on viruses.

In general, viruses are self-limiting. In time our own immune system will commonly fight off the illness. Commonly rest, drinking fluids, and treating symptoms with pain relievers is a good route. If we have an adequate immune system, we get well within days of the infections like a cold or flu. When there is a serious viral infection like SARS or COVID 19, and we are immunocompromised, then there is little that can be done by conventional drugs.

What if the power of light can do something within the system to "fight back" in a better fashion than even antibiotics? In their papers, Dr. Rowen and Dr. Hamblin explain what happens when UBI was used against both bacteria and virus at a time when no other drugs existed. Physicians using UBI knew just a little of the mechanism but knew enough to try this on a host of disorders, whether viral or bacterial. In thousands of cases, they found that UBI was safe and that it worked.

I am in debt to Dr. Robert Rowen and his 1986 publication; I have used his quotes by permission. He succinctly put together much of the original data on UBI.

What were the observations of those older heroes of health?

These heroes were the premier clinical researchers of the time, far from being lax scientists trying every new therapy that came around. In Knott's work with Hancock, "*…daily blood counts and cultures were taken on all patients treated. Careful study of these blood counts revealed that in cases of overwhelming infection, when leukopenia was present, there was, following ultraviolet blood irradiation, a rise in the white cell count to a degree consistent with the severity of the infection, the count then diminishing with clinical improvement. An increase was also noted in the red cell count in patients suffering from hemolytic streptococcus septicemia.*" [1]

Over the course of a few years and after much observation, their studies started to accumulate important data. The below observations were from studies on pneumonia and tuberculosis:

- Cyanosis diminished
- Ease of breathing resumed
- In 75 cases of diagnosis defined by X-ray saw that UBI was extremely effective – cleared lungs
- Temperature reduced
- Shorter hospital stays
- Leucocyte count will rise and then return to normal in 36 hrs.
- Sed rate remains elevated for a few days and then returns to normal
- Oxygen almost never needed after the first UBI

A number of early studies are documented in Dr. Robert Rowen's paper entitled "***The Cure that Time Forgot.***"[2/B] This 16-page paper published in 1996 lays out an almost unbelievable story of medical success.

His abstract says it all:

> *In the 1940s, a multitude of articles appeared in the American literature detailing a novel treatment for infection. This treatment had a cure rate of:*
>
> - 98 to 100% in early infections and moderately advanced infections,
> - app. 50% in terminally moribund patients.
>
> *Healing was not limited to just bacterial infections, but also viral (acute polio), wounds, asthma, and arthritis. Recent German literature has demonstrated profound improvements in*

a number of biochemical and hematologic markers. There has never been reported any toxicity, side effects or injury except for occasional Herxheimer type reactions. As infections are failing to improve with the use of chemical treatment, this safe and effective treatment should be revisited.

From Dr. Rowen's paper

"By the early 1940s, UV blood irradiation was being used in several American hospitals. Into the late 1940s, numerous reports were made about the high efficacy for infection and complete safety of UV blood irradiation. With the emergence of antibiotic therapy, the reports suddenly ceased."

So, what happened?

The AMA is what happened. In Chapter 4, we discuss how this and other therapies were squashed by the AMA. This somewhat corrupt system of the 1930 – the 1950s often favored revenue over science. A simple example was that of the advertising dollars of the tobacco industry.

"More Doctors Smoke Camels Than Any Other Cigarette" is a common example of how ads could be bought, even in the AMA journal. Science is not always science, and it can be used by those in power to support or debunk what is "out of favor" or against the current thought.

UBI fell out of favor, but the proponents continued for 30 years to pound out paper after paper extolling its almost "magical" cures. Here are a few excerpts from what hospital studies of the time had to say about UBI:

Infections

> *"In 1942, Dr. Miley reported on 103 consecutive cases of acute pyogenic infections at Hahnemann Hospital in Philadelphia. Such conditions included after childbirth sepsis, sinusitis, a bacterial infection of the renal pelvis, wound infections, peritonitis, and numerous other sites. Results of recovery were 100% for early infections, 46 out of 47 for moderately advanced, and 17 out of 36 of those who were moribund."*[3]

Typhoid Fever - A three-arm retrospective study on typhoid fever determined that UBI alone was more effective than UBI plus antibiotics and much more effective than antibiotics alone.[4]

Spectacular detailed reports of hopeless cases responding to UBI regularly appeared in the American medical literature.

These results were astounding in an era before antibiotics and vaccines. How was this therapy spread? It was a monumental feat to travel the US with a file-cabinet-sized machine and try to convince physicians that there was a cure for common infections that were claiming thousands of lives. Emmet Knott did this for over 20 years. In the 1940s, there were many who claimed great results, and there was a common awareness that there was a lot of "hoax" cures, therapies, and concoctions that were presented to physicians and the public alike.

Why was UBI any different? As select physicians took on the therapy, records were kept and compared to what was the

common occurrence. The results should have been overwhelmingly convincing. Hospital stay times were reduced, near-death patients were commonly brought back to health, infections after pregnancy were alleviated; even severe asthma was reduced. The list of published papers brought pressure on the American Medical Association to see this therapy brought into the hospitals.

Asthma

"In June 1943, Miley reported on asthma response in a series of 80 "intractable" patients. Twenty-four patients were not followed up, which left only 56 patients to document. Of these, 29 were moderately to greatly improved, 16 were slightly improved, and 11 had no improvement after a period of six to ten months. The 45 who had improved remained so for six to ten months, after an initial series of up to ten irradiations." [5]

Polio

"Miley reported on polio treated with blood irradiation. [6] Fifty-eight cases were followed, including seven with Bulbar polio (40% death rate expected). Only one death occurred."

The author was so impressed with the results that they included numerous case reports of hopeless and long-suffering infectious conditions resolved with UBI.

Preoperative Use

"Rebbeck reported on its prophylactic preoperative use in infectious conditions, concluding that the technique provided significant protection with a marked decrease in morbidity and mortality." [7]

Oxygenation (in ischemic (low-oxygen) conditions)

"The authors consistently reported beneficial peripheral vasodilation. A significant rise in combined venous oxygen was also repeatedly mentioned." [8]

Botulism

"Botulism, a uniformly fatal condition, was treated by Miley. [9] The patient was in a coma and could not swallow or see. Within 48 to 72 hours of one irradiation treatment, the patient was able to swallow, see, and was mentally clear. She was discharged in excellent condition in a total of 13 days."

This therapy deactivated toxins, destroyed bacterial growth, and increased oxygenation in the blood. These, along with other observations, were definitive cures in an era of difficult to treat and incurable infections.

Staph infections

100% recovery rate with one or two treatments. [10]

Sepsis and toxemia

"In 1943, Rebbeck [11] reported on eight cases of E.coli sepsis treated with UV phototherapy - six lived. Barrett reported in his cases of septic toxemia that pain associated with infection was typically relieved with ten to 15 minutes of hemo-irradiation. [12] Toxemia of pregnancy responded in all 100 patients with no serious complications, even after the onset of convulsions." Spectacular detailed reports were provided.

Thrombophlebitis

"Miley reported on 13 patients with thrombophlebitis, including some infections. Nine received only one treatment, while two had two treatments, and healing was noted within hours to two days. Most were discharged from the hospital on an average of 12 days." [13]

Dr. Rowen's paper has been read by thousands of hungry physicians and patients looking for a "cure" to the incurable.

What happened in the years from 1955?

Russia and Germany continued with great interest. In the US, UBI fell into the shadows and was rarely used by alternative physicians. Many of the UV light units that were used were smaller and not extremely effective. This was unfortunate as UBI was dropped by US physicians who did not see the efficacy.

In 2008, a small Michigan health clinic began that provided just a single therapy - UBI. It was the birth of better therapy and a better protocol. In the next 12 years, the therapy and protocol had spread from that one spot to over 400 locations. It was the rebirth of UBI in the US.

Is it Time to Remember the Cure that Time Forgot?

2016 Review of UBI

Dr. Hamblin, the world's foremost authority on light and medicine, looked at UBI. His study sparked his interest enough to do a current day review of the therapy. His words penetrate the minds of open-thinkers and have caused a stir in the pandemic of COVID-19. [14]

Dr. Michael Hamblin PhD – Harvard Medical School, Wellman Center for Photomedicine, Massachusetts General Hospital Editor-in-chief "Photobiomodulation, Photomedicine, Laser Surgery"

"… In general, it has great potential to quiet the cytokine storm in sepsis and effectively treat some of the ESKAPE pathogens. (It) is my opinion that this device should be welcomed as a potential candidate to treat the above disorders. It is safe; it has been very effective in the past."

AND… "It is app ropriate to repeat what I said at the end of the review paper."We would like to propose that UBI be reconsidered and investigated as a treatment for systemic infections caused by multidrug-resistant Gram-positive and Gram-negative bacteria in patients who are running out (or who have already run out) of options. Patients at risk of death from sepsis could also be considered as candidates for UBI."

His most recent comment regarding the **COVID-19 Pandemic** was: *"I certainly think that UBI could have a role to play in reducing the severity of a coronavirus infection. In common with the flu, it involves excessive systemic inflammation and cytokine storm that UBI could help mitigate. Moreover, the historical data suggests UBI can help with improving blood oxygenation in pneumonia."*

Quotes found on www.ultraluxuv.com and directly from the author.

Dr. Hamblin has researched how light affects human biology and studied light therapy for various diseases over the last 30 years. He and his colleagues have produced over 350 peer-reviewed research papers. Dr. Hamblin has personally edited or written the main textbooks used in the study of light and medicine.

In his writings, he states that the "medical" indications for UBI are many and various and include the following:

- Viral Infections: (Hepatitis, Influenza, Herpes, Mononucleosis, Viral Pneumonia, Shingles)
- Bacterial Infections: (Pneumonia, Wound Infections, Septicemia, Peritonitis, E. coli, Glanders, Lyme disease, Tetanus)
- Inflammatory Conditions (Arthritis, Fibrositis, Bursitis, Nephritis, Iritis, Uveitis, Cholecystitis, Pancreatitis)
- Circulatory Conditions: (Peripheral vascular disease, Deep Vein Thrombosis, Claudication, Thrombophlebitis)
- Autoimmune Disorders: (Lupus, Rheumatoid Arthritis, Psoriasis, Multiple Sclerosis)
- Respiratory Disorders: (COPD, Asthma, Emphysema, Sinusitis, Bronchitis)

The review paper is an astounding testimony and recommendation from a world expert on this subject. He and his colleagues have put together a fairly complete look at what happens to each of the components of blood when UV light is applied. A summary from his paper explains.[C]

2.0 Mechanisms of action

- Alters the function of leucocytes
- Increases stimulator cells
- Modulates helper cells

2.1 Effects on Red cells

- Affects metabolism
- Increases immunoadsorption activity

- Cell-surface properties altered
- Membrane potentials changed
- Increased leucocyte production of peroxide

2.2 Effects on Neutrophils

- It immunomodulates inflammatory diseases
- Nitric Oxide generation affecting TNF-alpha production
- Improves maintenance of homeostasis
- Alleviation of chronic stress by increased mobilization

2.3 Effects on Lymphocytes

- Graft vs. host disease – suppression of factors
- Cell surface properties changed
- Cytokine production changed
- T-lymphocytes hypersensitive to damage
- Induce tyrosine phosphorylation and CA2+ signals
- Reduce allogenic cells
- Photo modification of HLA-D/DR antigens
- Platelet concentration non-immunogenic
- Platelet factors increased, glucose decreased
- Prevented bone marrow graft rejection

2.4 Effects on Phagocytic Cells

- PhA explains immune-correction by UV
- Increased phagocytic activity

2.5 Effects on Low-Density Lipoproteins

- Lipid peroxidation in the membrane
- ROS production in monocytes

2.6 Effects of Redox Status

- Activate MPO and NADH -oxidase system
- Activate lipid peroxide concentration
- Reduce free radical damage
- Elevates the activity of antioxidant enzymes

Again, from his writings on the subject:

> *"We believe that the mechanism of action involves the UV light interacting with components of the blood … (as above) The net result is that there is a significant* **decrease in inflammation** *(important for patients with sepsis and inflammatory conditions) and* **the natural antimicrobial activity** *of the host cells is markedly increased. Another common observation is that the* **oxygen-carrying capacity** *of the blood is increased, which is beneficial for many respiratory diseases."*

What is so refreshing about Dr Hamblin's work is the solid, scientific approach while still recognizing that it takes an open mind to look at something that helps so many areas and seems "too good to be true." His credentials are irrefutable. This comes from a scientist that has spent over 30 years becoming a world expert in light and medicine. Why modern physicians do not listen to him is mind-boggling. Perhaps it's just ignorance. Perhaps it is not good for business. Perhaps it is not popular enough or not coming from a drug company. All that aside, for anyone with an open mind, **It's time to remember the Cure that Time Forgot!**

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Links

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B. https://drrowendrsu.com/wp-content/uploads/2019/04/document.pdf

C. https://ultraluxuv.com/what-does-uv-blood-therapy-do/

Dr. Ahvie Herskowitz M.D. on UBI

Dr. Herskowitz is a John Hopkin's trained cardiologist and immunologist and Professor of Medicine at the University of California - San Francisco. He is also the Founder of Anatara Medicine and the San Francisco Stem Cell Treatment Center.

In 2010, he formed his clinic to provide a world-class integrative medical team approach toward the prevention and treatment of vascular, immunologic, and difficult chronic diseases. With over four decades of experience in Medicine, Cardiology, Immunology, Regenerative Medicine, and Pathology, Dr. Herskowitz is one of the most senior academic, anti-aging doctors in the U.S. – https://www.anataramedicine.com/team/

> *"I have a research background in vascular immunobiology and immunology, and over the past six years, I have been treating my patients with UBI. The therapy is extremely safe. I have personally treated over 5,000 patients without a serious adverse event. The overall experience has been very, very positive.*
>
> *In a simple, 30-minute procedure, I can make the patient more energetically efficient. I can immunomodulate those patients that need to be down-regulated - as those with autoimmune*

disease. And upregulate those with the need for antimicrobial therapy as for acute viral and bacterial infections and even more now - fungal infections.

It has been shown that you can improve the transfer of light energy by diluting the blood, which is the protocol that we follow at our center. The internal energy transfer to the blood is accomplished with the new turbo cuvette, which allows for a lot more surface area and light exposure.

One of the most interesting things about UBI therapy is that you only need to treat a very small amount of a patient's blood to produce a whole system effect. With it, we have this balance of anti-inflammatory effect as well as reparative effects along with greater oxygen utilization with UBI."

These words should encourage many to look into this therapy. Dr. Herskowitz is not only an innovator but a leader of many physicians. As of this writing, he holds the position of president of the American College for Advancement in Medicine (ACAM).

– CHAPTER EIGHT –

LBI vs. UBI – In the Vein or Through the Cuvette

Laser, LEDs, and muscle/tissue stimulation

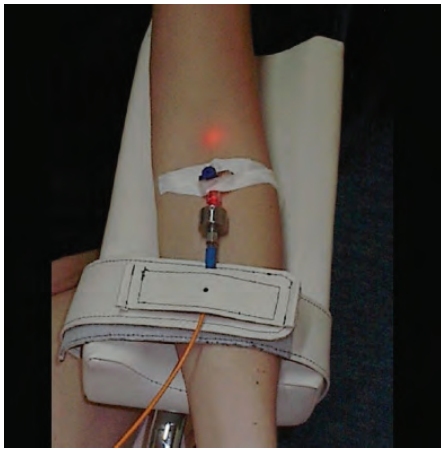
LBI and UBI have similar effects

LBI is favored in Russia

UBI takes fewer treatments and is favored in the US

Intravenous laser therapy (LBI) calls for a thin, sterile, single-use light-guide to be inserted into a vein. It is then attached to a laser light generator of a certain wavelength – commonly red. The laser light is absorbed by different blood components. This modifies the function of the blood cells and affects the immune system.

Does the teller of the story get to make a judgment as to what is better? In the case of LBI vs. UBI, it depends if you are from Russia or the United States. Intravascular Laser Blood Irradiation is referred to in this book as LBI. From those who make the LBI machines in Russia, it is termed IV LBI. Because of the design of the therapy and laser application, it is also called' low-level laser therapy' (LLLT) with the application of intravenous or IV. Another term is ILBI or Intravenous Laser Blood Irradiation (ILBI)



Which is better? You can read all about LBI in some of the online manuals that train on LBI, and, of course, you have this book that speaks of UBI. It is a fair estimation to say that they are very much the same. They have the same safety and efficacy. UBI is definitely stronger and takes fewer therapies for similar results. LBI may be a bit less intrusive but is commonly unavailable in the US.

LBI as therapy was started in Russia around 1981 as opposed to UBI, which started in 1933. LBI therapy allows for light to be delivered directly to the blood without extracting the blood. It was originally developed for cardiovascular diseases. There was such an improvement in the rheological properties of the blood and microcirculation (including oxygen uptake) that it was a natural therapy to work with cardiovascular issues. At first, the only color of laser available was the Helium-Neon laser at 632.8 nm or red-light laser.

When we think of lasers, we tend to think of the red dot of a laser pointer or scanner at the grocery store. Perhaps in the medical area, we might think of hair removal or laser surgery in the eye or even reduce wrinkles. There are many medical applications for using a laser or LEDs. A more common one is that of penetration of light into a muscle to stimulate blood flow, cut pain, and reduce inflammation. LED and Infra-red units are readily available on the internet. Professional versions with a more powerful red laser are also available and have good results and run into the thousands of dollars.

A while back, I purchased a small, shoe-box size unit for external light (transdermal) stimulation. The unit allows for four different pads to be attached. I have had both a laser head and Infra-red, and red LED light pads that penetrate up to 5 cm into the tissue. If my knee hurts or, more likely my hip, I spend just 10 minutes applying the light. It stimulates the area calling for healing and brings pain relief within a day or so. For me, I am usually pain-free for up to 3 weeks. Light can be delivered through the skin, and some do reach the blood. This indirect method has some applications as units have been designed to fit in the mouth - under the tongue. One study compared the differences between four different applications. [1]

- Transdermal at the back of the knee for 20 minutes (popliteal)
- IV laser for 20-30 minutes
- Two different units that produce UV light that fits under the tongue (sublingual)

The results were strikingly similar as they measured the energetic fields of the patients. Some may disagree that this is not a valid measurement for the more immunological effects of irradiating blood. There are also advantages and disadvantages to each usage. But you get the idea.

Size and power of the fiber optic laser

The fiber optic light guide has to be extremely small and fit inside a vein. The studies using LBI treatments in Russia were conducted once or twice a day, and this was done daily (or close to it) for a total of 10 treatments. A fiber guide needle was put into a large vein, and then the fiber optic would be inserted. The light was turned on for a period of 20-30 minutes, and it had an intensity of 1-3mW/cm2.

The Russians showed that the laser had a variety of good effects. They saw improvement in red blood cell conformity and in the immune system. These studies were mainly published in Russian and were little known in the West. There also seems to be a bias against Russian medical studies, perhaps because of our ideological and political differences. The Russians showed little interest in translating these studies into English and vice versa.

Many medical scientists have made their case regarding the efficacy of LBI. Dr. Mikhaylov of the Eternity Medicine Institute, Dubai, published an article for the Laser Therapy Journal that stated:

> *"For more than 25 years, the studies of my colleagues and I have shown that ILBI directly acts on the parameters of all the blood cells, on the state of the plasma, and on all the structural components of the vascular wall. In addition, by acting on immune system cells, hormones and exchange processes, ILBI can influence all the other systems of an organism."*[2]

In his more recent publication, he lists benefits of LBI that have a positive and powerful influence on:

- Oxygen uptake
- Blood cells
- Blood enzymes
- Coagulation systems
- Biological fluids
- Vascular wall and microcirculation
- Neo vascularization and Neo angiogenesis
- Cardiovascular diseases and ischemia
- Lymphatic system
- Nervous system

- Neuroendocrine system
- Immune system

He lists over 80 studies to support his use of the red laser intravenous system as an effective and formidable ally in the fight against not only heart disease but many illnesses. [3]

The advantage of these Russian studies is that they are more current and scientifically supportable. The action of LBI should not be taken lightly. It is a powerful tool.

Which is better, UBI or LBI?

When comparing the two, keep in mind that the therapeutic effect and the mechanism of action are **very similar.** The larger difference comes in the number of treatments, power of the light, and frequency (in nm or nanometers) of the light. The LBI uses one "color" at a time. Sergey Moskvin, [4] a Russian LBI researcher and author of 550 scientific publications, presents this in his book *Laser Blood Illumination. The main Therapeutic Techniques, Moscow 2018*. (See the end of chapter – Additional Reading) He comments that only one "color" (wavelength) should be used as he believes that there is an inhibitory effect to using more than one wavelength on a certain day. He also lists some of the positive influences on the system: Microcirculation, inflammation reduction, neurohumoral regulation, reparative processes, immune system improvement, endocrine system balancing, spasmodic action lessening, pain reduction.

He comments on a number of important parameters for therapy, including power, pulsing, wavelength, and duration. The end result is that LBI is well-tested, and there are directive manuals for its use. Like UBI, LBI is not a recognized therapy by the FDA or any conventional medical group in the US.

There is a wide array of uses for both UBI and LBI. Dr. Moskvin has successfully used this therapy on over 50 specific disorders that fall under the categories:

OB/GYN
Dermatology
Musculoskeletal Disorders
Peripheral Vascular Disorders
Gastrointestinal Disorders
Cardiology
Dentistry
Endocrinology
Neurology
ONT
Ophthalmology
Psychiatry
Pulmonology
Surgery
Urology

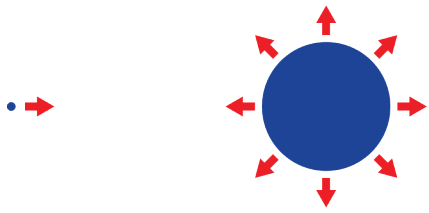
Of course, the LBI people (Russians and some Germans) have their reasons for saying that UBI is the more difficult and invasive with larger chances of infection. They love their LBI. It is available and accepted. UBI requires the use of a more expensive cuvette…it requires taking blood out of the body. The real issue is somewhat the medical culture and perhaps not so much expense. Consider these differences:

UBI – puts in 50 times the energy into the blood per therapy treatment. LBI puts in 8.1J/dose. UBI puts in and 400J/dose [5]

UBI – takes 1-5 therapies over a period of one month – LBI takes daily treatments for ten days and then is often repeated.

UBI – has a variety of wavelengths – LBI uses one at a time. Just think of the light in the vein from a fiber optic, which is the diameter of a paperclip or less. The diameter of the median cubital vein at the inside of the elbow is 1.8mm; the size of the fiber optic is 0.5mm.

With UBI, think of four 12" florescent bulbs shining 360 degrees with reflective surfaces, and the light hits a quartz cuvette that is 5mm from the bulb. It then strikes a tube full of rotating, moving, mixing blood. You can get 50X more power in one treatment. Also, consider that with UBI, there is UV light in three different wavelengths and also visible light in the blue spectrum. Some also add LED colored light to the UBI mix.



LBI light source UBI light source

One of the untested concepts concerning LBI is that "all of the blood" is treated as it flows by the fiber optic end. The problem with that theory is more closely examined in Chapter 10. It is known that blood and blood products absorb light at different levels. Red light bounces off red blood cells, and you can see the light making it all the way to the surface of the skin. Blue and green light are absorbed quickly by blood cells, and only a few of those passing by get affected. It is like shining a flashlight in a muddy river. The light is quickly absorbed by the dark particles.

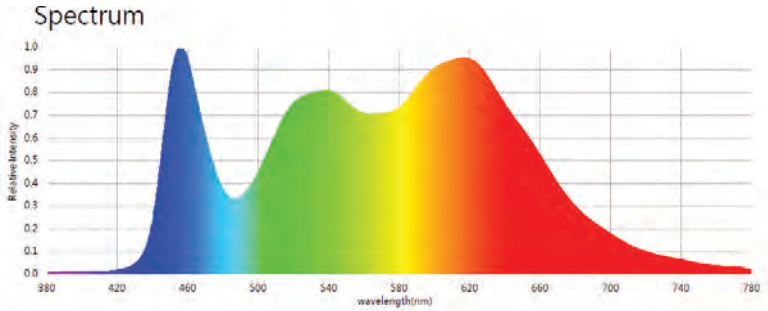
Studies of UBI vs. LBI

In one study after the Chernobyl nuclear accident, 312 workers got a significant dose of radiation during the cleanup. A Russian UBI device was used on 54 and LBI on 126, with the rest (132) getting standard drug therapy. With the UBI – 73% had normalization of microcirculatory and immunological indicators while 85% had similar results with LBI. It was not a well-controlled study as 39 of the LBI patients also received drugs at the same time. No follow up tests were done. Frolov et al. (1995). [6]

Another trial was conducted on hundreds of bronchial asthma patients. G.I. Sukhanova (1993) [7] LBI and UBI were both used with good effects. According to a summary by Ken Dillon, "LUBI had a more rapid effect overall and was superior in terms of bronchodilation and hyposensitization, while UBI had a more marked bactericidal and anti-inflammatory effect. Two weeks after treatment, however, UBI obtained better results in terms of microcirculation as well…" UBI was to be favored for more serious cases with infectious features. They noted that either approach combined with fasting conveyed a "beautiful therapeutic effect." "UBI 's superiority also showed up in four successive trials on bronchial asthma in hundreds of patients – a powerful indication that, in fact, has a more profoundly therapeutic effect."

Dillon goes on to comment that the differences may be from:

1. UBI has a great number of wavelengths. In discussions with Ken Dillon, he voiced that a full spectrum close to sunlight's spectrum is best, in his opinion.
2. Ambient photons that hit the blood outside of the body may have an effect.
3. UBI possibly had a more profound effect on the production of more new red blood cells from the marrow. [8]



LBI Advantages

Less expensive

No requirement for anticoagulant

No need to end up with significant blood products for disposal

No blood outside of the body

LBI Disadvantages

Not readily available in many places

Small amount of energy to the blood

Single light color at one time

Devices must come and be serviced from Russia or Germany

Multiple office visits required

UBI Advantages

Readily available

Fits easily into IV room application

Extensive training available

Service in the US available

Low cost of entry for physicians

UBI Disadvantages

More expensive per treatment

Need prescription anticoagulant

Takes at least 30-45 minutes

Blood products disposal needed

Q. Is full spectrum light better or one color …

A. I don't think anyone has the answer.

Mention should be given to the Weber LBI unit from Germany. Dr. Weber has spent years developing a device with several fiber optic colors. He has training centers in Germany and Thailand. He has patented his machine called the Weberneddle® laser device and has up to 12 different wavelengths of colors. It is also CE certified in Europe.

A basic concept of the monochromatic (one color) light is that many studies have been done that indicate what a single light color will do to cellular components.

The Knott machine mode of therapy is different in that it has all of the visible light wavelengths along with UV light and, of course, delivers a lot more power.

The big question is which color is best or is a full spectrum best. I asked a world expert on light and medicine, and his comment was: "You have asked the key question, and I don't think anyone in the world has the answer." Many have opinions, though!

The Weber unit also has a bit of a barrier to entry in that the set up will cost $ 20,000 - $ 30,000. Dr. Weber has compiled an impressive list of studies that support that LBI (and UBI) is an effective therapy. An internet PowerPoint is available for you to view.[A]

LBI in Trouble in the US

Some years ago, UVLRx – a US-based company, designed their LBI unit with three wavelengths. It was expensive, but the encouraging part was that it was doing an IRB (Institutional Review Board) that allowed its use according to the FDA. About

100 physicians signed up. Unfortunately, it got some really bad press from a Forbes article, "*UVLRx Therapy Lights Up Charlatans Dealing In Medical Devices*,"[9] and the IRB was pulled. According to the FDA, it was never properly applied for. The bias of the author and her sources were again affirmation of what the conventional system wants to say about complementary/alternative medicine without any real research.

Summary:

UBI and LBI are basically the same therapy. We dare not minimize the effectiveness of LBI. Tens of thousands have been helped by this light therapy. The lineup of studies is very impressive. Perhaps Russian studies are not held in high esteem, but they are more contemporary and accomplished with good medical rigor. It means that we can trust that LBI is a great tool against disease and disorders.

Many more studies could be compiled to support the use of LBI (and consequently UBI). It would really help to understand the Russian language and have access to their medical journals, but after a while of looking up studies, it becomes redundant. How many times do we have to read that it is a positive, immune-modulating therapy? How many times do we need to measure blood parameters? The real proof is in its usage in modern medicine. The Russians are doing light and blood therapy, as are hundreds of German and US physicians. Thousands each week are treated with light and blood therapy. They are the happy recipients of something that works when medicines have failed.

Additional reading:

Intravenous Laser Irradiation of Blood: current state and future perspectives. Levon Gasparyan, Anu Makela EMRED Oy, Helsinki, Finland ABER Institute, Helsinki, Finland https://www.semanticscholar.org/paper/Intravenous-Laser-Irradiation-of-Blood-%3A-current-Gasparyan/087b375a589675144932506ab58095b2bc7057f3

The intravenous laser blood irradiation - Introduction of a New Therapy, M. H. Weber https://www.isla-laser.org/wp-content/uploads/Chapter-Weber-final.pdf

Laser Blood Illumination. The Main Therapeutic Techniques S.V. Moskvin http://www.eanw.org/konkurs-2018/Moskvin_Laser%20Blood%20Illumination.pdf

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Links

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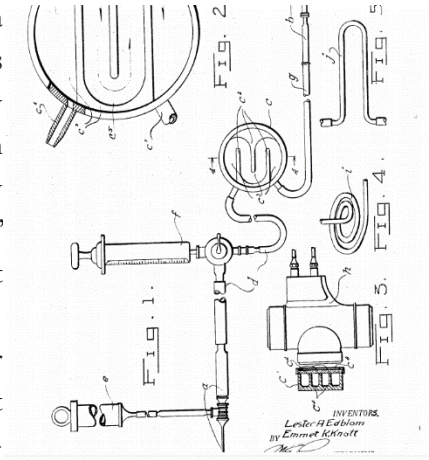
– CHAPTER NINE –

UBI Machines

Light generated and what makes for a good therapy?

Sometime around 1923, Emmet Knott and his colleague Lester Edblom began to think – "Let's cure bloodstream infections with light." These mid-20-year-old entrepreneurs and researchers took it on themselves to begin the process.



Where can I get a UV light source? What glass lets UV light through? How do I get the blood to travel in something that would allow for the blood to get "rayed?" What is too much light, what is too little?

This was a 5-year journey, and they were in it together. Their theory obtained from the patent was that: [1] UV light will kill infections that are in the blood. They speculated that:

1. Treating with UV light removed toxins from the infected person's bloodstream
2. Beneficial energy is stored up in the rayed blood…and when returned, it will throw off secondary radiations which will stimulate and energize the patient

The simple design gave us the first UBI patent in 1928. There were a number of challenges, but foremost was the cuvette (exposure device for blood) and the water-cooled UV light generator.

The generating light is one main component of UBI therapy.

- What intensity is best?
- What wavelengths?
- How is it delivered to the blood?
- When does overdosing occurs?
- Might it heat up the blood too much?

UBI Has No Serious Critics

Dillon says it well "The curious reality is that UBI has no serious critics. A serious critic would read widely in the UBI medical literature, carefully study the photobiological and pharmacological mechanisms of UBI, consult extensively with UBI practitioners, and conduct well-conceived and objective clinical trials. Nor do there appear to be any serious criticisms of UBI, i.e., criticisms that are based on in-depth knowledge and evidence."

From the years 1933-1952, Knott therapy was powerful against infections. We must admit that Emmet Knott and his fellow physicians had thousands of patients that had only one treatment and recovered. Many had 3 or 4 treatments and recovered from very serious disorders. They included polio, acute hepatitis, pyogenic (pus producing) infections, pneumonia, tuberculosis, pelvic inflammation (associated with pregnancy),

and septicemia. These disorders produced infections that, at that time, could not easily be remedied. This is a pre-antibiotic time.

I have talked with many of today's physicians that have said, "Things have changed. The diseases and conditions are harder to treat today than they were 30 years ago." Many would point to reduced nutrition in our food, pesticide and herbicides, antibiotics, compromised gut health, and a general decline in exercise and poor mental health (i.e., stress) as major factors in this. It makes treatment a multifaceted "animal." There are many tools in the toolbox of alternative medicine physicians today. For Knott, Rebbeck, and others, UBI was a godsend. They had one tool to combat inflammation, infection, poor oxygenation, and even autoimmune disorders.

Today it may take more treatments than in Knott's day, but the UBI therapies seems a bit gentler but still effective. You may like to skip to the next chapter, but from a scientist's perspective, it may be beneficial to look at the energy levels of Knott's original machine.

Knott's Energy Level

One of the best quantifications comes from the AMA in a 1952 paper. [2] This paper had the distinct purpose of discrediting Dr. Knott and his therapy.

From their study, I think that we can trust that they measured the light properly (a Burdick water-cooled ultraviolet generator). They even listed that Dr. Frank Oppenheimer did the testing.

> *"The lamp submitted to us was an ultraviolet mercury lamp with a 250-watt alternating current burner. Measurements with phototubes at 2 cm. distance gave the following results:*

4 milliwatts energy below 2,800 A.

12 milliwatts energy between 2,800 A. -3,800 A.

10 milliwatts energy in visible light.

8 milliwatts energy in infrared.

The total ultraviolet emission at 2 cm. is therefore approximately 16 milliwatts, and about 10% of this is in the spectral band of 2,537 A. The energy output of ultraviolet rays is considerable, but the emission in the sterilizing range of 2,537 A. or below is relatively low. Furthermore, the quartz plate, which is 2 mm. thick, absorbs approximately 10% of the ultraviolet energy. As a sterilizing lamp, therefore, the Knott hemo-irradiator is not an efficient burner." (meaning sterilizer)

I have included the total quote to hint at the AMA's (in particular, its president, Morris Fishbein's) intention. In the same study, they quote from E.M. Knott that UBI works on the premise of the body's ability to "increase bactericidal properties" and "enables it to overcome the infection," and it seems to be "indirect action."

Knott had stated earlier, and restated later, that he had revised his original theory – that UBI was not killing bacteria directly. UBI was not a sterilizer of the blood. He knew that only a small portion of bacteria would be affected by the light. Now, 20 years after Knott had revised his theory, facts did not stop the AMA from testing and claiming that Knott's machine was a poor sterilizer.

Dynamics of UBI Devices

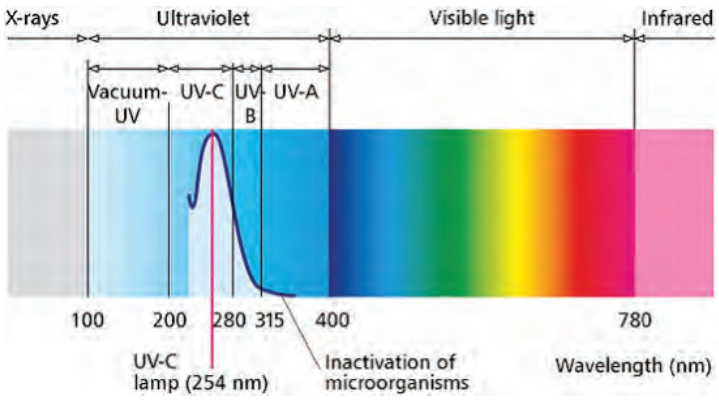
UBI units that are currently available include a number of the smaller UBI units from Germany and Canada that use a 6"

UV fluorescent bulb. Often there are one or two of these bulbs in the unit. This is woefully negligent compared to the energy put out by the Knott machine. The units are also deficient in cuvette surface area, blood flow, and surround lighting.

There are reasons to look at the Knott machine as antiquated, but to discount the energy output and the success rate of patients is myopic. A number of today's machines do not even come close to the energy output of the Knott machine as is discussed later in this chapter. There are more things to measure than output, but the basics of energy consideration are milliwatts per centimeter squared per second or mW/cm^2/second. This indicates energy on a square centimeter of surface area for a period of time.

Let's just say that the Knott machine had a lot of light energy…so much that they put in a shutter to block some of the light. There was also a lot of heat from the bulb that they had to deal with. That is not the problem of today. This is discussed more extensively in the Knott's Tortuous Turbulation Cuvette Chapter that follows.

The Electromagnetic Spectrum



Here is what we know:

1. Blood absorbs light energy, and it causes biological effects on the mechanism of the blood cells and other blood components.
2. UVC light is germicidal (kills germs – i.e., bacteria, virus, yeast)

What is known about these three waveband lengths of light, and their apparent healing properties can be studied in great depth? In this presentation, we fly high (an overview) … and dive in a bit lower at times.

Light is energy. Wavelength determines some of the characteristics that are used for therapy.

- **UVC –** 200-280 is the shortest wavelength and has the best germicidal qualities
- **UVB** – a bit longer at 280 - 315
- **UVA** – 315-400 longer yet and bordering on the visible spectrum of blue light

Blood Absorbs Light

One aspect of good therapy considers light and its absorption into blood products. The reference below considers what wavelengths are best absorbed by RBCs or Red Blood Cells. This is an important aspect when using various light sources.

> *"The outstanding absorption peaks appeared at 416, 542, 578nm in the absorptions curve of RBC, but there were also absorption peaks at 282, and 345 mm. The absorbance of RBC almost reached zero, and no characteristic absorption peaks between 600-800nm wavelength were observed."*[3]

What are the actions of UV light as a therapy for human diseases and conditions?

1. **Germicidal** – Inactivation of pathogens in the blood caused by an immune response and also anti-inflammatory effects were observed that improved the immunologic activity of the blood. [4]
2. **Rheological Effects** - increase in the oxygen-combining power of the blood and oxygen transportation to organs, vasodilation, decreased viscosity of blood, improved microcirculation, improvement in peripheral circulation, increased erythrocyte production, and decreased platelet aggregation. Improved deformability of erythrocytes results in an improved oxygen supply. [5]

   From an expert on this comes:"At the same time the leading role has membrane modification activity of UV radiation on erythrocytes, leukocytes, and thrombocytes, which determines, on the one hand, changes in functional state and properties of these cells, and on the other - elimination from and entering in the blood circulatory channel different biologically active substances and components of the cell surface"

3. **Immune boosting -** UBI stimulates the activity of white blood cells raising the anti-disease ability of the body. Dr. Gasparyan wrote:

   The bactericidal activity of extracorporeal UBI is implemented by double ways - not only and not so much due to the direct bactericidal effect of UV ray, as due to activity of the immune answer of the organism. Extracorporeal UBI results in changes of functional trends of all parts of immuno-defence. [6]

4. **Auto Immune's positive response** – When our body is attacking itself, we find that UBI will destroy

> excess amounts of various white blood cells. In autoimmune disorders, it appears that the metabolically active T-cells and other immune cells are in greater quantity and absorb much greater numbers of biophotons than ordinary body cells, and this destroys them, thus slowing down or stopping the disease. [7]

Which Band of UV Light is Best?

Facts About UVC

All three of the bands A, B, & C are absorbed by the whole blood, but only one is recognized for its germicidal effects. UVC's maximum killing power is at around 260 nm, and the transmission of a Hg low-pressure fluorescent bulb is very close at 254 nm. It does this by disabling (breaking apart) the DNA strands within the nucleus of the living cells. This makes the "germ" not able to replicate. Realize the red blood cells do not have a nucleus. Also, realize that bacteria, fungus, virus – living organisms do not belong in the blood.

It is not so important that a lot of blood has undergone this germicidal light. In older UBI therapies, 3-5% of the blood is treated. Newer protocols now call for about 1% of the blood or 60cc mixed with 160ccs of saline. Few of the viruses in this blood are inactivated because of the high absorption of the first layers of RBCs. A contemporary study on Hepatitis C is a good example of a modern-day, successful UBI protocol. [8]

As a sterilizer out of the blood, UVC is powerful. We see applications of this in water, air and surface sterilization. [9]

In study used to validate a patent, UVC light was examined for both inactivation of virus and bacteria and maintaining the integrity of blood products, it was shown to do both from optimal exposures of UVC at 240 – 500J/m2. [10]

What level of Joules is too high? A University of PA study states that 1,500 J can give platelets a "sunburn." It is possible that this much energy could have unavoidable consequences to platelet function. [11]

But we are still only talking about less than 1% of the blood that gets exposed. In fact, according to a report by G.I. Levashenko reports that the top 5 cell layers of erythrocytes (top 30um) flowing through a cuvette absorb 96% of all UV radiation. [12]

This would mean that only 4% of the blood passing through the cuvette is affected by the light, and then, if only 1.2% of the blood is drawn from the individual. That means that **.05%** of the blood (less than five/100s of the total blood) of an individual is affected by the UV light per treatment. In the world of medicine, this is an astounding statement. Less than **.05%**.

Will the viruses and bacteria be affected in whole blood products with such a little amount of light? Yes. We can turn to some of the clinical studies that show viral disorders being affected by UBI.

> *Shyrygin showed:"The use of UBI in the complex therapy of patients with tuberculosis was ascertained to promote a rapid, two-fold, more frequent bacterial isolation cessation resulting in (an inability to spread) in the patients, to have a positive impact on the formation of immune defense, mainly of a phagocytic link, in children and adolescents, to exert a detoxifying effect, to favor a better tolerability of anti-tuberculous drugs, to cause positive X-ray changes, and to improve the quality of life."*[13]

Clinical trials of UBI were successful against pneumococcus, staphylococcus, streptococcus, and a mixture of other microbes. In a 182-patient study with 90 as a control. The treat-

ment group recovered 5-7 days more rapidly, had fewer complications, and experienced a reduction in fibrinogen to normal activation of anticoagulatory and fibrinolytic elements. Regarding patients with an initial anemia, those treated saw a 30.7% increase in erythrocytes or red blood cell production. [14]

Another study from 1994 had three groups with chronic active hepatitis and cirrhosis of the liver patients studied.

Group 1 – (20 patients) standard drugs - Group 1 – 12 of 20 had good results, two died
Group 2 – (16 patients) LBI treatment - Group 2 -13 of 16 had good results.
Group 3 – (10 patients) LBI infusion treatment. Group 3 -10 of 10 had good results.

The authors suspected that improved microcirculation in the liver was a factor and accounted for the superior outcomes [15]

Realize that UVC also loads the red blood cells with energy. Studies show that light energy is absorbed by the hemoglobin. It also affects the near membrane surfaces of the RBC, allowing for the elimination of products of inflammation. The result is increased oxygen in the system, a better rheological effect on the blood, and improved microcirculation.

What about UV B

This is the light of choice for Graft vs. Host Disease (GVHD) therapy and studies. It is somewhat different in action than that of UVC. The goal with this light is to irradiate the mononuclear leucocytes as they have been shown to induce humoral immune tolerance to major histocompatibility complex (MHC) antigens. [16]

The idea is that the application of UVB-irradiated leucocytes may induce cellular immune tolerance.

These studies have been around since the mid-1980s. The title of a Georgetown University study states one of the ideas – "Ultraviolet-B light inactivates bone marrow T lymphocytes but spares hematopoietic precursor cells." [17]

Prevention of Graft-versus-Host Disease is a major issue. Most of these drugs for this disease work by damping down your immune system and so stopping the donated cells from attacking your body. If you have GVHD, you are at a greater risk of getting an infection because it weakens your immune system. Treatments for GVHD further increase this risk. Not so with the light therapies.

Some of the studies have used UVA with psoralen, which causes photosensitization to the light. It is called PUVA (Psoralen Ultraviolet A) and is photochemotherapy or light therapy. Research has shown it can help with chronic GVHD affecting the skin. Other studies are showing a positive effect on bone marrow donors.

Not all of the GVHD studies use just UVB narrowband – some use UVB that also have UVC. Effects have been positive on both counts.

UVB is commonly used in UBI treatments that deal with immune-boosting, increased oxygenation, or even autoimmune issues.

UVA – Absorption Hero and Photopheresis

UVA is the longest of the UV lights. It appears that blood is much more suited to absorb the energy of UV light, with absorption peaks at 416nm. At 600-800nm (visible light), the absorption of whole blood, erythrocyte, leucocyte, plasma, and serum is less than 5%.

Realize that one of the major actions of light therapy is that of blood absorbing the energy of light and then causing a host of positive reactions to occur. UVC is also absorbed and is assumed to contribute to the positive effects.

Here is one summary/suggestion:

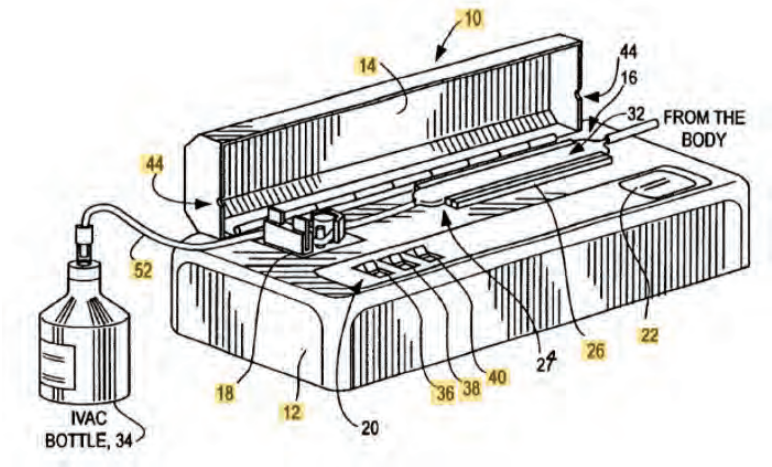
"The cytochrome absorption makes the photon act as a carrier of biological energy as the cytochrome system in the mitochondria can absorb the photon and stimulate electron transport, which generates bioenergy in the form of ATP from ADP. Many feel that the respiratory chain is at the base of any effects that laser (light) therapy might have." [18]

As far as UBI on the whole…

"Other short-term effects include a modification of erythrocyte membranes that releases substances into the blood that appear to stimulate further changes; structural changes in plasma proteins (IgM can be activated up to 16 times normal); activation of complement; immediate release of free radical oxygen, followed by a rise of antiradical factors; expansion of blood volume and a slight decline in hematocrit; a drop in blood pressure; degranulation of granulocytes and mast cells; short-term decline in the number of platelets and sometimes in their functioning; activation of fibrinolytic factors and reduction in the activity of coagulants; and enhanced phagocytosis. In effect, the entry of the energy from UBI into the blood – a dynamic, energy-bearing fluid – change the "correlation of forces" in the body in dozens of ways that benefit the entire organism. [19]

The First US UBI machines after Knott

Back about 15 years ago, I came upon the Bob Clark UBI machine. There were a couple of local physicians in Michigan using it, and it was certainly having some success. It was using a Russian flat cuvette that was expensive ($100). The cuvette had to be cleaned out each time and usually used for the same patient on subsequent treatments. The blood would flow through the 1" wide cuvette that had an upper and lower 6" UV bulb. I will talk about the extremely important topic of turbulation in the next chapter. The intensity and energy of the light is also discussed later on in this chapter. The flat cuvette is particularly troublesome regarding its blood flow, in that it tends to race down the center while the blood eddies on the sides and can overheat. This has been attested to by a number of physicians who did thousands of flat cuvette treatments.



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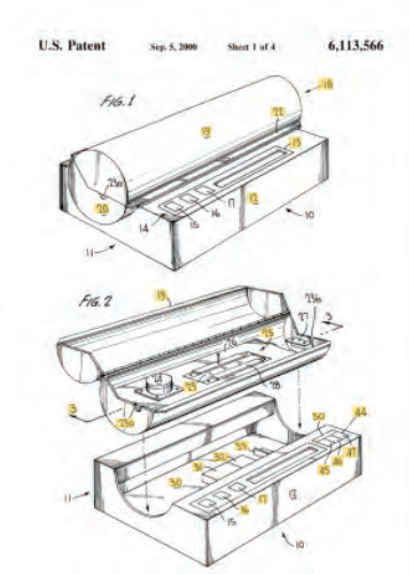
***Clark Robert** E. Hemo-aide.*



Carl Schleicher Patent

The patented Clark machine is very similar to the Carl Schleicher machine of 1990 in that it used 2 – 6" UV bulbs.

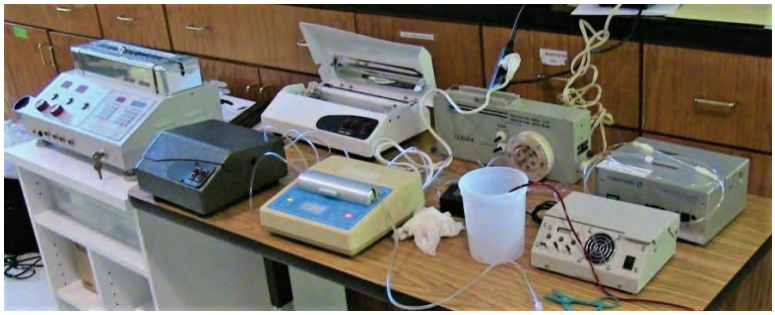
Schleicher was instrumental in seeing the ABIS (American Blood Irradiation Society) continue. He was part of putting together the 280-page "UBI – A History and Guide to Clinical Applications 1933 – 1997." This was authored and had writings and studies from the pioneers of UBI - George Miley, R.C. Olney, and Harry Lewis.[20]

A new non-profit entity was created in 1996 called 'The Foundation for Blood Irradiation.' Its goal was to promote UBI education. The Schleicher machine was somewhat modified and claimed to be the "new" Knott machine hemo-irradiator. It did not fool the FDA and was never "grandfathered" into acceptance. In contrast to the original Knott machine, it featured two rather weak UV bulbs and a flat cuvette. It was nothing like the powerful bulb of the older Knott machine and its turbulation, cascading blood shelves of the 2" circular 1" deep Knott cuvette.

I have looked at every UBI machine that I could get my hands on. There are two main components: 1) the light sources and their power, and 2) the style of cuvettes. For effective light therapy, we need to measure the intensity and wavelength of light that irradi-

Turbulation:

Changing a laminar flow to a turbulent one.



ates the blood. The cuvette also makes a huge difference (see the chapter on turbulation). A good place to measure this is at the cuvette surface. Better yet is the inside of the cuvette. To date, I know of only one manufacturer that goes to this extent.

Invisible in Germany

In 2009, I went to an alternative medicine conference that is world-renowned. It is the Baden-Baden Medical Week Conference in Germany. I was there to display a new UBI device. With great new modifications, I thought that it would be a booth that would attract many. I hired two medical students over the internet, who were fluent in German and English, and I traveled to Germany.

Set in the beautiful Bavarian Black Forest, it was a pleasant fall day when I arrived. The building was a three-story modern structure – not real big. I was accustomed to the US conferences where there are a hundred or more booths beside each other with two tracks of speakers. This was not that. Undaunted, I set up the booth and met with my interpreters. I was obviously American, and it was apparent that Germans had set up this conference, Germans had decided on the speakers, Germans were the favored companies, and they attracted the most attention.

I felt like I was invisible. Physicians would walk by with hardly a glance. It did not matter that I had a German interpreter. I was the American cowboy riding in with my new American product, and the participants had no interest.

Hans Muller was the man who had originated the German UBI machine – Eumatron. The unit uses two 6 "UV bulbs like the Clark and Schleicher machines. I did have the opportunity to meet and speak with him. He claimed to have 3,000 units out in the world. We discussed a few ideas on lights and intensity, and it was immediately apparent that he had no interest in changing his methods or machine. I am sure that I looked like a naïve soul with a small idea. The use of weak Eumatron units in the US caused many physicians to say that they were not effective. There are some 6" bulb units sold out of Canada to physicians.

UBI Lights Made Simple

Quite obviously, all units have some kind of UV light source. These easy-to-use and inexpensive fluorescent UV lights were not available to Emmet Knott in the 1930s or even 1960s. The Knott machine has been called the "gold standard" by some. It was effective but was a machine from the 1940's era with antiquated mechanisms. It was very hot and needed water cooling. Gears and chain assemblies were also

FDA

There is no UBI device nor cuvette that is available in the US that is FDA approved, registered, or certified. All devices are sold not as a medical device, but some sort of purifier. If a device manufacturer wanted to get FDA approval, it is a multi-million-dollar attempt that would take years to complete. It also may be in competition with pharmaceuticals and may bring on their "disapproval."

a part of the device. Any change in the light, power source, or mechanism changes its acceptance by the FDA. From a reliable legal source, even the Knott machine itself was not "grandfathered" in by FDA. It's older light source and mechanisms are not only outdated, but parts are unavailable.

Measuring energy of the different machines:

Keeping parameters equal, research was done to compare energy outputs of the differing UBI devices. Basic parameters were taken into account: cuvette surface area, the time it takes to travel in the cuvette, energy per lamp, and the number of lamps. The following chart compared energy values.

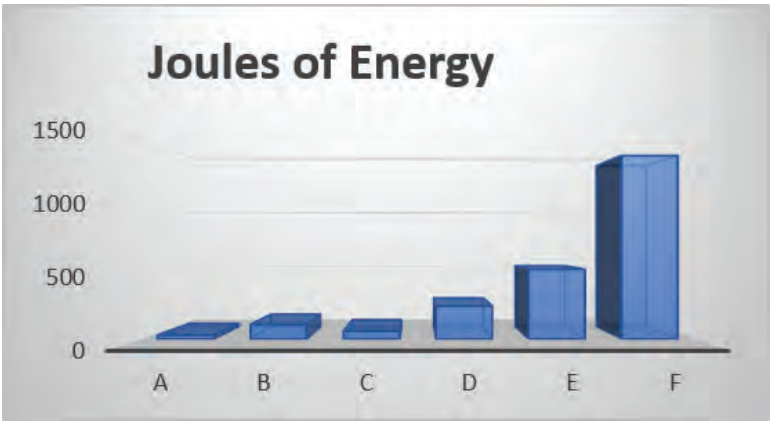
A = 6" single bulb unit
B = 6" double bulb
C = German double 6" bulb with an insert
D = Knott machine
E = double bulb with a flat cuvette
F = 12" Quadruple bulb unit with turbo insert

It is quite obvious that the 12" bulb unit puts out more energy than the Knott machine. Is it better? Yes, in that we can quantify the energy and do more exact measurements. There is now an easier protocol, and machines are available for servicing and sales. Clinical results for these newer, multi-bulb devices have been said by many to be similar to what was seen in the 1940s studies using the Knott machine.

Why the 6" bulb units are weak

When considering the light from a UV fluorescent bulb, it must be considered that full energy does not travel along the

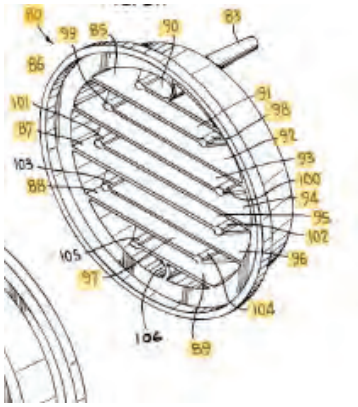
whole length of the tube. It takes getting past the electrodes before full energy is accomplished. A 6" bulb only has about 2.8" of full energy, while a 12" bulb has 8.7". A 12" bulb has over **three times** the power of a 6" bulb.



Knott Light

The older Knott machine had a single round light source. One consideration for the machine is that the energy was a strong burst. This excess light may account for its success even though its Joules/m2 was not high. One person put it this way: "Knot was like an on-off flashbulb whereas the newer units are like a continuous lamp."

It was a few years ago that Dr. Robert Rowen allowed us to come and visit his clinic and watch the operation of one of the few remaining Knott devices in operation. We were able to video the whole procedure, and it was interesting from start to finish. From our modern point of view, it was a bit cumbersome. Blood was drawn up into a bottle, and from that, an older style pump engaged and sent the blood into the cuvette and back to another bottle.



The cuvette was a fascinating design. First patented in 1933, it was about the size of a big snuff can – about 2" in diameter and 1" thick. It had an inlet and outlet attached to a silicone hose. The body was made of solid metal with plates that made the blood splash down from side-to-side as it descended to the bottom. The plates pressed up against a 2mm thick circular quartz plate. Each time therapy is accomplished, the unit is dissembled and cleaned for the next patient. Certainly not something that we want to be doing with today's medicine.

One more unit to mention is one that is not available. It is the "great-grandson" of the Knott machine. They have tried to duplicate the Knott therapy using up-to-date mechanics. They have also gone through two FDA trials on Hepatitis C.[21] Although UBI was proven effective, a drug combination with good Sustained Viral Response (SVR) came along and eclipsed their study.

Summary

Although dose relationships are hard to pin down from the studies, it is apparent that many of the UBI units currently being used in the world put out a very small dose. The real questions are:

1. Does the device give off what would be considered the best dosage of light?
2. Is the surface area of the cuvette adequate and getting light all around?

3. Are there good flow dynamics within the cuvette?
4. Does the medical practitioner expose the right amount of blood to that light and for the right amount of time - controlling speed and volume?
5. Are the most beneficial wavelengths being used?

Most of the physicians in the US have left the weaker UBI devices in favor of those that give out a more Knott-like amount of energy. Part of the goal of this writing is bring more standardization to the practice of UBI. Physicians need to know, and so do patients.

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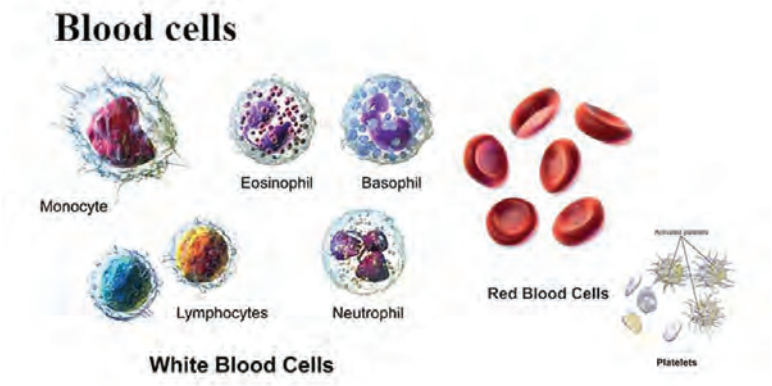
21. see note on 8

Another Quick Look at UBI action

Dr. Levon Gasparyan, Head of Research and Development of EMRED Oy, Finland, Helsinki



Extracorporeal UV blood irradiation (UBI) launches the cascade of photochemical processes in the blood.

There is membrane modification activity by UV radiation on erythrocytes, leukocytes, and platelets. Namely:

1. Changes in functional state and properties of these blood products.
2. They enter into the circulatory system as different biologically active substances on the cell surface.

Also, large albumin molecules are broken up into smaller products (a good thing).

These substances **play the role of antigens,** giving rise to the appropriate immune reactions in the patient. As a result, UV radiation induces the production of biologically active substances like prostaglandins and hormones in the blood.

Monocyte, lymphocyte – Specific immunity

Neutrophils, eosinophils, basophils – Nonspecific immunity

Red Blood cells – Transport gases

Platelets – Clotting

Quick Thoughts:

UBI acts like a "multi-drug" using only light. It causes healing by changing the blood components in a very positive way.

It also makes an army of new red blood cells all charged and ready to work.

Your blood also picks up more oxygen and flows a lot better (rheology)

UBI stimulates the making of young, highly metabolic, increased receptor activity red blood cells. The quantity of misshapen red cells also decreases.

Regarding leukocytes, immature cells diminish, and lymphocytes, monocytes, and eosinophils increase. The number of lymphocytes is enlarged more than other leukocytes.

Extracorporeal UBI also reduces the viscosity of the blood and improves misshaped red blood cell membranes.

After UBI, there is an increased oxygen transport function. Levels of O2/CO2 are balanced, reflecting heightened utilization of oxygen by tissues and activating the redox processes in them.

Killing bacterial/viruses after a UBI treatment is due to the increased immune answer of the patient. UBI changes functional trends of all parts of immune defense.

There is increased phagocytic (bacteria engulfing) function.

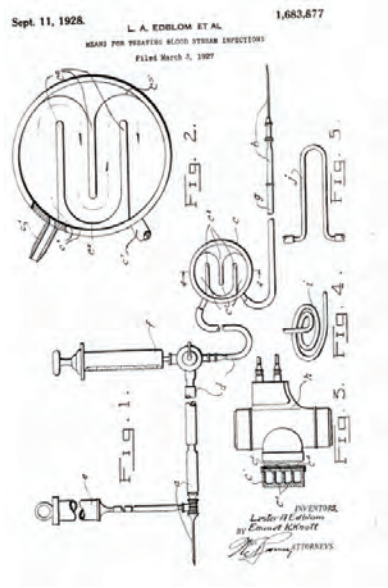
After UBI, the immune status changes depending on the severity of the illness. If the immune system is hyper – it quiets down; if it needs a boost, it gets a boost. It is immune-modulating.

Read the original: https://ultraluxuv.com/wp-content/uploads/2015/03/A-PHDs-look-at-UBI.pdf

– CHAPTER TEN –

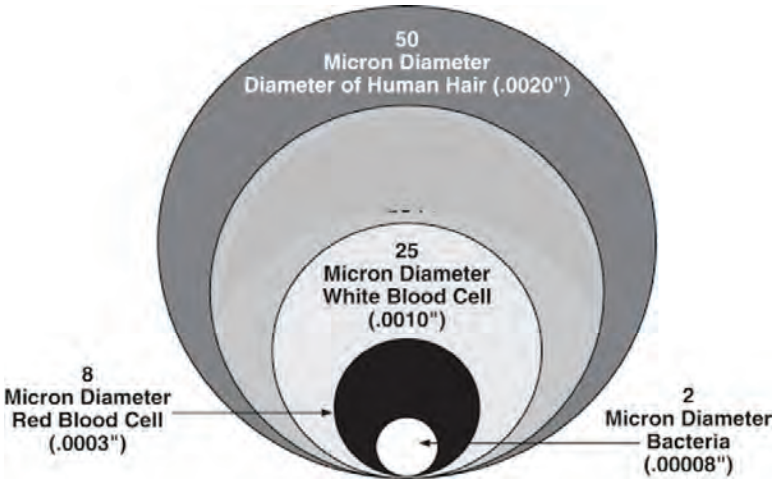
Knott's Turtuous Turbulation Cuvette

Turbulation and Dilution



In Michigan, we get a fair amount of wet snow. It is usually accompanied by big flakes clumped together. It is beautiful unless you are driving. Those big flakes constitute a problem if your windshield wipers are not working properly. Sticky, swiftly-moving flakes impacting a moving vehicle with no wipers eliminates visibility within seconds.

From the very first writings, physicians and scientists observed that when blood washed over the glass in a cuvette, immediately there was what they called "a film" that cut the penetration of UV light. For UBI, this was disastrous.



A blood film on the cuvette glass means that the light never penetrates the rest of the blood cells. This was known back in 1928 when Emmet Knott got his first patent.

You might ask: "Well, how thick of a film was this?" From a later study, we found out that it was a "hair's breadth." Actually, it was a lot smaller than a hair's breadth. As I was looking into microns (one-millionth of a meter) as a size dimension, I pulled out a hair and laid it on my page. The average diameter of a human hair is 50 microns. The human eye's lower limit of visibility is about 40 microns. The average size of a red blood cell is 8 microns.

In this somewhat hidden study, a Russian researcher Levashenko [1], found that UV light does not penetrate more than 4 -5 blood cells deep or 30 microns. This measurement of 30 microns is truly "the film" that Knott and others were concerned about.

Fused Quartz Glass

This is a special glass that allows the UV light to penetrate into the blood. Regular glass blocks almost all UV light.

Imagine a river that is 30 feet deep, and once you get 4 inches below the surface, it is pitch black. This is the situation that E.K. Knott had to overcome in his first machine

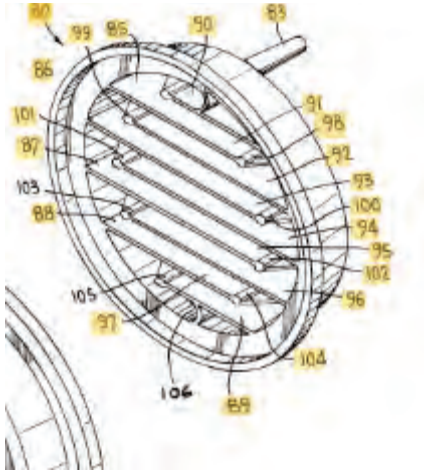
design, and he addressed it in his first patent. [2] As a young scientist, physicist, and radiologist, he had a keen mind and an eye for problem-solving.

This "film" of blood on the quartz surface blocked UV light from getting to a majority of the blood. This concern was stated a number of times in his writings and the writings of others. His exposure chamber patent shows his genius far ahead of modern medical science. His cuvette was a device that allows UV light passage through a special quartz glass. The blood flowing behind the glass picked up the light.

1928 Patent - His first patent (above) showed the blood going through a U-shaped circuit (up/down/up/down). In the patent, he states: *"Such exposure chamber is constructed to produce* ***turbulence*** *to prevent setting out of the constituent parts of the blood, and the uniform and thorough raying thereof."* In the patent, he also called "*The exposure chamber…defining a tortuous passageway"*
Even as they had success in 1928 with this therapy, Knott was not satisfied.

Knott Patent # 2

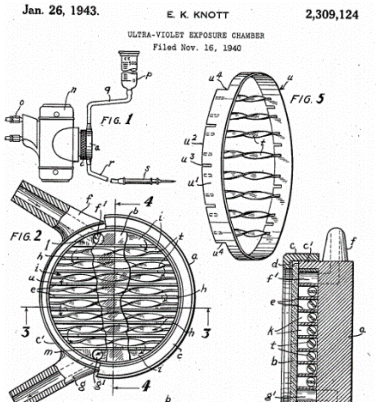
Knott's second patent states, *"Inasmuch as the ultraviolet radiations penetrate blood only to a* ***relatively slight depth****, it is evident that only those particles immediately adjacent that the surface of said blood toward the course of radiations will be exposed and that each individual particle will remain in this*



region of effective exposure only a small fraction of the time required for it to pass thru the chamber." (line)

This design has a series of metal baffle plates that press against the glass. It was open on one side, causing the fluid to traverse the "ramp" and then fall to the next level. This back and forth action was Knott's solution to "clean the glass" and allow for new blood cells to be exposed.

Knott Patent # 3



Even that mixing was not enough for the inventor. His final cuvette improvement commented on this:

"The primary object of my invention is to provide an exposure chamber of this character in which blood is directed along a **tortuous passageway** beneath a window permeable to ultra-violet radiation and said stream of blood flowing along said passageway is given gentle turbulence to cause it to flow **toward and from** said window."

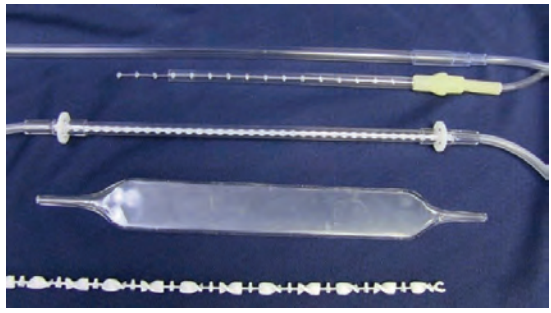
The window here is the face of the cuvette – the location where all the rays are absorbed.

His masterful invention was that of helical mixers that moved the blood even more as it contacted the surface of the quartz "window."

Turbulation was a key component of the Knott machine and Knott Technic. He knew that to get a good therapy, he was going to have to overcome the "film" issue that he noticed.

Today's UBI Ignorance – Turbulence

Unbelievably, today, all but one UBI cuvette takes no note of what Knott deemed to be of primary importance in UBI therapy. There are straight tube cuvettes with no turbulation; there are flat cuvettes with no turbulation. A German design put in a plastic insert with a small stick-like protrusion. It provided no mixing any more than a stick in a stream. Another model buried a "pearl string" in the middle of the cuvette that never sees light, like the pitch-black river going over rocks.



Knott was ahead of his time. Even today, helical mixers are used in a number of industries and applications, from mixing drywall mud to the mixing of components when squeezing a tube of epoxy glue. There are now a number of patents on helical mixers for blood products.

A better cuvette – Rivers and clay

Not being an engineer by trade, the challenge to get turbulation into a cuvette was a big unknown. I was working in an upper spare room in our house that would have been part of the attic if not remodeled. It was spacious and quiet. It was the beginning ground area for my research into UBI and the parts area where I could experiment.

Knott's intuition and observation that it did not take much of a blood film to stop light was spot-on correct. It was

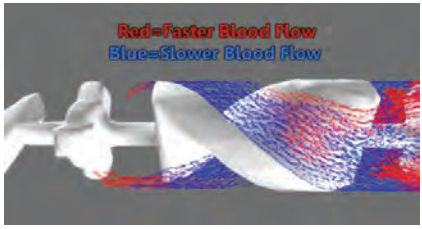
not until 1990 that these measurements were collected by a Russian UBI researcher. One-half the width of a human hair was all that it took to block the light from further penetration.

After discussion with some flow experts at MSU – Michigan State University, it became clear that what Knott did with his "tortuous chamber" was correct and what modern UBI machines did with straight tube flow was inadequate.

I approached it as simply as possible. Think of a river, and I want to move the water's flow to the surface. I got a one-inch plastic tube and started molding clay in different shapes. Each day I would think about it more and change the shapes. It was then that I contracted with a bright engineer who needed some weekend work. Through the internet, we shaped and reshaped what would eventually become the Turbo 180 insert. He would send me a 3-D video of what he was doing, and I would comment, and he would go back to the drawing board. Helical Mixers with a speed-pulsing hub was the result of 5 months of tweaking.

Turbulation Analysis by an Expert:

After examining all of the available styles of current UBI cuvettes, he had this to say:



"The Turbo 180 seems to embody the best of classic contemporary fluid mixing and flow. Motionless mixers [split-helix flow splitters] generate a very little pressure drop, so flow rate is unimpeded.

The use of 15 mixing elements in the Turbo 180 imply a 33,000:1 mix factor, so the already thinned fluid really gets fully randomized and exposed to the external light. The tight fit of the insert to the walls guarantees actual positive displacement flow, so there is similar exposure time of all the fluid. No bypass or channeling can occur, which will happen in the aforementioned alternate systems."

The Turbo 180 design is the only model that has a gentle, precise, total light exposure and mixing. Alternate products appear to have major defects relative to this goal. The helical mixers "splash" the blood against the inner glass surface. Just think of what happens on a rollercoaster as you take a turn. All of the centrifugal force is contained by the glass tube, and it does a great job of eliminating "film."

It seems that this critical issue has been overcome. Emmet Knott would applaud the design that allows for maximum light exposure and thorough mixing. Although Emmet Knott's tortuous passageway worked, an even better tortuous passageway has been designed.

A Patent – "Don't never give up"

Bob would often shout in our church, "Don't never give up." Meet him in the hallway – "Don't never give up." See him in the bathroom – "Don't never give up. It was hard not to hear this statement said to you whenever you met Bob. Sure, it is a double negative, but we all knew what he meant. Although in his 50s, Bob walked with difficulty and haltingly with a walker. His face was somewhat disfigured, and his legs and arms did not work right.

At the age of 14, he figured that life was to be fully lived on a motorcycle. He did not care what his mom said nor that

he was too young. The ensuing crash changed his life forever. Multiple operations and months in the hospital and now 40 years in the past, his motto was accepted with appreciation – "Don't never give up." He could very well have added – "From someone who knows," but seeing his body, he did not have to say it.

His saying comes to mind when I want to give up on something. I am not so sure that there are not times to "give-up" on a fruitless, frustrating project. One of those projects was the obtaining of a patent for the cuvette. I took a couple of weeks to study all of the patents that were out there regarding anything to do with body fluids and UV light. I have a 3" file folder of them. I tend to like to print things out and read and analyze things. I also made an excel spreadsheet of everything remotely out there that is patented.

The new insert and speed-pulsing hubs allowed a patent to be gained for the cuvette.

Patent # US20130248459A1 - Cuvette apparatus and method [3]

What about Lysing (red blood cell breakage/hemolysis)

Doesn't all of this turbulation break blood cells? Does the light itself break-down blood cells?

Red blood cells have a life of about four months in a healthy adult. RBCs are always being replaced. We replace 200 billion daily – yes, 200 with a B. That also means that 200 billion cells are older, and there is a removal mechanism that is continually occurring. Red blood cells are non-nucleated (no genetic material to damage). They absorb the light of UBI into the dark hemoglobin.

White blood cells have a life span of 13-20 days. Up to 10 billion cells are made each day. White blood cells or leucocytes fight infection. They also produce, transport, and distribute antibodies as a part of the body's immune system. We hear of "low WBC counts." This is when the immune system is compromised, and there is a real danger of being damaged by infection. WBCs are nucleated cells and can be destroyed by UVC light. Since light is only getting to 1.2% of the blood (60cc), and of that light, only 10-20% of the actual cells are affected by the light. White blood cells make up about 1% of what we call "whole blood." It is a minuscule number of WBCs that may be damaged.

Just think of giving blood at the Red Cross. They take 473 ccs of blood from your system, and it is gone. It is almost 10% of your total blood volume. This removal of blood causes an increase of fresh, new, invigorating red blood cells into the system.

How do you find out about lysis in the blood?

1. Are you peeing pink? (called hematuria) This would indicate that an inordinate amount of red blood cells were broken. Usually, this is non-threatening and is temporary. Some cells were broken…no big deal. Now, if this continues, there can be other problems, so most will check with a physician.
2. Haptoglobin testing before and after. This measures hemoglobin that is released into the system after cell lysing. It is much more definitive.

We were concerned with broken blood cells with all of the turbulation, even though peeing pink was really rare in over 500,000 treatments. The testing confirmed our suspicions – yes, there is an increase in cell lysing, but that lysing was insignifi-

cant. The amount of turbulation from the Turbo 180 allows for effective therapy without any real issue in the blood components themselves.

Why is only 1% of the patient's blood now used for therapeutic UBI?

It has been found that exposing a certain percent of a patient's blood to UV light gave good therapeutic effects. From the original Knott machine and protocol named the "Knott technique," 1.5cc/pound was the amount drawn from a patient for UBI treatment. This was in the 1930s and 1950s. Thousands of treatments were accomplished, and many spectacular cures were recorded.

A 200-pound patient would therefore have 300cc of blood removed and passed by the Knot machine light emitter through his special patented cuvette. From the literature, rarely did the blood volume exceed 250cc.

This protocol was used for the Knott machine and has not varied significantly. It is commonly quoted, even today, that 3-5% of the patient's blood is needed for a therapy. The average adult has about 5 liters of blood or 5,000cc. Using 3% equaling 150cc and 5% would be 250cc of blood. That was the standard from 1930 until about 2010.

During that time, UBI usage quieted down in the United States because of a number of issues.

1. There was a negative JAMA report on UBI in 1952. It was an attack on the therapy, and most would say not a valid scientific study.[4]
2. The polio vaccine by Jonas Salk came into being in 1955.
3. Antibiotics were being developed and had great results and a lot of financial muscle.

4. The machine was antiquated, and few put time and energy into developing a good new one.
5. No machine was FDA approved or grandfathered in after FDA's grandfather amendment in 1976.

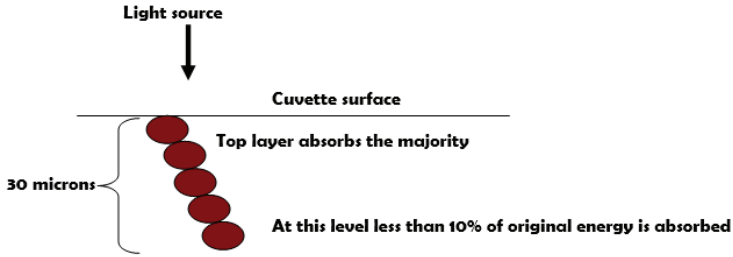
In 2008, a clinic was started to prove the effectiveness of UBI therapy. After purchasing the available UBI units and weeks of research, it was noted that the machines were hampered by different design flaws.

With ideas of what the Knott machine put out for energy, a stronger UBI unit was designed and utilized. This was one of the first machines to use a series of stronger UV bulbs that gave out a more appropriate amount of energy. Also, Levashenko's study on light penetration had major ramifications.

You don't need that much blood!

Why not dilute the blood with saline and save a lot of time and energy? Actually, this method was used in a patent by one of Knott's detractors and direct competitors in 1955.[5] This generated another question, "If the blood is diluted with saline, was all of the light getting absorbed and assimilated into the body?"

As for any cuvette, only the exterior "skin" next to the quartz surface received the light. Ninety-nine percent of the blood never picked up any light. With that revelation, testing was done to discover an appropriate mix of saline and blood. From a small, in-house study, it was determined that the blood could be diluted to 88% saline and 12% blood, and 99.9% of the light was absorbed. This find allowed UBI to go forward using 20% blood and 80% saline. Also, realize that the round cuvette tube that was used was 6,000 microns in the interior diameter (ID), and therefore, no light ever made it into the inner parts of a cuvette.



As another analogy, imagine a sausage log with a thin skin representing the cuvette/blood mix. The vast majority of the inner part never received light energy, and only the outer "skin" was affected. This meant that a dilution technique could be accomplished with full UBI results.

The protocol today is to combine 150-180 cc of saline to 60cc of blood with about 500IU of Heparin. Drip speed and total time is also a factor. A 10ml/minute drip speed will give the blood a consistent amount of energy.

All of the energy that gets through the glass cuvette is picked up by the blood. This was a major shift from the previous 1930's Knott protocol. This new dilution protocol had the following advantages:

Herpes Patient story who used UBI:

"I know how you feel, believe me … I was in pain for so many, many years. I wasted a lot of tears on this virus crying all the time. Herpes was in my daily thoughts … Why me? I kept repeating that to myself and crying alone, but I know now that I will be free of this virus.

I don't get outbreaks as often and they are tiny ones; now this one started and healed within 24 hours! Nothing I have ever tried worked like this UBI therapy. I am so happy."

Mary Ellen

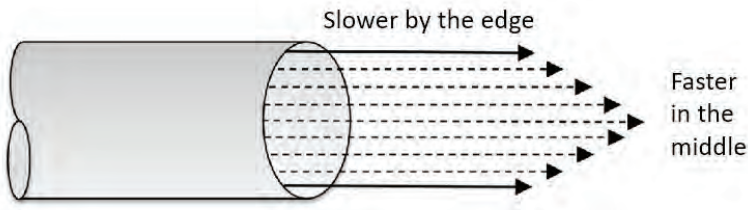
1. The blood flows better with less chance of clotting (less viscous)
2. It will take less time to get the necessary blood from the patient (only 60cc)

3. There is less chance of problems with reinfusion
4. There is a greater chance of more blood getting light as it can move better, not being totally surrounded by just other red blood cells
5. Patients with "thick" blood (hypercoagulable) will have a more manageable amount withdrawn, making the therapy easier
6. Less cost – no more evac bottles! Use a standard 250 ml bag of 0.9% saline, withdraw 60cc of blood, inject it into the bag and simply let it flow back to the patient through the machine

The cuvette is just one factor regarding getting an effective therapy. The machines of the past also needed more energy and better calculations as to what actually was getting through the cuvette to the blood. This is covered in another chapter.

The ultimate improvement was that of the cuvette turbulation design. This has been the most significant change in the history of UBI. There is a video that examines some of the flow potentials of a number of different UBI cuvette designs Cuvette and Blood Turbulation Education.[A]

As with any tube, the surface in contact with the fluid tends to stick along the sides while the rest flows down the middle. This is why a straight tube or flat cuvette without any turbulation is an inferior design.



Regarding the Knott cuvette design, blood would need to be cleaned out of the cuvette, and then a sterilization process occurred. It had to be cleaned because it was reused. Its expense was significant. Certainly, this would be an issue with modern medical practices.

To date, this therapy (machine, cuvette, and protocol) has surpassed 500,000 treatments accomplished in the last 8 years. It is amazing that there have been no major complications or side effects. Tens of thousands of patients have benefitted from these innovations.

A physician who has done thousands of these therapies said, "I would say that upward of 80% of my chronic patients, after a number of treatments, would say that they have been significantly helped."

The older studies attest to what is being seen in clinics all over the United States.[6] UBI and this new protocol works, and it works well.

References

1. Levashenko, G I – "Ultraviolet Blood Irradiation", Biomedical Engineering Vol 33, NO.3 1999 pp 141-143

2. Patents by Knott

3. Sept 1928 - Lester Edblom & Emmet Knott 1,683,877 Means for Treating Blood Stream Infections

4. Jan 1943 - Knott 2,308,516 – Method and Means for Irradiating Blood

5. Jan 1943 - Knott 2,309,124 – Ultraviolet Exposure chamber

6. March 1943 - Knott 2,314,281 - Pumping apparatus

7. United States Patent Application Publication Pub. No.: US 2013/0248459 A1 Lowe Pub. Date: Sep. 26, 2013 CUVETTE APPARATUS AND METHOD

8. Schwartz, Steven O. M.D.; et al., "ULTRAVIOLET IRRADIATION OF BLOOD IN MAN STUDIES OF SIXTY-EIGHT PATIENTS". JAMA. 1952;149(13):1180-1183

9. Patent 2,725,482 Irradiating Apparatus Sidney O. Levinson

10. Robert Jay Rowen, MD "Ultraviolet Blood Irradiation Therapy (Photo-Oxidation) The Cure That Time Forgot" *Int J. Biosocial Med Research Vol. 14(2) 115-32, 1996*

Links

A. https://www.youtube.com/watch?v=DNJwTZW5LPQ

– CHAPTER ELEVEN –

Ehancing UBI with Ozone

Vasogen's $225 Million Proof

Even though ozone is not a part of this book, there is a reason to include it here as a therapy; that reason is Vasogen.

It is hard for a layperson to understand the significance of what this company accomplished. A few years ago, I talked to Dr. Garry Gordon (founding father of ACAM – American College for the Advancement of Medicine) about finding thousands of pages of Vasogen's patents, and he equated it to him finding chelation information 30 years ago. He has been known for years as "the father of chelation."

It was a treasure house if you knew how to open the door. After over 100 hours of study and correlation of information, I had the eureka moment. I state it here…

The Best Medical News for Ozone and UBI is that they should be used together

Simply put, this 1990s biotech company spent a lot of money showing that ozone and UBI together are synergistic. William Campbell Douglass, in his book "Into the Light," also mentioned the usage of UBI and another oxygen donor, hydrogen peroxide H2O2, as synergistic with UBI.

"Activated oxygen may have the same effect as activated photosensitive compounds. The excited singlet state oxygen molecule is much more reactive than ordinary oxygen and is known to react with membrane components…" *Douglass,William C. (1996)"Into the Light," 2nd ed. Atlanta: Second Opinion*

This certainly could explain some of the synergies of UBI and ozone. UBI should not always be used with ozone and vice versa. Each of the therapies has its strong point. Commonly though, when an IV UBI is being accomplished in a clinic, it is extremely easy and simple to add ozone to the blood. This synergy was shown in several studies.

I am on safe ground stating that a lot of physicians who just do MAHT (major autohemotherapy) with ozone and blood are truly missing out. Thousands of therapies each year, along with the attending physicians, attest to the extreme power of joint therapy. It is documented in the clinics, by the patients, and also with the data that Vasogen collected.

The Canadian biotech firm Vasogen started using ozone and UV light on blood in the 1990s. They also added heat as a stressor, but a couple of the studies showed that it was not helpful. Ozone and UBI together were very positive.

They conducted studies on mice, rats, dogs, and humans. They not only tested a host of blood and immune system parameters but also focused on different disorders. They had put together a machine called the Celecade. It required the use of a patented container. They also filed 24 process patents, which allowed us to see the details of what was being tested and the results.

Vasogen was able to raise investor capital in excess of $ 225 million (this may be a low figure). They accumulated over 24 process patents, published numerous studies, and left for us an impressive stack of over 60 studies accomplished over an 11-year period. Scores of physicians from prestigious centers such as Sinai Hospital, Cleveland Clinic, Baylor University, St. Bartholomew's Hospital, London, Centre hospitalier de l'Université de Montréal, Montreal, Quebec, and over 170 other heart clinics participated in the studies. They validate O3UV as a substantial medical therapy!

Unfortunately, for Vasogen investors, their Phase III FDA trials failed to prove significant. They conducted a 2,414-patient study on Class II thru IV chronic heart failure (CHF) patients. They administered a total of 8 treatments per patient with only 10cc of blood; they returned as an intramuscular gluteal injection. In the end,

VSGN on stock exchange

Raised over $ 225 million

Had over 100 employees

Over 60 laboratory and clinical studies over an 8-year period

Secured over 24 patents on medical procedures with O3UV

Passed 2 Phase II FDA trials – Chronic heart failure and Peripheral Vascular Disorder

the study results did not show statistical significance. The stock tumbled from over $16 to less than $ .25/share. In Class II CHF patients, the therapy reduced deaths and hospitalizations by 39%, but most do not go to a hospital as the symptoms are mild. This was not enough to see the company recover.

UBI and Ozone Proven Synergistic for the Following Disorders

- Graft vs. Host
- Many forms of Inflammation
- Growth Factor TGF-β_1
- Vasospastic Disorders
- Endothelin-Related Disorders
- Blood Brain Barrier Modulation
- Blood Platelet Inhibition
- Auto Immune Disorders
- Pre-surgery Preconditioning
- Increasing Nitric Oxide (vasodilation)
- Traumatic Pain Disorder (RSD)
- MS
- Atherosclerosis
- Chronic Heart Failure
- Lupus
- Rheumatoid Arthritis
- Traumatic Pain Syndrome
- Raynaud's
- Cluster Headaches
- Lyme
- Chronic Lymphocytic leukemia
- Skin Ulcers
- Scleroderma
- Irritable Bowel
- Allergic reactions
- Myasthenia Gravis
- Chronic Fatigue
- Peripheral Vascular Disease

O_3UV may not be perfect for CHF, but Vasogen's 60-plus studies are invaluable. These studies gave proof of the medical ef-

ficacy and action of O_3UV. The similarities allow us to carefully but confidently accept their work as a major piece in understanding and validating O_3UV therapy.

Neither therapy, ozone nor UBI, has enjoyed full acceptance in the United States, although there are an estimated 1,000 physicians in the US using either UBI or ozone or both. Although used in a way different from Vasogen, the two are a very powerful combination therapy. It is actually much more powerful than the Vasogen combination as vastly larger amounts of both ozone and UV light are used in the IV therapy. It is a blessing that they laid out such a solid groundwork.

These 60 process patents had:

- **Abstract** – Summary of what the therapy would do
- **Claims and Drawing Sheets** – showing data
- **Field of the Invention** – lists disorders
- **Background of the Invention** – What the problem has been
- **Prior Art**
- **Summary of the Invention** – Discusses the action against the Disorder
- **Description of the Preferred Embodiments** – Biochemistry and how the procedure happens
- **Examples** – Actual studies that correspond to the Drawing sheets

This is what science looks for - validation of results. These studies were not an individual clinical observation but thousands of patients in controlled trials.

One Published Paper is listed to the right.

So, why did it fail?

Too much ozone in too little blood and too little UV light spread over too long of a period between therapies. Velio

Bocci, considered the world's leading researcher on ozone therapy until his death in 2019, wrote about the Vasogen experiments.

"The failure of the ACCLAIM ("Vasogen") trial is due to irrational technology."

Dr. Bocci stated that "they excessively oxidized the blood and that it did not procure any advantage in chronic heart failure." He was right. It would seem like an inexcusable mistake not to consult with the leading ozone experts on this therapy before raising millions of dollars. (Velio Bocci, International Journal of Cardiology LETTER TO THE EDITOR | VOLUME 139, ISSUE 3, P304-305, MARCH 18, 2010)

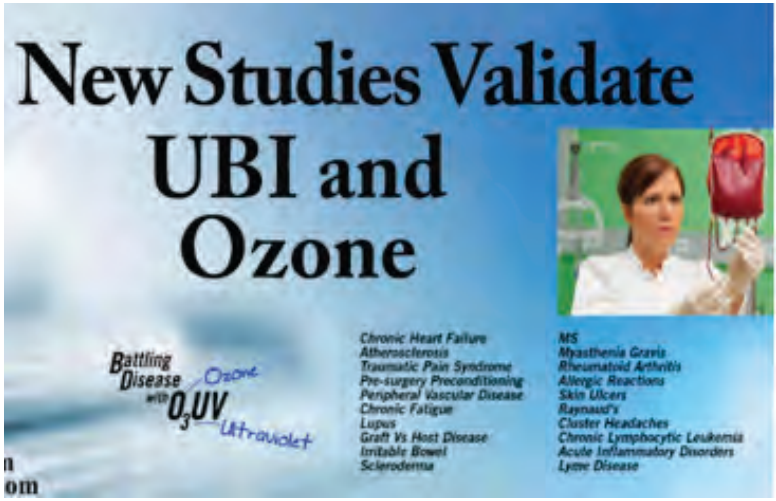
Bocci did not comment on the studies that led to the clinical trials. He missed the idea that UBI and ozone together would be a positive therapy. The evidence is in. For a number of disorders, ozone and UBI are a great combo.

When not to add ozone to UBI

That is truly some of the art of practicing medicine. Often times, I have had physicians say that a patient does not do well with ozone. That can be because the system is already oxidatively stressed, and more stress (ozone) is not helping. In that case, UBI alone will work better. UBI seems to have a very little negative reaction with any patient. Still, it is always better for patients that are weak or fragile to go low – go slow and do a one-half therapy.

Also, UBI alone has a great effect on autoimmune disorders without ozone. There are some practitioners who prefer this to the combination.

Would you like to read about this 393-page report [A] that I put together?



- Cover page of explanation – 2-page synopsis
- Patents in Order - short synopsis of each patent starting with the oldest
- Significance of each study for O3UV
- Understanding the actions of therapy – layman's look at disorders treated by O3UV
- Full description of the Patents…they contain the studies and Mechanism Actions
- A brief comment on Vasogen from the news

For most, this short chapter may be enough, but there is also a YouTube of 20 minutes in length that explains it in a PowerPoint presentation and audio type of format. In YouTube, type in Ozone and UBI together.[B]

This finding should have a tremendous impact on every physician who looks to use ozone and UBI together. You now have some of the science at hand.

Links

A. https://www.drsozone.com/wp-content/uploads/2018/11/Vasogen-UBI-and-Ozone-together-final.pdf

B. https://www.youtube.com/watch?v=716-81iq9is

– CHAPTER TWELVE –

Legalities for UBI in the US

In reference to the following material or any material in this book, No Legal Advice is intended. Information is supplied to the best of our knowledge, and we disclaim all liability in respect to actions ***taken*** or ***not taken*** based on any or all of the information included herein. The information is for educational purposes.

The above paragraph is to be taken seriously. Liability is something that every physician, trainer, and promoter of a product or even a website must address.

Thumbing your nose at the FDA

Carl Schleicher was an intriguing man. He was involved with a number of ideas that showed his eccentric nature. He was also a man who loved doing UBI. He was one of the authors of *UBI: A History and Guide to Clinical Applications*. He designed

his own UBI machine and had it patented in 1998. He claimed that it was an updated Knott machine and believed that it should be legally in use.

He began a clinic earlier, and he and three others started treating patients. Since they were in Silver Springs, Maryland, the home of FDA, they decided to market it in a unique way. They put paper flyers on the windshields of the FDA's employee parking lot, inviting them to get a UBI. It took a bit of time, but in 1997 U.S. Marshalls seized machines at the clinic. The charge was that of manufacturing and selling a medical device that was not approved. In 1999 Carl Schleicher died, but his partners were charged and fined.

"Ultraviolet Blood Irradiation Device Used to Treat HIV/AIDS and Hepatitis Firm President Sentenced [A] for National and International Promotion of Fraudulent Medical Device On October 23, 2001"

So often in training, a hand goes up, and someone asks a critical question**. "What about the legalities"?** Of course, that can mean a lot of things. The last place that you want to end up is in a court of law defending your use of UBI or some other form of complementary/alternative medicine.

In my 12 years of training and seeing physicians use UBI, I have yet to see a court case involving its use. Part of it is that it has so few side effects. It is tremendously benign. But that will not stop someone from suing.

Here are some weird lawsuits:

- California woman sued jellybean maker as she was shocked that it contained sugar
- Man sues date for being on her phone while watching a theatre movie
- Customers disappointed that Red Bull did not energize them

- Same price for a burger with and without the cheese
- Busch sued because drinking beer does not make fantasies come true

You don't want to be in a lawsuit!

Tips from the experts – Simply put, patients do not sue doctors they like and trust.

- Express empathy for the patient's pain and suffering.
- If you are not a good communicator, assign someone in the office who really shines at this.
- Do not hesitate to provide the patient with all known facts. Remember, patients have a need and a right to know about their medical conditions and treatments.
- Studies underscore the well-known principle that good communication is the cornerstone of the physician-patient relationship. Take time.
- Explain any potential complication to the patient as part of the **informed consent**.
- Describe to the patient symptoms to be aware of after the procedure that might indicate that a complication has occurred.
- Tell the patient if a problem occurs.
- If there is a problem, be honest. Cover-ups can lead to lawsuits.
- Be on the side of giving – possibly a refund or more.

Lawsuits take a lot of time, money and levy an emotional toll. Be proactive, enact clinic policies for your staff and be an example.

The **FDA** is one entity that has jurisdiction over medical devices, along with a host of other things.

They look primarily at the manufacturer of a device, drug, or product and the claims that are being made. If a product makes a medical claim or can be seen as being sold as a medical device, they have the power to regulate the company. If there is a violation, they can impose fines and even jail sentences. They have reportedly been sent armed agents into a company to seize their stock of questionable devices and equipment.

One thing to remember is that the FDA goes after manufacturers, not physicians.

What are the licensing boards in the US?

State Boards - From a physician's perspective, the FDA is not the concern. The more applicable jurisdiction is that of your state boards. Who gives you a license to practice medicine? They are the ones that can take a license away.

A licensed physician, M.D., and D.O. can practice medicine, including alternative medicine. There may be legal questions regarding "standard of care" that come in conflict with conventional medicine licensing boards, i.e., If you tell a patient not to get radiation or chemo treatment for cancer, then you can certainly get into trouble with your conventional medical board.

Homeopathic Boards - In the past, some physicians have opted to move to a state that has a homeopathic board and get licensed under them. "It is completely legal for medical doctors to practice homeopathy anywhere in the U.S. At present, three states (**Connecticut, Arizona, and Nevada)** have homeopathic medical boards that license medical doctors who specialize in homeopathy. The primary reason that homeopathic physicians created these homeopathic medical boards was so that their practice would be judged by their own peers, not by conventional doctors." From homeopathic.com

Naturopathic Boards – Currently, 22 states,[B] five Canadian provinces, the District of Columbia, and the US territories of Puerto Rico and the US Virgin Islands all have laws regulating naturopathic doctors (NDs). If you are a licensed ND in your state, this allows "peers" to review your practice in the event of a dispute. Scope of practice regulations varies among licensed/regulated states and provinces, as do the parameters and restrictions for practitioners located in as yet unlicensed venues.

Nurse Practitioners – Certain states allow nurse practitioners to meet with clients, advise, and order drugs. This is a changing landscape, and each practitioner must know their limitations and legalities of their state.

Other Considerations

Practicing medicine outside of your area of licensure. This can happen. A well-known alternative podiatrist was using an alternative to cure Lyme. It caused problems, and he went to court over it.

Medicaid Raid – Medicaid is looking into many health clinics that submit false claims to Medicare. This kind of fraud is actively prosecuted. The one that I heard of started as a disgruntled employee claimed that the clinic was using alternative medicine and billing Medicare. The clinic was raided and shut down, pending a court case. Were they guilty? It will not be known until the hearing is complete.

Informed Consent - This sometimes acts as part of your office insurance policy. It is also a highly recommended part of medicine. *"It is the process by which a patient learns about and understands the purpose, benefits, and potential risks of a medical or surgical intervention and then agrees to receive the treatment."*

An Informed Consent is not making a physician bullet-proof, you are still responsible, but a patient that participates in getting therapies in a clinic needs to know about that therapy.

- Is it dangerous?
- What are the contraindications? (when not to use it)
- What might be the side effects?
- What are the benefits and the purpose of using it?
- What if it does not help?

Binding Arbitration – It is a clause in your informed consent where the patient agrees to binding arbitration as a first step of settling a dispute. From my understanding, a patient can still bring suit if they do not agree with the arbitration settlement, but since the rules of arbitration allow for a lot of extraneous information, most often, a court will not entertain a lawsuit as easily. The arbitrators would need to be alternative medicine knowledgeable, not just standard of care.

If you are in a clinic and using UBI, you need to have an informed consent policy and form. If you don't have one, contact your trainer.

If you did not know…There is No LBI or UBI machine nor cuvette that is FDA cleared, registered, or approved for use outside of an IRB.

There are some manufacturers that claim a UBI machine or cuvette is FDA registered. Using the same cuvette again for another patient or even the same patient is definitely not modern medicine. It is a lawsuit waiting to happen, in my opinion.

"FDA-Cleared" vs. "FDA-Approved"

Clearance requests are for medical devices that prove they are "substantially equivalent" to the predicate devices al-

ready on the market. Approved requests are for items that are new or substantially different and need to demonstrate "safety and efficacy," for example, it may be inspected for safety in case of new toxic hazards.

Our focus is on medical devices. Although it has been said that the Knott device was grandfathered into acceptance by the FDA in 1976, the idea has issues. Although the updated Knott machine by Energex was a remake of the old Knott machine, it still had very different components and was new in many ways. To my knowledge, this is the only US machine to have gone through FDA trials,[C] which still did not make it FDA approved. According to their website,[D] it is not for sale in the US.

Can a UV purifier be used by a licensed physician for UBI? According to the FDA - yes.

Read this letter of request from a few years ago.

CFR – Code of Federal Regulations Title 21

From: Bob Peterson
Sent: Monday, November 23, 2009 7:06 PM
To: G C S. FDA
Subject: machine

I am interested in your opinion. There is a certain UV purifier on a website in Canada that I think would work for a practice called Ultraviolet Blood Irradiation. Although not sold as a UBI machine it is available on the web and I am very intrigued by this medical process...it has been recommended by other physicians.

One site I found on it is http://www.healthsalon.org/251/ubi-ubv- According to a book by Ken Dillion - Healing Photons there are over 100 published studies on this. There is also mentioned a section in the FDA code - CFR title 21 807.65 (d) that I was told would make this allowable if I use it in my clinic for my patients.

The modification would entail medical applications like setting up a flow device control, sterilized medical IV tubing, needles, evacuated medical container, etc.

Would you please give comment?

FDA Response from FDA staff CDRH

You are correct that as a licensed practitioner **you are exempted from the medical device requirements** as long as the item is used solely in your practice. As soon as you expand beyond your own practice the exemption provided by 21 CFR 807.65(d) would no longer apply

Sec. 807.65 Exemptions for device establishments.

(d) Licensed practitioners, including physicians, dentists, and optometrists, who manufacture or otherwise alter devices solely for use in their practice.

CE Medical Devices – European Union

Another alternative for devices is to get a CE medical device certification that applies to European Union countries. This is an easier and less expensive process than the US FDA. Their approach is more about safety and then letting the physicians/hospitals decide if there is efficacy.

Besides the German units, there is a US-based company that has gone through the CE medical device process. www.ultraluxuv.com. This unit is larger and more powerful than the European counterparts and is available internationally but not in the US.

Liability - Can a patient hold a naturopathic or homeopathic doctor accountable for medical malpractice the same way a normal doctor is held accountable? The simple answer is yes. "Liability could also arise when a naturopathic doctor fails to refer a patient for other appropriate care or who attempts to treat a patient for a condition which exceeds the scope of his or her expertise."[E]

Operating in the world of alternative medicine is a bold step. As a physician, they have crossed the line that says, just order tests, write prescriptions, or make referrals to other doctors of specialty. These dedicated souls have put themselves in harms' way to get at the root cause of a disorder. Many times, they have patients that have gone the conventional and drug route and yet still are not helped. Hats off to these heroes.

Links

A. https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/enforcement-story-archive/office-criminal-investigation-continued-2001

B. https://aanmc.org/resources/licensure/

C. https://www.tandfonline.com/doi/full/10.1080/2331205X.2019.1614286

D. http://avicure.com/immunomodulator.html

E. https://www.sholljanlaw.com/blog/2015/10/can-i-hold-my-naturopathic-doctor-accountable-for-malpractice/

Regarding the chapters, studies and references that follow:

Note # 1: Of the following studies that are Russian or German, I am indebted to Ken Dillon and his previous research. It is noted that from the original authors, some studies lack rigor and detail. They are provided to give additional insight into UBI/LBI therapy even as some questions go unanswered.

Note # 2 – Is UBI a panacea of sorts? No. In some disorders, UBI 's effectiveness is known to be limited. In other cases, e.g., ulcers, effective and relatively inexpensive treatments already exist, so there is little need even to investigate using UBI. The following chapters will give insight into both the scope and effectiveness of select disorders.

– CHAPTER THIRTEEN –

Cardio and Vascular Disorders

In his 2015 published paper, Dr. Mikhaylov purports that LBI usage leads to "lowering the incidence and number of vascular diseases, and indirectly to the reduction of the number of diseases in other organs and even systemically, thus helping to prolong the lifespan."

VA Mikhaylov, The use of Intravenous Laser Blood Irradiation (ILBI) at 630–640 nm to prevent vascular diseases and to increase life expectancy. Laser Ther. 2015 Mar 31; 24(1): 15–26 Heart Disease, including vascular disorders, lead as the cause of death in the US. UBI has been used for 75 years successfully to diminish these serious issues. As stated in the above paper, ultraviolet light therapy improves or influences positively:

- Oxygen absorption
- Immune system
- Function of vascular system and blood plasma
- The vascular wall
- The exchange processes
- The neuroendocrine system

These improvements not only can extend life but decrease pain and the consequences of vascular disorders.

Areas Covered:

Heart Issues

1. Severe Ischemic Heart Disease
2. Severe Heart Attack
3. Microcirculation Improvement
4. Heart Attack Pain Reduction
5. Acute coronary occlusion and congestive heart failure.
6. Leningrad Studies
7. Atherosclerosis of the heart and lower extremities
8. **Severe Ischemic heart disease**
9. Stenocardia

Peripheral Vascular Disease

1. Thrombophlebitis
2. Raynaud's Syndrome

Heart Issues

1. Severe Ischemic Heart Disease

This study consisted of 70 males, ranging from 32- to 79-years-old. All patients suffered from angina pectoris; 56 had a heart attack prior to the study. These men had already failed to recover us-

Heart Problems (Tachycardia)

"My heart used to race up to 280 bpm and then I would pass out. This happened 3-4 times per day. Drugs worked but made me drowsy. With only 4 treatments of UBI, my heart felt better, I was taken off of meds and it has been 6 months without an episode."

Ashley, 22-year-old nurse

ing intensive drug therapy. Seven treatments of UBI were given with no toxic effects noted. All of the patients were observed for 2-16 months.

- All patients were able to reduce nitroglycerin
- Stenocardia was reduced
- 46 were able to walk 1 km per day
- 31 of 39 who had jobs were able to return to work
- 7 patients died – 6 were over 60 years old, 1 over 70

The results were assessed "outstanding," considering the serious condition of the patients. Improvement was attributed to improvements in microcirculation, vasodilation, and oxygenation of the blood. There was also an effect of humoral immunity, lessening the postinfarct cardiosclerosis.

Ganelina, I.E.et al. "For the Therapy of Severe Stenocardias by means of UBI and for some mechanisms of action of this therapy," Folia Haematologicia 109 (1982), pp.470 – 482

Severe Heart Attacks

Intercardial LBI was administered during severe heart attacks. Thirty patients received five to seven treatments; twenty received drug treatment. With the LBI stabilizing effect, power analgesic effect (33% pain was totally suppressed and 22% significantly reduced), narcotics were reduced to 1/8 of normal levels, and analgesics to 1/3. After 2-3 hours, LBI patients with intense pain were only 15%, while with drugs, the level was 45%. There were no complications with the LBI therapy.

Microcirculation improvement

Also, marked improvement in rheological properties of the blood. Viscosity dropped 30%, platelet aggregation by 25%, fibrinogen level by 20%, leading to a 35% reduction in gener-

al peripheral resistance and normalization of diastolic pressure. Stabilization of hemodynamic levels and more rapid resolution of the heart attack occurred. This was maintained for the six months of follow-up.

Togaibaev, A.A. and Alimzhanov, T.S., "Intravascular LBI in Combination Intensive Therapy of Patients with Myocardial Infarction"[Russian] Anesteziologiaa I Reanimatologiia (1993), No 5, pp 45-47

Heart Attack Pain Reduction

UBI was used within 6 hours of a heart attack. Twenty-four patients received drugs and UBI – 21 registered analgesic effect; 1 patient died. Following UBI incidents of extrasystole decreased sharply and then tended to increase after 12-24 hours, necessitating another UBI treatment. No increase of arrhythmia occurred; in fact, UBI had an anti-arrhythmic effect, possibly because of the anti-ischemic action.

Sirenko,Yu N., I.E. Malinovskaya, and S.S. Krasnitskii (1990),"On the Treatment of Patients with Severe Coronary Insufficiency with Ultraviolet Blood Irradiation [Russian],"Vrachenbnoe Delo 10:9-11

2. Acute coronary occlusion and congestive heart failure.

Unpublished report, but observations and case studies recorded the positive effects of UBI on acute coronary occlusion and congestive heart failure. Quick use of UBI led to improved microcirculation and reduced inflammation of the heart muscle, reduced pain, cyanosis, and dyspnea. UBI, given every few days, usually led to overall improvement even with those who appeared to be terminal.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). "Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997", Silver Spring, Maryland: Foundation for Blood Irradiation.

Viral Cardiomyopathy

> *"Just a couple of months ago, I had problems just walking around the mall. I would have to stop four times and rest just to go two blocks. I was told that 1/3 of patients having what I have get better, 1/3 stay the same, and 1/3 get worse, and there was nothing more that I could do. I had two UBI treatments at the clinic, and my, what a difference. I had a conference in Minneapolis last week and walked over two miles in cold weather (something that I could not do). I not only felt great, but I am also full of energy."*
>
> *Lenny*

3. Leningrad Studies

There are multiple miscellaneous studies in the collection by Ganelina:

Atherosclerosis of the heart and lower extremities

Beneficial Effects of UBI

- Improved rheological characteristics of the blood
- Improved microcirculation
- Increased oxygenation of the blood
- Raised levels of cholesterol and beta-lipoproteins

They then studied the impact of UBI on the patient's enzymes**.** A control group of 13 healthy males and 54 heart patients were observed in the study. Out of these patients, 25 had ischemic heart disease and 29 ischemic disease of the lower

limbs. During the study, 15 heart and 11 lower limb patients received UBI (5 to 10 sessions). It was documented that 12 of the 15 heart patients and 8 of the 11 lower limb patients benefited substantially. Best results from younger and earlier stage patients.

Severe Ischemic heart disease

Severe ischemic heart disease was present in 145 males. Patients received 5 to 10 treatments of UBI along with standard drugs. Out of 145, 137 had a favorable response to UBI, and overall condition improved. Fewer analgesics or nitroglycerin tablets were needed. It was documented that 92 patients had fewer incidents of stenocardia and could walk 1,000 meters per day. The other 45 saw moderate improvement. Researchers felt UBI regularized biochemical substances and function in the body. Dozens of other studies are listed in the above collection.

Ganelina, I.E.et al."Mechanisms of the Influence of Blood Irradiated with Ultraviolet Rays on the Organisms of Humans and Animals", Leningrad Nauka 1986

Stenocardia

Another study consisted of 45 unstable stenocardia patients. Out of these patients, 26 were diagnosed with post-infarction cardiosclerosis and were observed against a control group. After 5 to 7 treatments, all 45 patients underwent improvement in general condition, less weakness, reduced headaches and insomnia, reduced nitrates, and other listed benefits.

Izhevsk,"Use of Low-Intensity lasers in Experimental and Clinical Medicine"[Russian] (1994) pp 63-64

Peripheral Vascular Disease

Early studies by Miley listed the treatments of disorders caused by vascular blockage in the legs and arms. In some cases, UBI reversed the need for amputation of gangrenous toes and feet by reversing hopeless swelling and cyanosis.

1. Thrombophlebitis

Thromboangiitis obliterans - Two UBI treatments were used for a man who had two gangrenous toes removed. The patient convalesced and was able to return to work. He was undergoing treatment with UBI on a quarterly basis. Upon stopping treatment, thromboangiitis obliterans (Buerger's disease) appeared again. Two more UBI treatments were given again, and the pain disappeared.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997. Silver Spring, Maryland: Foundation for Blood Irradiation.

Thirteen cases of acute thrombophlebitis were treated at the Clinic of Hahnemann Medical College and Hospital in Philadelphia. The first 5 cases were treated with drugs and therapy; these failed and didn't produce positive results. UBI treatments were then administered, and first pain disappeared, then fever, and lastly edema in 12 of the 13 patients.

Miley, G. P. (1943). "The Control of Acute Thrombophlebitis with Ultraviolet Blood Irradiation Therapy," American Journal of Surgery 60:3:354-60

Arterial Disease of the legs - Impressive Results - Double-Blind Study of 50 patients in Fontaine Stage II of arterial disease.

1. Group 1–16 weeks of drug therapy distance walking improved 160%
2. Group 2–4 - 6 weeks inpatient therapy increased 100%
3. Group 3– 6-day placebo with UBI (no light) 90% improvement
4. Group 4–6-day real UBI treatment – 360% improvement

Results confirmed in 18 subsequent trials and reports. Smoking and diabetes patients were more difficult and required more UBI treatments.

Frick, G. (1989). Fibel der Ultrviolettbestrahlung des Blutes. Ernst-Moritz-Arndt-Universitaet Greifswald

Claudication - Results with UBI are markedly superior to a standard drug regime. Drugs for intermittent claudication, like pentoxifylline (Trental), only show a 19-65% increase in walking distance. Whereas in the above Frick study, the increase with UBI was 360%

Young, J., Olin, J. R. Peripheral Vascular Disease. 2nd ed St Louis: Mosby 1996, pp. 377-378

2. Raynaud's Syndrome

The following considers LBI treatment of 28 patients. Another group of 30 patients, acting as controls in the study, receive standard treatment.

LBI Therapy	**Standard Drug Therapy**
43% significant improvement	33% significant improvement
50% benefited	16.7% benefited
7% no response	50% no response
1% worsened	

Izhevsk,"Use of Low-Intensity lasers in Experimental and Clinical Medicine [Russian]", (1994) pp 63-64

– CHAPTER FOURTEEN –

Bacterial Infections

The Best Anti-Infection Tool Ever Used

There is a lot of information on using complementary/alternative medicine therapies to combat infections. There is the proven IV high vitamin C therapy, herbal formulas like Biocidin®, monolaurin, hyperthermia therapy, colloidal silver, MCTs (coconut oil), the list goes on.

I would contend that there is nothing quite like UBI. Its direct effect on the immune system quells the most stubborn infections. It is not a maybe; it is solidly proven. Read the studies below and then decide. There are about 40 studies from the 1940s right up to 2002 that all tout effective, positive results with infections. Below are just a few:

Areas Covered

1. Handling Streptococcal and Staph Infections
2. E Coli in the 1940s
3. Hospital Acquired Infections - Nosocomial
4. Superbugs affected by UBI

5. Chronic Bone Infection - Osteomyelitis
6. Infants and Children with Pneumonia
7. Help with Infection after Brain Injury
8. Mixture of Microbe Infections
9. Meningitis
10. Typhoid
11. Lyme Disease

Harvard researchers comment on UBI handling Superbugs

"We would like to propose that UBI be reconsidered and reinvestigated as a treatment for systemic infections caused by multidrug-resistant Gram-positive and Gram-negative bacteria in patients who are running out (or who have already run out) of options. Patients at risk of death from sepsis could also be considered as candidates for UBI."

1. Handling Streptococcal and Staph Infections

Streptococcal infections - Strep Infections have been successfully treated. Strep throat, rheumatic fever, scarlet fever, acute tonsillitis, acute otitis media, and erysipelas all are very responsive to UBI treatment.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). *Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997*. Silver Spring, Maryland: Foundation for Blood Irradiation.

Staphylococcus Albus and Staphylococcus Aureus - For those using just UBI as a treatment, 8 out of 9 ended with complete recovery. The one case also had bladder carcino-

ma. The authors concluded that UBI was an effective monotherapy against staphylococcemia.

Miley, G.P. (1944). "Efficacy of Ultraviolet Blood Irradiation Therapy in the Control of Staphylococcemias," American Journal of Surgery 64:3:313-322

Staph Septicemia - Validates the case report of a young student nurse who recovered rather dramatically from hemolytic staphylococcus aureus septicemia following two UBI therapies.

Miley, G. P. (1943),"Disappearance of hemolytic staphs aureus septicemia following UBI therapy Knott Technic", Am. J. Surg. 62, P241-245, 1943

2. E Coli in the 1940s

Escherichia Coli - There were seven cases of Escherichia coli septicemia, a very dangerous condition in the 1940s. Five were cured, and the sixth died of myocardial degeneration but had a sterile bloodstream. The seventh died but had a different Staph infection.

Rebbeck, E.W. (1943). "Ultraviolet Blood Irradiation in the Treatment of Escherichia Coli Septicemia," Archives of Physical Therapy 24:158-67 and 176

3. Hospital Acquired Infections - Nosocomial

Hospital Infections - According to the CDC, the most common pathogens that cause nosocomial (hospital-acquired) infections are Staphylococcus aureus, Pseudomonas aeruginosa, and E. coli. Some of the common nosocomial in-

fections are urinary tract infections, respiratory pneumonia, surgical site wound infections, bacteremia, gastrointestinal, and skin infections.

Approximately 2 million patients suffer from these infections in the US, and nearly 90,000 are estimated to die. The overall direct cost of HAIs to hospitals ranges from $28 billion to $45 billion. UBI can treat all of these infections.

Alberto Boretti, et al. "Use of Ultraviolet Blood Irradiation Against Viral Infections", Clinical Reviews in Allergy & Immunology, 07 October 2020

4. Superbugs affected by UBI

Superbugs – ESKAPE (*Enterococcus*, *S. aureus*, *K. pneumoniae*, *A. baumannii*, *P. aeruginosa*, and *E. coli)* and other Bacterial Infections: Pneumonia, Wound Infections, Septicemia, Peritonitis, Glanders, Lyme disease, and Tetanus should all be effectively treated with UBI. There is no evidence that micro-organisms can develop resistance.

Hamblin, M.R. Ultraviolet Irradiation of Blood: "The Cure That Time Forgot?", Adv Exp Med Biol. 2017; 996: 295–309.

5. Chronic Bone Infection

Chronic Osteomyelitis - 55 cases were treated with 1-3 treatments. They found that LBI helped to restore a balance among immune cells and considered that this contributed to good outcomes in most cases of subsequent surgery.

Gostishchev, V.K. et al. "Effects of Intravascular LBI on the Immune System

of Patients with Chronic Osteomyelitis [Russian],"Khirurgiia (1991), No 9, pp 98-101

6. Infants and Children with Pneumonia

Severe Pneumonia in Infants and Children - UBI treatments were used on infants and children up to 3-years-old who were suffering from acute pneumonia and pleural infections. Forty patients showed that they improved more rapidly than the 25 in historical medical applications as a control.

Kalinlin, V.N. et al. "Autotransfusion of Blood treated by Ultraviolet Irradiation in Destructive Pneumonias in Very Young Children [Russian]," Khirurgia (1991) Aug 8, pp 14-20

Acute Pneumonia in Children - Another study of 56 children under one with acute pneumonia as compared to 45 in a control group with standard drugs showed temperatures and rapid heartbeats dropped faster, peripheral blood and phagocytosis showed more improvements, and hospital stays were reduced by 24% compared to controls.

Shamsiev, F.S.et al., "The efficacy of UBI in Combination Therapy of Acute Pneumonias in Young Children [Russian]," Pediatriia 91990), No 11, p 112

7. Help with Infection after Brain Injury

Pneumonia in conjunction with severe skull and brain injuries - With 6-8 sessions of UBI plus endolymphatic antibiotics significantly raised both the number of T cells

and levels of IgA and IgM over those 25 in a control group using standard antibiotics.

Kibirev, A.B. et al., "UBI and Endolymphatic Antibiotic Therapy in the Treatment of Pneumonia in Patients with Skull-Brain trauma [Russian]," Zhurnal VoprosyNeiokhirurgii Imeni N.N. Burdenko (1990), No 3, pp 11-14

8. Mixture of Microbe Infections

Kitchen Sink of Infections - This study showed clinical trials of UBI successful against *pneumococcus, staphylococcus, streptococcus,* and a mixture of other microbes. In a 182-patient study with 90 as a control, the treatment group recovered more rapidly (by 5 to 7 days), had fewer complications, and experienced a reduction in fibrinogen to normal activation of anticoagulatory and fibrinolytic elements. Those treated after diagnosis of Initial Anemia saw a 30.7% increase in erythrocytes.

Novgorodtsev, A.D. and Ivanov, E.M., UBI as a Method of Nonspecific Therapy of Acute Pneumonia [Russian],"Voenno-Meditsinski Zhurnal (1992) no 12 pp 38-39

9. Meningitis

Meningitis - Eighteen children with meningococcal infections received LBI treatments. Researchers observed improvement in microcirculation, infective-toxic shock disappeared, and hemodynamic status improved 2-3 days earlier than with standard therapy.

Brill, G.E. (1994). "The Experimental and Clinical Use of Low-Intensity Lasers and Irradiation in the Millimeter Range [Russian]". Saratov

10. **Typhoid**

Typhoid Fever - A three-arm retrospective study on typhoid fever determined that UBI alone was more effective than UBI plus antibiotics and much more effective than antibiotics alone. This study is informative that UBI as a monotherapy is effective.

Rebbeck, E.W., Lewis, H.T. (1949). "The Use of Ultraviolet Blood Irradiation in Typhoid Fever," Review of Gastroenterology 16:640-649

11. **Lyme Disease**

UBI: one of the therapies known for Lyme treatment success.

Although missing the reference, the following was communicated to the author some years ago.

As a clinic we try many tools. UBI is one of those that are at the forefront of our Lyme protocol. There are a number of issues with Lyme – biofilms, different bacterial infections, toxins, etc. It is our belief and experience that in using UBI, it brings the patients more in balance and allows other avenues of treatment. A case in point was of two elementary school boys who could not continue school because of their Lyme infection. We gave them 4 UBI treatments in the first two weeks and saw amazing results. They became more alert and active. They were also able to resume school. It was then that we could add other therapies to a much greater effect.

Physician report on Lyme case

Fran – long history of chronic Lyme disease and other issues that cause energy loss. She is athletic, mid- thirties and a runner. Her issues were that she had fatigue and some memory and cognitive issues.

In Her Own Words

"I had the first UBI session and felt great and ran a five-mile race and posted my best time, which I was thrilled about, considering I had not trained for the race.

After my second treatment, I was running my normal six miles, and I was feeling great and decided to see how long I could hold up. After 12 more miles, I stopped, not because I was fatigued, but my feet had blisters on them. My oxygen-carrying capacity was great.

Cognitive improvement was shocking after the first treatment. I remembered things easier like where my car was parked, which was usually very challenging. In conversations, I was easily recalling words and ideas. In reading, I was able to stay more focused.

I highly recommend this as it has really worked for me. It was so easy to do in just 30 minutes. I feel wonderful."

– CHAPTER FIFTEEN –

Viral Studies

As I write this, we are in the middle of the COVID pandemic. In the US, over 440,000 deaths are claimed to be victims of the virus that was released upon the world from China. The frustrating thing is that many physicians in the alternative medical world have voiced that COVID can be handled with many anti-viral tools. These therapies are available and inexpensive. One of those proven therapies is UBI.

Although there are a variety of viral disorders, UBI has been used on most of them successfully. The painful shingles outbreak that may occur in older adults is almost always reduced by one or two treatments.

In a world where viral infections need a cure, it is incomprehensible that politics, government, and pharma shun the many inexpensive and ready alternatives. It

He came in with all of the symptoms of COVID-19. Labored breathing, fever, malaise. He was adamant about not going to the hospital, so he asked for a UBI. The first one did little but two days later a second treatment was given. It was like night and day. He came in smiling and asking, "Why isn't this being used in the hospital?"

does make one a bit cynical when lives are needlessly lost because this proven medical treatment is not "politically correct."

Areas Covered

1. Influenza and Infections which include COVID, SARS, MERS, and H1N1
2. Viral Pneumonia
3. Treatment of Viral Hepatitis
4. Polio
5. Viral Sinus Infection
6. Eye Infections – Irido-cyclitis, Uveitis, Retro-bulbar neuritis, Ophthalmicus, Keratitis,

1. Influenza and Infections

Respiratory tract infections, Herpes zoster, Herpes Simplex, Mumps, Measles, Mononucleosis (EBV), and plantar warts –

Reports of Miley and others have shown that UBI successfully treats the above list. In the study, researchers listed 79 consecutive cases of virus infections treated with UBI with patients from early stages to moribund. In this report, 98% of the patients recovered, including 8 of the 9 that were apparently moribund (near death).

Miley, G. P., Christensen, J.A. (1948), "Ultraviolet Blood Irradiation Therapy in Acute Virus and Virus-Like Infections." Review of Gastroenterology 15:4:271-283

445 Acute Infection Cases Documented - The study of the clinical effects of ultraviolet blood irradiation in 445

consecutive and unselected cases of acute pyogenic infections has been made. Confirmation of our original preliminary findings was observed. These findings showed that ultraviolet blood irradiation therapy was a rapid, efficient, and non-specific control of all types of acute pyogenic infections…

In seventy-four consecutive and unselected cases of virus or virus-like infections, we have observed results comparable to the favorable effects observed in its use in acute pyogenic infections.

Miley, G.P., Christensen, J.A. (1947). "Further Studies in Acute Infections. Ultraviolet Blood Irradiation Therapy," American Journal of Surgery 73:4:486-93

2,500 Treatments - Barger, M.D. of Georgetown University Hospital had administered over 2,500 UBI treatments and concurred with the above findings.

Dillon, Kenneth J. Healing Photons: The Science and Art of Blood Irradiation Therapy. Scientia Press. Spectrum Bioscience, Inc. (1998)

H1N1 and HIV - UBI recently also showed efficacy in a 2006 animal study still unpublished but also mentioned in the below study on influenza and simian immunodeficiency viral infection. The treatment of influenza-infected animals produced improvement in both the viral load and the pulmonary function.

Kuenstner JT, et al. Muk (2015) "The treatment of infectious disease with a medical device: results of a clinical trial of ultraviolet blood irradiation (UVBI) in patients with hepatitis C infection". *International Journal of Infectious Diseases 37:58–63*

2. Viral Pneumonia

Miley reported that a single treatment with UBI was sufficient to bring about recovery from viral pneumonia.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997. Silver Spring, Maryland: Foundation for Blood Irradiation.

In a **Russian study of 10 patients**, ages 17-30 with acute pneumonia and 20 controls were given antibiotics as well as two UBI treatments. There was a marked favorable influence on the regulation of lipid peroxidation and the antioxidant system with overall beneficial results for an uneventful recovery.

Yaklovlev, et al."UBI in Acute Pneumonia: Some mechanisms of Therapeutic Action and Optimization of Intervals between procedures [Russian]," Terapevticheskii Arkhiv (1994) 66, No. 8, pp.39-42

A Study comparing LBI with standard drugs in patients with acute pneumonia found that with LBI, fever and intoxication disappeared an average of 4.8 days sooner and that auscultatory symptoms (lung disturbance) disappeared 3.29 days sooner. LBI group had much less lung damage. Patients had virtually no perivascular suppuration or erythrocyte aggregation.

Izhevsk,"Use of Low-Intensity lasers in Experimental and Clinical Medicine"[Russian] (1994) pp 63-64

3. Treatment of Viral Hepatitis with UBI

Forty-three patients with acute viral hepatitis were treated with an average of three UBI therapies. Thirty-one

of these patients had acute infectious hepatitis, three were chronic and of long-standing, and twelve had acute serum hepatitis.

Rapid subsidence of symptoms of nausea, vomiting, anorexia, pain, and jaundice was noted in all patients treated, as well as a coincident trend back to normal indicated by laboratory studies. Marked improvement was noted in twenty-seven patients within three days or less after the institution of blood irradiation therapy. Eleven patients showed marked improvement in four to seven days, and five patients were markedly improved in eight to fourteen days. No patients died.

No untoward effects or unfavorable reactions were observed as the result of blood irradiation therapy in these patients, and no patient was found unable to tolerate the therapy or to develop a resistance to it.

Olney, R. C., et al. (1955). "Treatment of Viral Hepatitis with the Knott Technique of Blood Irradiation," American Journal of Surgery 90:3:402-9

LBI treats Hepatitis and Cirrhosis of the Liver - Another study from 1994 had groups with chronic active hepatitis and cirrhosis of the liver.

1. Group 1 – (20 patients) standard drugs – 12 of 20 had good results; 2 died.
2. Group 2 – (26 patients) LBI treatment – 23 of 26 had good results.

Suspected improved microcirculation in the liver was a factor and accounted for the superior outcomes.

Izhevsk, "Use of Low-Intensity lasers in Experimental and Clinical Medicine" [Russian] (1994) pp 63-64

Hepatitis Effectively Treated in 2015 by UBI - 5 UBI treatments over ten weeks produced a lowered viral load by 56%. There were no significant adverse events. UVBI was safe in all patients and effective for the treatment of HCV infection in a majority of patients.

Kuenstner, J.T., et al. "The Treatment of infectious disease with a medical device: results of a clinical trial of ultraviolet blood irradiation (UVBI) in patients with hepatitis C infection." Int J Infect Disease 2015 Aug: 37:58-63.

4. Polio – Poliomyelitis, Polio Encephalitis

Acute Poliomyelitis - Previous results in Los Angeles showed when UBI was used, the death rate was significantly lowered. The poliomyelitis patients were consecutively treated in an epidemic in which the mortality of the untreated acute bulbar cases exceeded 40 percent, as opposed to that of 9 percent in the UBI cases.

Miley, G.P. (1944)."Ultraviolet Blood Irradiation Therapy in Acute Poliomyelitis,"Archives of Physical Therapy 25:651-656

Comparative study of 25 cases of acute, severe bulbospinal polio in children – of these children, 11 had UBI, and 14 had standard treatment. Of the UBI treated, 1 died, and 10 had a full recovery. Of the 14 in control, 5 died, and 9 recovered.

Burke, F., Laverne, A.A., Barger, G.J.P. (1950)."Ultraviolet Blood Irradiation in the Treatment of Acute Poliomyelitis,"American Blood Irradiation Society Bulletin 3:3

Treatment of experimental poliomyelitis in monkeys - Ultraviolet rays kill poliomyelitis virus. They also detoxify and inactivate bacteria and toxins. Perhaps blood, which is capable of absorbing ultraviolet rays, would give off secondary emanations that would destroy the virus in vivo.

Macaca mulatta monkeys were given poliomyelitis virus intracerebrally and successfully treated with UBI.

Toomey J.A., M.D.; Takas, W.S. (1943) "Treatment of experimental poliomyelitis", Am J Dis Child. 1943;66(6):605-606.

5. Infection of Sinus

Severe cases of Highmoritis with complications in children following viral infections of facial sinuses found UBI to be very effective.

Ozerskii, Yu. Ya. et al, "UBI in Severe Cases of Highmoreitis [Russian]", Vestnik Otorinolaringologii (1995) No. 1 pp. 49-50

6. Eye Infections Plus

Iridocyclitis, Uveitis, Retro-bulbar neuritis, Herpes zoster, ophthalmicus, and keratitis

Study of 27 patients using a number of controls, ophthalmologists treated patients with UBI. The research shows that all cases treated with UBI responded exceptionally well. UBI cases were discharges in 17.5 days vs. 30.8 for the control group.

Farmer, D.F. et al. (1952). "The Use of Hemo-Irradiation (Knott Technique) in Eye Infections," Industrial Medicine and Surgery 21:4:183-185

– CHAPTER SIXTEEN –

Autoimmune Studies

According to the National Institute of Environmental Health Sciences, there are more than 80 known autoimmune diseases affecting around 24 million people in the United States. Many of these conditions are considered chronic and "incurable" by contemporary, conventional medicine.

Often, traditional Western medicine "treats" autoimmune disease by controlling the body's response with steroids or immunosuppressants. This approach, unfortunately, often just

"Several years back I developed an autoimmune disease that attacked my nerves and arteries. This resulted in sharp pain throughout my body as it moved through my muscles and joints. After chemotherapy and years of a list of drugs, I still could not get a controllable handle on the pain.

I now have completed 10 UBI treatments and have had considerable reduction in pain. I have been able to reduce my drugs to a minimum amount to prevent a relapse. I have more energy now and thank God for availability of this treatment…"

CEO of a construction entity

hides the symptoms and does not seek to find and treat the underlying causes of the disease.

UBI has an excellent history of helping these disorders. UBI's mechanism is one of quieting the immune system when the body is attacking itself in these autoimmune disorders.

Areas Covered:

1. Mechanism with Autoimmune Disorders
2. Rheumatoid Arthritis
3. Allergies
4. Multiple Sclerosis
5. Rash
6. Asthma – (See pulmonary)

1. Mechanism with Autoimmune Disorders

DMARD mechanism - UBI cannot reverse the effects of autoimmune diseases, but it can, in some cases, limit or stop their progress. In effect, UBI is a Disease-Modifying Antirheumatic Drug (DMARD). From the perspective of UBI, these autoimmune disorders are all the same disease. Some viral agent, toxin, or physical trauma has altered the cells in the affected region so as to make them appear strange to the immune system, which dispatches T-cells to orchestrate an immune response to them. UBI acts to suppress the excessive metabolic activity that this autoimmune response represents. In a similar fashion, a recent Russian study suggests that LUBI is effective against metabolic disorders of genetic origin (reported at the November 1996 International Laser Medicine Conference in Moscow). Thus, UBI may be effective in limiting the progress of such disorders as multiple dystrophy, though it cannot reverse damage already done.

Dillon, Kenneth J. Healing Photons: The Science and Art of Blood Irradiation Therapy. Scientia Press. Spectrum Bioscience, Inc. (1998)

2. Rheumatoid Arthritis – "Very Beneficial"

Nine Years of Rheumatoid Pain - There was an extensive study done on 148 patients with an average of 9.1 years of Rheumatoid Arthritis.

It was reported that:

- 27 patients were in stage I,
- 50 in stage II,
- 55 in stage III,
- 16 in stage IV.

These were divided into five groups; four received varying amounts of LBI at differing frequencies, with the last being a placebo group. Results were clear that those in earlier stages of RA were significantly helped, and the more severe the patient's condition, the more difficult.

This study on rheumatoid arthritis showed that there is a placebo effect on having treatments. This is well documented, but it was nowhere near as good as the response of two groups that were given more consistent and frequent treatments.

In severe cases of rheumatoid arthritis, UBI can exacerbate the condition, presumably where irreparable joint damage had occurred, but in moderate to mild cases, UBI was shown to be very beneficial.

Zvereva, K.V., N.D. Gladkova, E.A. Grunina, and P.L. Logunov (1994). "The Choice of Method of Intravascular Laser Therapy in Rheumatoid Arthritis [Russian]," Terapevticheskii Arkiv, 66:1:29-32

3. Allergies - One patient's testimony

Sent my Nerves Sky High - "I had extreme allergies to smoke and a number of other things. If I was near any smoke or someone who had smoked, I could not breathe and lost my voice for several hours. Chocolate gave me a migraine headache. Caffeine and alcohol sent my nerves sky-high. I was told to stay away from those things, which can be hard sometimes. I was told nothing could be done and "learn to live with it."

After only three Ultraviolet Blood Irradiation treatments, my allergies were cured! Someone was within five feet of me smoking, and I did not have an attack. I ate chocolate and had some wine, and nothing happened! I had no reaction to them. It is wonderful to not have to wonder when my allergies are going to kick in."

Rebecca

Poison Ivy "I had suffered from allergies, most notably poison ivy eruptions, for years with my landscaping business. The poison ivy outbreaks were so bad not even Caladryl® lotion would work on the blisters; I had to use Clorox®. Since my first UBI treatment, I have not had so much as a blister, much less an outbreak."

Jack

4. Multiple Sclerosis

MS Patients Helped - In a small study with five patients, two improved dramatically. One patient recovered from terminal stage M.S. after four sessions of UBI and lived a relatively normal life for some years. Another patient improved "remarkably."

Barger, G. and E.K. Knott (1950) "Blood: Ultraviolet Irradiation (Knott technique)," Medical Physics II: 132-36

MS Russian clinical trial - occurred where physicians irradiated the cerebrospinal fluid of 26 patients and did this twice, which showed promising results. The improvement was indicated by positive trends in pelvic functions, sensory and coordination disorders, and normalization of the blood immunological picture. They obtained good results with 14 patients, with 12 showing no results. There seems to be a better response with those who have less aggressive cases.

Totolyan, N.A. et al. "UV Irradiation of Cerebrospinal Fluid in the Treatment of Patients with Multiple Sclerosis [Russian]," Zhurnal Nevropatologii i Psikhiatrii Imeni S.S. Korsakova (1993), No 4, pp. 9-14

Patient with on-going MS symptoms - "In 1998, I was diagnosed with progressive Multiple Sclerosis. I was given different Interferon medications. My symptoms were not subsiding. I tried acupuncture, apitherapy, and zone and water diets. In 2004, I lost my balance often and had a hard time speaking and seeing. I lost most of my sight in my left eye, and my legs were in constant pain. It felt as if a hot skewer went through my muscles. The pain was constant and excruciating. My hands and arms ached constantly in 2007. After the 3rd Ultraviolet Blood Irradiation (UBI) treatment, the pain in my legs was gone. After the 5th treatment, my eyesight in my left eye became clearer, and after the 7th treatment, my balance is returning. After the 10th treatment, I want to have a new MRI taken to compare with my 2004 MRI to show what common sense and prayer can do to an autoimmune disease. I believe the UBI treatment was the main reason."

Cheryl

5. Rash

After Drugs and 5 years, UBI cured me - A 50-year-old patient came to our clinic complaining of a particular facial rash. She was involved with plastics and inks in the place that she worked. She developed a rash that would not go away. The rash would subside over the weekend but then would come right back as soon as she was back in the environment. Drugs and creams did not help. She had to stop working because of the rash on her face and neck. This had been occurring for five years. She came for her first UBI treatment, and in 1 treatment, the rash disappeared. Her comment was, "It was like a miracle. It has not come back for over six months now."

Observation from Health 1 Clinic staff – Lansing, MI 2010

– CHAPTER SEVENTEEN –

OB/GYN – Increase Your Chances for a Healthy Baby

Having a child is one of God's greatest gifts to man. *For You (God) created my inmost being;You knit me together in my mother's womb. I praise You because I am fearfully and wonderfully made;Your works are wonderful, I know that full well. Psalm 139: 13,14 NIV*

And we also know the pain of what is in the fallen world where sickness, disease, and death are a part of life. It would be a great joy to introduce UBI to the OB/GYN community, both to parents and children who may suffer and to the medical establishment. With UBI, more children can be born healthy and safely.

Areas Covered

Reduction of Miscarriages and Still Births

1. Increased Fertility
2. Preeclampsia

From one who knows...

"Being an OB/GYN physician and knowing the safety record of the therapy, I had no fear of using this. It has been a godsend for a lot of these women who have complications that are not easily resolved." Dr JB

3. Severe Cholestasis
4. Non-Drug Pregnancy
5. C-Section Infections Reduced
6. Pregnancy Infections -PID and Sepsis
7. Newborn Issues
8. Other Issues
9. No Harmful Effects

Here are a few of the benefits of UBI listed for the child and parents.

- Infertility reduced
- Normalization of the menstrual cycle
- Reduction of migraine headaches associated with pregnancy
- Increased blood flow to the fetus
- Growth normalization of newborns
- Reduction of pain
- Detoxification of the body
- Anti-inflammatory effect
- Reduction of preeclampsia
- Increased birth weight
- Reduction in stillbirths/miscarriages
- Fewer C-sections required
- Better APGAR scores
- More ability to lose weight after birth
- Sepsis deaths reduced
- Reduced death of critically ill newborns
- Prevention of complications after birth
- Higher sperm motility and increased pregnancy
- Endometriosis successfully treated

UBI tends to normalize the body immunologically and hormonally. The benefits of microcirculation and oxygenation increase are an obvious benefit to mother and child. The reduction of toxins and inflammation are also key to a healthy pregnancy and delivery.

1. Reduction of Miscarriages and Stillbirths

Miscarriage is when a baby dies in the womb before 20 weeks of pregnancy. For women who know they are pregnant, about 10 to 15 in 100 pregnancies end in miscarriage. About 1 in 100 women (1 percent) have repeat miscarriages. Stillbirth is the term used for a baby that dies after 20 weeks of pregnancy. A baby is stillborn in about 1 in 200 pregnancies. Because many stillbirths happen in what appear to be normal pregnancies, they can be devastating to the parents.

The Use of UBI in Obstetrical-Gynecological Practice [Russian]

Many Reproductive Problems Solved - UBI has been used in Russia in careful studies with great effectiveness and safety to correct fetal conditions hard to treat with drugs as well as infections, hypoxia, and slow growth of newborns.

In numerous studies by the same authors, 215 women treated for gynecological disorders ranging from **adnexitis to endometriosis to disruptions in the menstrual cycle f**ound UBI to have an analgesic, detoxifying, and anti-inflammatory effect.

One study in which UBI was combined with hemoabsorption (oxygen) found a fourfold decline in mortality and a more rapid recovery on average.

Maltsuyev A.I. et al ,"The Use of UBI in Obstetrical-Gynecological Practice". Ginekologiia 8:6-10 1990

US-based OB/GYN's experience with UBI - "We had a patient with five recurrent miscarriages after two successful babies. She had seen all university experts and used all sorts of potential things to help. Nothing had worked, from blood thinners to hormones, etc. We did do endometrial sampling and found parasites, and treated her with UBI on four separate treatments. She got pregnant soon after and carried her baby boy to term. Now she is pregnant again with no other treatments and carrying this baby to full term.

Another patient with 14 recurrent miscarriages had never gotten past seven weeks; hearing no heartbeat. We started doing UBIs three per week early on in her pregnancy. We started as soon as the ultrasound saw the sack. We continued as the early heartbeat was detected. In previous pregnancies, we had tried all of the tricks. We were also using Louvenox® daily, but also UBI…now we are 9+ weeks with normal pregnancy."

OB/GYN Clinic

UBI for Threatened and Inevitable loss of a child - Abstract: Thirty consecutive patients with thirty-eight episodes of low abdominal cramps and/or vaginal bleeding and/or premature labors occurring during their pregnancies were treated with the Knott technic of blood irradiation. It was believed that these symptoms indicated the probability of threatened or inevitable abortions.

Twenty-one patients with thirty episodes of low abdominal cramps and/or vaginal bleeding and/or premature labors were treated with the Knott technic of blood irradiation, usually within twenty-four hours after the appearance of the symptoms. In each case, the symptoms ceased promptly, and all patients in this group continued to term or near-term and delivered normal, healthy babies.

Three patients had histories of previous spontaneous abortions. One patient (Case 8) reported two previous miscarriages at seven and three months, respectively, another (Case 22) presented a history of one previous miscarriage, and another (Case 25) reported three previous miscarriages. All three patient's pregnancies proceeded uneventfully to normal delivery at term.

It is interesting to note that rapid subsidence of cramps and bleeding was observed after administration of blood irradiation therapy in each of the thirty episodes previously mentioned, as well as obviation of the necessity for curettage and prompt recovery of the patient in the cases of inevitable or incomplete abortions.

Schultz, Ivan T., Use of the Knott technic of blood irradiation therapy in cases of threatened and inevitable abortion, Am. J. Surg. 88: p421-424, 1954

2. Increased Fertility

UBI physician observation - "A patient came in who had infertility for years. We started doing UBI therapy, and soon after, she became pregnant. She continued to full term with no other interventions." Idaho physician - 2019

Primer on Ultraviolet Radiation of Blood - Frick found that patients he treated for migraine headaches experienced normalization of the menstrual cycle and conception as a side benefit.

9 out of 30 women who had not been able to become pregnant were successful after UBI. It had the effect of normalizing their menstrual cycles.

Frick, G. (1989). *Fibel der Ultrviolettbestrahlung des Blutes*. Ernst-Moritz-Arndt-Universitaet Greifswald

Male Infertility Helped - 50 men suffering from excretory infertility with age ranges of 21-39. Twenty-five received standard therapy with UBI, 25 with just standard therapy. The UBI group experienced an improvement in sleep and appetite. UBI group had less oligospermia and higher numbers of motile sperm. Ten pregnancies occurred in the UBI group, while six occurred in the control group.

Tarinskii, A. P. et al. "Treatment of Male Excretory Infertility with UBI [Russian]," Akusherstvo I Ginekologiia (1990), No. 6, pp 61-62

Menstruation Balanced, Fertility Increased - Excerpt from UBI treatment of Polycystic Ovary Syndrome

- 29 out of 41 with amenorrhea (absence of menstruation) achieved regularization of their menstrual cycle.
- 7 of 24 complaining of infertility became pregnant

Kalinin A.P. et al., UBI in the Treatment of Polycystic Ovary Syndrome [Russian] "Problemy Endokrinnologii 38, NO 6, pp 19-21 1992

3. Preeclampsia and Eclampsia

Preeclampsia and eclampsia are pregnancy-related high blood pressure disorders. In preeclampsia, the mother's high blood pressure reduces the blood supply to the fetus, which may get less oxygen and fewer nutrients. Eclampsia is when pregnant women with preeclampsia develop seizures or coma which can lead to death. Pre-eclampsia affects 2–8% of pregnancies worldwide. The definitive treatment for pre-eclampsia is the delivery of the baby and placenta. Preeclampsia levels are 3.4% in the US, translating into 120,000 pregnancies.

Pre-eclampsia is one of the leading causes of maternal and perinatal morbidity and mortality worldwide. Nearly one-tenth of all maternal deaths in Africa and Asia and one-quarter in Latin America are associated with hypertensive diseases in pregnancy, a category that encompasses pre-eclampsia.[A]

Fewer C sections and better APGAR scores - 91 patients with preeclampsia in the 3rd trimester were treated in Russia. Sixty-one received high doses of LBI for 20 minutes, seven days in a row, while 30 patients received standard drugs.

They found that LBI helped to stabilize erythrocyte membranes, improves microcirculation and blood rheology. It significantly reduced hemolysis, increased diuresis, resolved edema, rapidly and dramatically reduced proteinuria (0.24g/l compared to 0.82 g/l), lowered blood cholesterol, and more rapidly alleviated hypertension compared to the control group.

Babies born to this LBI group had better APGAR scores – 20% required C-section while 31% of the control had C-sections. In conclusion, LBI cut the rate of unsuccessful response to treatment from 61% to 20%.

The babies born to the LUBI group were virtually identical in weight and height to those of the third group of 11 healthy controls.

Bednarskii, A.S. et al. "The Use of Intravascular LBI in the Combination Therapy of Preeclampsia [Russian]," Akusherstvo i Ginekologiia 6:18-22 (1995).

UBI in Preeclampsia - An Open Letter of Success - The following is an excerpt from an open letter to the editor from a Russian OB/GYN stating that UBI has been used in the Department of Obstetrics and Gynecology of Voronezh Medical Institute since 1988 with profound success. They state: "Tradi-

tional methods of treatment for preeclampsia are far from perfect; some patients are resistant to therapy, and some medicines may cause allergy and unfavorably influence the fetus."

Here is the letter in part:

Fifty-two patients with different degrees of gestosis were treated with ultraviolet blood auto-transfusion and plasmapheresis. The results were compared to a similar group of 53 patients with gestosis who were traditionally treated. There was no special selection of patients for either treatment.

Investigations show that patients' microcirculation, especially the intravascular component, improved: the sludge syndrome manifestation disappeared or decreased sharply, the rate of microcirculatory blood flow normalized, and the number of functional capillaries increased. This indicates that ultraviolet irradiated blood autotransfusion and plasmapheresis reduce the pressure on the system caused by intravascular blood coagulation and eliminates the problem of disseminated intravascular coagulation. Clinically, the treatment results in the steady disappearance of the main manifestations of gestosis.

The treatment resulted in prolongation of gestation by 4.1 weeks on average. The birth process went more favorably than in the control group. Pathological births and poor fetal conditions were reduced by a factor of 0.5.

The average blood loss at birth also decreased. The newborn weight was higher on average, and the condition of the newborns was better in patients receiving ultraviolet irradiated blood and plasmapheresis compared to the control group. Fetal hypoxia was also less frequent in the treatment group.

Zalivansky, E. "Ultraviolet blood autotransfusions and plasmapheresis in preeclampsia", Acta Obstetricia et Gynecologica Scandinavica 1993 Oct;72(7):594.

4. Severe cholestasis

The internet says there are 3.8 million births a year in the USA; the rate of cholestasis/bile acid elevation in the USA is about 1% of those births or 38,000. Cholestasis may increase the risks for fetal distress, preterm birth, or stillbirth. A developing baby relies on the mother's liver to remove bile acids from the blood; therefore, the elevated levels of maternal bile cause stress on the baby's liver. Symptoms include intense itching, dark urine, and light-colored bowel movements.

> ***Input from an OB/GYN physician -*** *"This idea came to me when I had some patients with severe cholestasis not getting better with standard therapies of ursodiol to bind bile acids that elevate in this OB patients for unknown reasons. Having the UV light therapy tool in my office for other indications, it occurred to me that perhaps, just like bili lights in babies with jaundice used to break down the elevated bilirubin, that this UV light, when exposed to a women's blood, would help do the same for these high bile acids levels that cause cholestasis in pregnancy.*
>
> *These women are at high risk when this develops. They get EXTREME skin irritation and itching that starts on the palms of the hands and soles of the feet but then progresses to the whole body. They are at high risk because the fetal death rate increases and their pre-term delivery rates also escalate. Ursodiol is Rx meds that help to bind bile acids but not very well, and many still suffer from the symptoms and still have to undergo early induction or delivery to diminish the mortality and morbidity that comes to babies from the illness.*
>
> *So I have done about six patients over the three years using the UV light therapy and have gathered labs to show that doing*

the therapies, the bile acids will drop in half very quickly, and the more often the UV light therapy, the faster the bile acids drop and normalize.

We are now working with a number of women and seeing good results in severe cholestasis."

Dr Jeffery B

5. Non-Drug Pregnancy

Often there are side effects to certain drugs that are encouraged to be taken when problems occur in pregnancy. At times, these drugs can be reduced or even eliminated when other alternative medical treatments are used. Below is just one example.

Severe Rash - A pregnant patient came to us with severe rashes of unknown cause. She did not want any drugs out of concern for herself and her child. We did UBI therapy with 240cc of blood and all symptoms resolved. These are just a few of the many success stories that we have had with UBI.

Holistic Clinic in the Midwest

6. C-Section Infections Reduced

Prevention of inflammatory complications after cesarean section by using UV-irradiation][B] Sov Med 1990;(8):107-10. [Article in Russian] I S Sidorova, S S Babaian, M L Kirakosian

Effect of ultraviolet irradiation of autologous blood on lipid peroxidation in the prevention of complications after cesarean section in gestosis.[C]

Sidorova IS, Kirakosian ML, Volkova OI, Kolesova OE .Sov Med. 1990;(12):105-.PMID: 2097739 Russian. No abstract available.

7. Pregnancy Infections - Disorders and Problems

Puerperal sepsis is an infective condition in the mother following childbirth. It is the third most common cause of maternal death worldwide as a result of childbirth. According to the World Health Organization (WHO) estimates, puerperal sepsis accounts for 15% of the 500,000 maternal deaths annually. Puerperal sepsis can cause long-term health problems such as chronic pelvic inflammatory disease (PID) and infertility in females.

Puerperal sepsis was defined as an infection of the genital tract occurring at any time between the onset of rupture of membranes or labor and the 42nd day postpartum in which two or more of the following are present:

- Fever (oral temperature 38.5°C/101.3°F or higher on any occasion)
- Pelvic pain
- Abnormal vaginal discharge, e.g., presence of pus
- Abnormal smell/foul odor of discharge
- Delay in the rate of reduction of the size of the uterus (involution)
- (A puerperal infection is a more general term than puerperal sepsis and includes not only infections due to puerperal sepsis, but also all extra-genital infections and incidental infections-WHO)

In the past, prior to antibiotics, when serious infection sets in, there was little that could directly affect the recovery of the mother.

Infections Conquered with UBI prior to Antibiotics - After seven years of clinical research, several physicians in various parts of the United States compiled clinical evidence on treatment for pyogenic infections (including puerperal sepsis) that, to date, has not been widely published. In a series of 151 consecutive unselected cases of acute pyogenic infections treated by George Miley at Hahnemann Hospital, Philadelphia, between November I, 1938 and December 31, 1941, the recovery rate was IOO% in the early cases; in the moderately advanced eighty-one cases the rate was 98%, and in fifty-five apparently moribund patients the rate was 42%.

Miley, G.P. (1942). "The Knott Technique of Ultraviolet Blood Irradiation in Acute Pyogenic Infections," N.Y. State Journal of Medicine 42:1:38-46

2,486 Patients Helped with UBI – "From June I, 1937, to May 31, 1940, we had 2,486 obstetrical patients. It is significant that since the establishment in July 1937 of hemo-irradiation therapy (UBI), and for the period of time covered by this paper, no deaths have occurred in our institution from puerperal sepsis."

E.W. REBBECK, M.D. General Surgeon, "ULTRAVIOLET IRRADIATION OF AUTOTRANSFUSED BLOOD IN THE TREATMENT OF PUERPERAL SEPSIS", Shadyside Hospital Pittsburg, PA

Pelvic Cellulitis of Pelvic Inflammatory disease (PID) is an inflammation of the tissue adjacent to the uterus, particularly the broad ligament.

"Gratifying Results" in Hundreds of Patients – "Since June 1944 - 1947, we have treated 631 patients with this condition with such unusually gratifying results that we believe

they are worth reporting. These are classified as very severe - 220 cases (35%); moderately severe - 238 cases, (38%); and mild - 173 cases (27%).

UBI monotherapy relieved all symptoms, and patients returned to normal in 174 (79%). Twenty-four patients (11%) were improved, while 22% (10%) required operations for ovarian cysts, fibroids, or abscesses.

A large number of the patients treated had massive inflammatory disease; many had been persistent for years. "

Olney, R.C. (1947). "Ultraviolet Blood Irradiation Treatment of Pelvic Cellulitis, Knot Method," American Journal of Surgery 84:4:440-443

Septic Abortions needing UBI - In this study, 126 patients had sepsis, 66 had septic abortion outside of the hospital. There were three groups comprised of 42 patients each. Group 1 – received 3-10 sessions of UBI, Group 2 UBI plus hemo-absorption, Group 3 standard drug treatment.
Group 1 – 2 cases of septic pyemia and 14 deaths
Group 2 – 0 cases of septic pyemia and 6 deaths
Group 3 – 6 cases of septic pyemia and 23 deaths

Pyemia is a type of **sepsis** that leads to widespread abscesses of a metastatic nature

Ganelina, I.E.et al. "Mechanisms of the Influence of Blood Irradiated with Ultraviolet Rays on the Organisms of Humans and Animals" Leningrad Nauka 1986

Pelvic Inflammatory Disease with a Control vs. UBI - A study in 1990 with 23 patients with various kinds of

PID and related conditions were treated with UBI plus drugs, and a control group of another 24 received just standard drug therapy. Pain disappeared, temperature normalized, and disease signs disappeared much sooner with the UBI group. They healed in an average of 12 days while the control group took 21 days.
Mashkin, O. A. et al., "The UBI method in the Combination Therapy of Patients with Inflammatory Conditions of the Genitals [Russian]," Akusherstvo I Ginekologiia (1990), No 10, pp. 58-60 14

8. Newborn Issues

UBI in premature newborns with infections - The method of UV-irradiated auto blood reinfusion was used in intensive care of 25 premature babies with pyoinflammatory diseases. On the second day after reinfusion, 17 babies showed an improvement of infectious intoxication, decreased level of antigenemia, liquor purification, leukocyte blood count normalization, and decreased levels of total bilirubin, residual nitrogen, and urea. Within five days after the reinfusion, the activation of the antioxidant blood system and reparative processes was observed. No complications were noted. The effect was not achieved in 8 babies, 6 of which died.

Gavriushov, V.V. et al. "A method of reinfusing ultraviolet-irradiated auto blood in combined modality intensive therapy of pyo-inflammatory diseases in premature infants", Anesteziol Reanimatol. Jul-Aug 1989;(4):38-40.

Ultraviolet irradiation of autologous blood in suppurative-inflammatory diseases in critically ill newborn infants.[D]

Critically Ill Newborns Helped - The use of ultraviolet auto blood irradiation in pyoinflammatory diseases has been analyzed in 52 critically ill newborns. The data obtained indicate that UBI irradiation has a correcting impact on homeostasis due to the bactericidal, oxygenating, and detoxicating effect of the procedure.

Upon three treatments of UBI – dose equivalent to body weight; the anti-hypoxic effects of UBI showed in 28 cases. The infants became more active and stopped having breathing problems.

Mezhirova, N.M, V. V. Danilova, "Ultraviolet irradiation of autologous blood in suppurative-inflammatory diseases in critically ill newborn infants". Anesteziol Reanimatol Mar-Apr 1993;(2):50-2

9. Other Issues

119 patients and 23 controls. Striking effects:

- 25 out of 29 women complaining of headaches improved
- 29 out of 41 with amenorrhea (absence of menstruation) achieved regularization of their menstrual cycle
- 7 of 24 complaining of infertility became pregnant
- 8 of 42 complaining of hirsutism (extra hair growth often arises from excess male hormones) experienced improvement
- 12 of 30 overweight women lost 6 – 52 pounds in 3 weeks following UBI therapy without additional intervention

Lab findings included a disappearance of hyperandrogenism and a tendency toward normalization of secretion of gonadotropins.

Kalinin A.P. et al., "UBI in the Treatment of Polycystic Ovary Syndrome [Russian]", Problemy Endokrinnologii 38, NO 6, pp 19-21 1992

10. No Harmful Effects

In regard to the effects of UBI on the fetus, after careful study, no one has found any harmful effect nor sign of mutagenicity.

Maltsuyev, A.I. et al."The Use of UBI in Obstetrical-Gynecological Practice [Russian],"Akusherstvo I Ginekologiia (1990), No 8, p.8 19

Links

A. https://en.wikipedia.org/wiki/Pre-eclampsia

B. https://pubmed.ncbi.nlm.nih.gov/2274809/

C. https://pubmed.ncbi.nlm.nih.gov/2097739/

D. https://pubmed.ncbi.nlm.nih.gov/7943882/

– CHAPTER EIGHTEEN –

Pulmonary

Includes COPD, Tuberculosis, and Asthma

TB could be put in with bacterial infections, but its effect on the lungs allows this to also be put in problems with the pulmonary system.

Areas Covered

1. Curative powers with tuberculosis
2. Chronic Obstructive Bronchitis -COPD
3. MAP - Tuberculosis/Crohn's
4. Oxygen in the blood rises with UBI
5. Asthma and COPD helped
6. ICU acute respiratory insufficiency reduced
7. Mortality rate in infants with pneumonia cut
8. Bronchial Asthma Almost Always Helped

1. Curative Powers with Tuberculosis

Effectiveness of chemotherapy with destructive pulmonary tuberculosis. 100% Cured - 222 hospitalized

patients with destructive tuberculosis were divided into groups - 136 got standard drugs, the rest (86) had a combination of therapy that included UBI. Within three months, 100% of the UBI group were disease-free as compared to the drug only group at 58.8%. In those three months, 89.5% of the destructive results of tuberculosis were eliminated in the UBI group, and only 38.2% in the drug group. The average hospital stay was shortened by 48 days for the UBI group.

Zhadnov VZ, et al. (1995) "Effectiveness of chemotherapy in combination with electrophoresis and ultraviolet irradiation of blood in newly diagnosed patients with destructive pulmonary tuberculosis." Problemy Tuberkuleza 3:20–22

UBI in the Complex Therapy of Patients with Tuberculosis of the lungs - Another study shows 88 tuberculosis patients receiving low doses of UBI, that was compared to a control group. Out of the 88 patients, 31.9% noted significant improvement, 47.8% partial improvement, and 20.3% no improvement. Those with no improvement tended to have fibrous-cavernous tuberculosis; they were repeat cases and had undergone lung operations or were chronic alcoholics.

Mingalimova, R.G. et al.,"UBI in the Complex Therapy of Patients with Tuberculosis of the lungs [Russian],"Problemy Tuberkuleza 91995) No 3, pp.27-28

Tuberculosis study showed 119 patients positively helped - A trial of 119 tuberculosis patients had a combination of LBI and drugs. Patients were observed for cessation or diminution of coughing, reduction in mucous, improvement in pulmonary function, and stabilization of T & B lymphocytes. Conclusion: LBI is a helpful tool.

Dobkin, V.T. and Bondarev, G.B., "New Applications of Laser Medicine [Russian]" St Petersburg, 1993, pp. 70-71, Cited in E.V. Kul'chaveniia, "The Use of Low-Intensity Lasers in Phithisiatry."[Russian] Problemy Tuberkuleza (1995) No 4 pp 19-22

LBI sped up TB recovery by 2 months - In 25 of 44 teenagers suffering from acute and progressive tuberculosis, intravenous blood laser radiation was included into its multimodality treatment following 2-4 weeks of the initiation of chemotherapy. The use of laser enhanced the efficiency of treatment, accelerated positive changes by 1.5-2 months by major clinical and laboratory indices, made the disease run smoothly, and caused less pronounced residual changes in the lung.

Ovsyankina ES, et al. "Intravenous laser irradiation treatment of acute and progressive forms of tuberculosis in teenagers. [Russian]", Problemy Tuberkuleza. 2000; 1:14-17

Infiltrative Pulmonary Tuberculosis in Children and Adolescents - UBI twice as effective - In a randomized study of two groups of children and teens with infiltrative pulmonary tuberculosis, both received standard drug therapy, but one group received UVABI in addition. One out of two patients had drug-resistant Mycobacterium tuberculosis. The use of UVABI in the complex therapy of patients with tuberculosis was ascertained to promote a rapid, two-fold, more frequent bacterial isolation cessation resulting in an epidemic danger reduction in the patients, to have a positive impact on the formation of immune defense, mainly of a phagocytic link in children and adolescents, to exert a detoxifying effect, to favor better tolerability of antituberculosis drugs, to cause positive X-ray changes, and to improve the quality of life.

Shurygin, A. A. (2009). "The efficiency of ultraviolet autologous blood irradiation used in the complex therapy of infiltrative pulmonary tuberculosis in children and adolescents." Problemy Tuberkuleza I Boleznei Legkikh, 9, 20–23.

2. COPD Helped

Chronic Obstructive Bronchitis and pulmonary tuberculosis - The findings have suggested that the magnitude of clinical symptoms of COB was nearly halved, the forced expiratory volume per second increased, the counts of stab neutrophils and lymphocytes, and erythrocyte sedimentation rate became normal. Also, a significant decrease in the number of Mycobacteria tuberculosis detected.

Kuvshinchikova VN et al. Effectiveness of UBT in the treatment of obstructive bronchitis in pulmonary tuberculosis [Russian] Problemy Tuberkuleza. 1998;3:48-50

3. MAP – Symptoms relieved

MAP - Tuberculosis/Crohn's help - Mycobacterium avium subspecies paratuberculosis (MAP) belongs to a family of bacteria called 'Mycobacteria,' which also includes Tuberculosis and Leprosy. Kuenstner et al. did studies to find a cure. A combination of anti-MAP antibiotics and UBI was able to resolve the symptoms and also eliminate MAP in blood cultures. "UVBI devices may represent the best hope for Crohn's patients and others living with diseases traditionally considered autoimmune."

Kuenstner JT, et al."Resolution of Crohn's disease and complex regional pain syndrome following treatment of paratuberculosis."World Journal of Gastroenterology:WJG 21:4048–4062. 2015

4. Oxygen in the blood rises with UBI

Hypoxia is a condition in which the body or a region of the body is deprived of adequate oxygen supply at the tissue level. Hypoxia can occur from a number of problems, from COPD to heart problems to anemia. Different infections can cause oxygen levels to be lowered. Pneumonia can be a common cause of hypoxia.

Low oxygen blood levels rose from 7.0 to 11.1 before and 10 minutes after, or 58.6%. One month later, oxygen values were still elevated from 5.8% to 8.7% or an average increase of 50%. This appears to be the overall normalization caused by the healing process.

Miley, G.P. (1939) "The Ultraviolet Irradiation of Auto-transfused Human Blood: Studies in Oxygen Absorption Values", American Journal of Medicine Sciences, June 1939, p 873

Venous Blood levels Rose by an average of 25.6% - In 1970, Onley and Grez conducted a 21-patient study, all having hypoxia. That venous oxygen blood levels rose by 19.8% twenty-four hours after the first UBI treatment. Upon a second treatment, the value rose another 12% on average. Thus, there was an overall rise of 25.6% above initial pre-UBI values.

Olney, Robert and Grez, A."Treatment of Hypoxia"A preliminary Report on 21 Cases,"Abdominal Surgery 12 (1970), No. 3, pp. 45-46

5. Asthma and COPD helped

Central and organic hemodynamics were studied in extracorporeal UV irradiation of blood (EUVRB) conducted in patients with chronic nonspecific diseases of the lungs. EUVRB resulted in easier breathing and a decline in pulmonary hypertension.

Baklykova, S.N. et al. (1994)."The Hemodynamic Status during Ultraviolet Irradiation of the Blood in Patients with Chronic Nonspecific Lung Diseases [Russian]"Terapevicheskii Archiv 66: 12:87-90

6. ICU acute respiratory insufficiency reduced

Nine patients in ICU were treated with LBI. The initial observation showed the improvement of the respiratory parameters and the decrease of leucocytosis. Acute respiratory distress syndrome (ARDS) was not observed in the patients, despite the existence of risk factors.

Pisula, K et al., Application of intravenous helium-neon (He-Ne) laser therapy to patients with respiratory insufficiency: introductory report Proc. SPIEVol. 2781, p. 106-108, 1996

7. Mortality rate cut in Infants with Pneumonia

Reduced Infant Mortality - Analysis of the results of a clinical immunological study of the use of autotransfusion of blood treated by ultraviolet irradiation (UBI) in infants with acute purulent destructive pneumonia (APDP). UBI protects monocytic phagocytes and plasma cells of the blood. It helps humoral immunity and T-lymphocytes. It reduced APDR, reduced 1.7-fold times of treatment, and reduces the mortality rate of this disease considerably in young children.

Kalinlin, V.N. et al. "Autotransfusion of Blood treated by Ultraviolet Irradiation in Destructive Pneumonias in Very Young Children [Russian]," Khirurgia (1991) Aug 8, pp 14-2

8. Bronchial Asthma Almost Always Helped

5-7% of adults and 7-10% of children suffer from bronchial asthma. There can be various factors, such as allergies, respiratory infections, and even emotional components that cause an asthmatic attack. The results of a narrowing air passageway from bronchial spasm and or mucosal secretions are devastating. Each day, 10 Americans die from asthma or over 3,600 each year. A battery of drugs is employed with considerable success in relieving individual attacks. Still, UBI offers a non-drug option.

80 Cases of Asthma - In 1943, a series of 80 consecutive cases of intractable Bronchial Asthma cases were treated over a 4-year period. UBI was administered every 4-6 weeks. 9% were symptom-free for one year. 20% for six months were symptom-free, 16% relatively symptom-free.

There can be a moderate to severe attack after the initial treatment, which indicates that UBI is probably going to be effective. With treatments following UBI sessions, patient will have milder attacks and occur less frequently.

Miley, G.P., Seidel, R.E., Christensen, J.A. (1943) "Intractable Bronchial Asthma, Preliminary Report of Results Observed in 80 Cases," Archives of Physical Therapy 24:533-42

160 cases in 1946 of Intractable Asthma showed these findings:

1. The longer patients remained under treatment, the better the results. If treated for six months to one year, 72.7% of patients responded favorably. There is a genu-

ine benefit that persists for years.

2. The younger the patient, the better response to UBI. From ages 3-18, 92% definitely improved. Of older patients between 30-40-yrs old – 58% and between 40-60-yrs old – 54%, Over 60-yrs old – 23% improved.

Miley, G.P., Seidel, R.E., Christensen, J.A. (1946). "Ultraviolet Blood Irradiation Therapy of Apparently Intractable Bronchial Asthma," Archives of Physical Medicine 27:24-29

1996 Steroid Resistant Asthma - LBI allows for the reduction of the steroid dose in a majority of patients. LBI normalized both monocytes chemiluminescence and cell oscillation in asthmatic patients significantly earlier than in cases of ordinary treatment…

Paleev, N.R., et al., "Influence of He-Ne laser blood irradiation on morphofunctional state of monocytes in asthmatic patients", Proc. SPIE Vol. 2630, p. 142-146, 1996

Russian physicians consider UBI to be the treatment of choice for bronchial asthma - Russian researchers who treated 88 adult bronchial asthma patients with UBI found they achieved a good effect in 90.9% of the cases with early-stage asthma, 78.9% with mid-stage, 65.9% with severe, persistent bronchial asthma. These are not counted as cures. But there was a:

- Reduction in difficult or labored breathing
- Reduced flare-ups
- 2X reduced drugs
- Decrease or elimination of glucocorticoids
- More rapid improvement than on drug treatments

Vetchinnikova ON, Piksin IN, Kalinin AP (2002). Extracorporeal ultraviolet blood irradiation in medicine. Moscow: Izdatel Evgeniia Razumova. p. 263.

UBI Considered a Success Story for Asthma - Another telling piece of internal evidence is the consistency of the results of the Vladivostok bronchial asthma trials. Over 500 patients were in the trials. In four trials in a row involving many hundreds of patients, UBI repeatedly outperformed LBI in exactly the same way. Bronchial Asthma must be considered one of the big success stories of UBI.

Sukhanova, G. I. (1993). *Laser Therapy in the Far East [Russian*]. Vladivostok: Dal'nauka

– CHAPTER NINETEEN –

Digestive/Kidney/Internal

Areas Covered

1. Bile Duct/ Gallbladder disorders
2. Cholecystitis
3. Pancreatitis
4. Inflammation of the abdominal cavity membranes
5. Kidney disease

1. Wide variety of biliary diseases handled

Bile Ducts - Biliary Disease - diseases affecting the bile ducts, gallbladder, and other structures involved in the production and transportation of bile.

These conditions include gallstones, acute calculus cholecystitis, acute acalculous cholecystitis, Mirizzi syndrome, chronic cholecystitis, cholangitis (recurrent pyogenic, primary sclerosing, primary biliary, autoimmune), biliary tract malignancies, biliary tract cysts, and others.

Biliary Disease encompasses a wide spectrum of disorders caused by abnormalities in bile composition. Dr. Olney treated 383 patients with this disease in the mid-1940s. Three were almost moribund, and five very severe, 264 chronic without stones, 56 chronic with stones, 55 had chronic cholangitis and hepatitis, with the gall bladder previously removed.

The three almost moribund all recovered; 2 left the hospital in 24 and 18 days and were in good health one year later. 4 of the 5 of the severe recovered without an operation. The others in the groups had good recoveries, some with operations. He reported that UBI had great effects in limiting peritonitis, ileus, pain, pulmonary complications, and phlebitis.

Olney, R.C. (1946). "Ultraviolet Blood Irradiation, Knott Method, in Biliary Disease," American Journal of Surgery 72:235-237

110 Patients did a lot better than controls - In 1950, Dr. Rebbeck reported similar successes comparing 110 patients who had UBI with 226 patients who did not.

Excessive nausea, vomiting	UBI - 2.7%	Control - 33.1%
Excessive abdominal distension	UBI - 11.8%	Control - 28.8%
Temperatures above 102	UBI - 15.4%	Control - 32.3%
Mortality	UBI - .9%	Control - 2.2%

Rebbeck, E.W. (1950). "Use of Ultraviolet Blood Irradiation (Knott Technique) in Biliary Tract Surgery," American Journal of Surgery 80:1: 106-112

2. Inflammation from gallstones

Cholecystitis (inflammation from Gallstones**) -** Postoperative in elderly patients was studied.

- Control Group of 16 received standard drugs
- Group 2 of 20 received extracorporeal x-ray radiation of blood
- Group 3 of 20 received UBI
- Group 4 of 19 got donor blood that had a type of UBI

Study showed that all three groups had better results than the control. This study had diminishing effects because of its lack of objective basis of comparison.

Mumladze, R.B. et al. (1994). "A Comparison of Different Methods for Quantum Hemotherapy in Treating Complicated Forms of Acute Cholecystitis in Middle-aged and Elderly Patients [Russian]," Vestnik Khirugii 152:1-2:112-5

Acute Cholecystitis - Another study had 45 healthy controls and 130 patients with acute cholecystitis. One group of 85 received LBI, and another received 40 standard medications. Researchers found that LBI was significantly superior to standard therapy.

Sukhanova, G. I. (1993). Laser Therapy in the Far East [Russian]. Vladivostok: Dal'nauka

3. Tissue Killing bacteria in the Pancreas

Pancreatitis - Fourteen cases of necrotizing pancreatitis. Ten were diagnosed with hemorrhagic pancreas necrosis, while eight were in serious condition with symptoms of enzy-

matic toxemia. No controls were used during this study. After a barrage of other therapies failed to produce results, they were given 1ml per KG of bodyweight of UBI donor plasma. Levels of enzymatic toxemia dropped by more than two times to near normal levels only 5 to 6 hours after the infusion. Insulin resistance declined, and other indicators improve. *(Markov, 28-29)*

Markov, I.N., Chudnykh, S.M. and Kolesova, O.E.,"Use of Donor Plasma Irradiated with UV in the Therapy of Destructive Pancreatitis [Russian]", Khirurgiia (1994), No 3, pp 28-29

Acute pancreatitis - In another study, 65 patients with acute pancreatitis were treated with an average of 1.5 UBI treatments pre-and post-operative. Some were treated with UBI and had no surgery. Researchers found that in UBI patients – appetites improved, tachycardia lessened, fever declined, and lab results normalized. Evidence of immune-stimulation was present with no side effects from the UBI. No controls were used.

Filin,V.I., Koval'chuk,V.I., Kravets,V.N.,"UBI of Patients with Acute Pancreatits [Russina],"Klinicheskaia Khirurgiia 11 (1984), pp 28-29

Chronic and acute pancreatitis - In a third study with 60 patients, 47 had chronic pancreatitis and 13 acute pancreatitis; patients received 5-7 LBI treatments following the failure of standard drugs. 92% saw pain reduction and vomiting, 83% lessened nausea, 87% improved appetite, and 83% reduction of belly distention. As an indicator of the improved functioning pancreas, in the acute cases, the level of amylase in the urine dropped from 1826.82 +/- 401.4 to 52.77 +/- 4.9 g/l ($p<.05$) *(Izhevsk, 63-64)*

Izhevsk,"Use of Low-Intensity lasers in Experimental and Clinical Medicine [Russian]"(1994) pp 63-64

In early American studies, UBI suppressed inflammation, relaxed the sphincter of Oddi, and returned amylase and lipase values to normal.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). *Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997* Silver Spring, Maryland: Foundation for Blood Irradiation.

4. Peritonitis – Inflammation of the abdominal cavity membranes

Peritonitis Success - Some early American studies in 1942 with 72 patients (no controls), with 29 who had tried and failed sulfa therapy, were divided into three groups. All were treated with UBI.

40 with general peritonitis
20 with abdominal abscesses
12 females with multiple pelvic abscesses and severe pelvic peritonitis.

UBI Prevents Death - 43 had moderately advanced peritonitis, all of these recovered after UBI treatments. Twenty-nine were apparently moribund; of these 9 out of 17 recovered in the first group, 4 out of 7 of the second group, and 6 out of 9 of the third group. The other moribund patients died; two had sigmoid carcinoma. The researchers noted that UBI treatments rapidly resolved paralytic ileus and led to rapid detoxification.

Miley, G.P., Rebbeck, E.W. (1943). "The Knott Technique of Ultraviolet Blood Irradiation as a Control of Infection in Peritonitis," Review of Gastroenterology 10:1:1-28

Disseminated Peritonitis – A more recent study of 35 patients with disseminated peritonitis found that UBI treatment reduced the mortality to 4 out of 35 vs. 10 out of 37 in the control group who were treated with standard combination therapy but without UBI. The UBI group also saw a sharp increase in the number of T-cells (60%), as well as a decrease in circulating immunocomplexes (36.5%). Patients received about three treatments each. *(Ashurov, 44-47)*

Ashurov, B.M, et al., "UBI in the Treatment of Disseminated Peritonitis [Russian]", Khirurgiia (1997), No 4, pp 44-47

5. Kidney Disease

Chronic Glomerulonephritis - A study on kidney disease consisted of 12 patients with chronic glomerulonephritis being treated with LBI. Favorable results incurred; Proteinuria dropped from 1.34 to 0.71. Then seven patients with hypertonic disease saw a reduction in systolic blood pressure from 180 to 145 and diastolic from 118 to 88.

Izhevsk, "Use of Low-Intensity lasers in Experimental and Clinical Medicine [Russian]" (1994) pp 63-64

LBI treatment in 61 chronic pyelonephritis patients, 67.4% with urolithiasis, and 32.6% with adenoma of the prostate.

Group 1 – received standard antibiotic therapy	– success rate 20.0%
Group 2 – 11 received local laser therapy	– success rate 57.1%
Group 3 – 33 received LBI	– success rate 64.3%

Researchers concluded that LBI showed "bactericidal action, activated the metabolism of substances and improved microcirculation and rheological properties of the blood. It leads to the removal of all hypoxia; it affects the release of a cascade of the patient's own central and peripheral autoregulating systems adaptation, which medical substances do not."

Neimark, A.I., Malazoniia, Z.T., and Karabasova, E.B., "The Capabilities of Local and Intervascular Laser Irradiation for Removing Immune Deficiencies in Patients with Chronic Pyelonephritis [Russian]," Urologiia I Nefrologiia (1995), No 2, pp 27-29

– CHAPTER TWENTY –

Mental Disorders

It may seem to be a stretch to think that "powering" the blood with light would be beneficial for neurological disorders. Think again. The Russians have been using this therapy for decades in such things as petit mal seizures, schizophrenia, and anything that may block microcirculation to the brain.

More common in the US is electroconvulsive therapy. ECT is also called Electro-shock therapy. It was first used in 1938 by an Italian psychiatrist. This is a go-to therapy for those with major depressive disorder, mania, and catatonia that do not respond to drug treatments. It seems to be effective for about 50% of the people with a treatment-resistant type of disorder.

This therapy does work, but 50% relapse within six months.

Areas Covered

1. Microcirculation/vasodilation and increased oxygen uptake
2. Dementia Diminished
3. Clinical Depression

4. Migraine Headaches
5. Schizophrenia
6. Cerebral circulatory problems
7. Neural system circulatory problems

1. What does UBI do?

Read How UBI Helps the Brain - Microcirculation improvement is a critical feature of the effects of UBI in brain disfunction and in Peripheral vascular disorders. Increasing oxygen uptake is another benefit in reducing the effect of brain disorders. Talking about microcirculation is talking about the blood going through the smallest blood vessels of the body. The brain, along with most all organs and tissues, has a bed of capillaries that allow the exchange of oxygen and carbon dioxide, nutrients, and wastes.

This marvelous, intricate system of the body is at the core of life. When microcirculation is limited by any number of issues, it causes decreased cellular oxygen, and anaerobic metabolism can occur. The inability of the waste to move freely exacerbates the problem situation.

Tissue perfusion is the term that describes the passage of fluids through the circulatory system or lymphatic system. It usually refers to the delivery of blood to the capillary bed. This can be in the brain, kidney, placenta – anywhere that oxygen is needed, and waste products need to be removed.

You can see a bit of how increasing oxygenation to the brain can have excellent effects. Cerebral perfusion is critical to our thinking and our life. Chronic inflammation is also a factor in the brain and can be a causative factor in neurodegenerative diseases such as Alzheimer's disease. That is why UBI and LBI have had some excellent effects when used consistently with brain disfunction.

Miley, G.P. (1939) "The Ultraviolet Irradiation of Auto-transfused Human Blood: Studies in Oxygen Absorption Values", American Journal of Medicine Sciences, June 1939, p 873.

2. Dementia Diminished

> ***Dementia Helped*** *- One afternoon in June of 2009, we received a gentleman of over ninety years into our clinic. His son, who was a friend of ours, brought him in, and immediately we could see the discomfort he was living in. His arms were covered in sores, and he had been diagnosed with dementia. In an effort to improve his quality of life, they thought they would give the UBI treatments a shot. After just two treatments, not only did the skin sores disappear, but he spoke in sentences for the first time in nine months, he was able to recognize his kids, get in and out of the car by himself, and resumed using the bathroom by himself. I am not saying that he was cured, but that his quality of life drastically improved for a time because of improved oxygenation, better rheology of the blood, vasodilation, and greater microcirculation."*
>
> *Taken from DrsUBI.com*

3. Clinical Depression

Depression can be treated with UBI - "Positive clinical dynamics are registered in 57% of patients, as well as in 64% of the cases where the normalization of psychological and psychophysiological indicators was observed. The efficiency of ILBI (Intravascular blood irradiation) is not the same with different options of the depressive syndrome. The improvement of the mental condition was observed:

70.6% of patients with melancholy-depressive syndrome
53.8% with anxiety-depressive syndrome
39% with apathy-depressive syndrome.

The improvement of the mental condition of patients during low-level laser therapy is accompanied by the normalization of the nonspecific resistance system indicators. In the case of positive clinical dynamics, the reduction of the frequency of adaptive reactions of a pathological type went from 52.6% to 10.6%, and a decrease of the level of malondialdehyde in plasma is observed.

Moskvin S.V., Khadartsev A.A. *Laser Blood Illumination. The Main Therapeutic Techniques*. – M.–Tver: Triada, 2018.

4. Headaches

Striking Improvement - UBI energy seems to pass through the blood-brain barrier. This is an advantage over some drugs. Although it is not a "slam dunk" therapy, as it seems to be more with infections, there have been a number of positive studies regarding help with migraines.

In his years as a practitioner, Dr. Miley treated patients with migraine headaches. He reported that from one such study, he had "12 patients suffering from classic, longstanding migraines." The UBI had to be continued every six to ten weeks from one to three years, during which time migraines did not occur in seven of the individuals.

Miley, G.P., Olney, R.C., Lewis, H.T. (1997). *Ultraviolet Blood Irradiation: A History and Guide to Clinical Application 1933-1997*) Silver Spring, Maryland: Foundation for Blood Irradiation.

Controlled Study on Migraines - In a much more controlled fashion, the German researcher Dr. K. Taubert used UBI extensively in the treatment of migraine headaches. He conducted several comparative trials with a placebo to make sure that UBI was doing the job. His paper shows that out of 21 migraine patients:

2 totally free of complaints
5 significant improvement
6 some improvement
8 no change

His closing comment was, "UBI is clearly superior to placebo treatment, and thus, its efficacy is based on physiological effects." From his continued studies, 60-80% of migraine patients benefited from UBI.

Taubert, K. (1991) "Ultraviolettbestrahlung des Blutes bei der Migraene." Zeitschrift Aerztlicher Forbildung (Jena) 85 1-2):43-8

Migraines Normalized - Another German researcher in 1989 found much the same effect as above. Dr. G. Frick found that patients he treated for migraine headaches experienced normalization of the menstrual cycle and conception as a side benefit.

The lessening of headaches is quite common in the literature as a side effect; whether they were treating cardiovascular issues or preeclampsia, the lessening of headaches – in particular migraine headaches, was a great benefit.

Frick, G. (1989). Fibel der Ultrviolettbestrahlung des Blutes. Ernst-Moritz-Arndt-Universitaet Greifswald

5. Schizophrenia

Schizophrenia is a serious mental disorder in which people can interpret reality in an abnormal way. There are a number of ideas as to the cause of this. Genetics, brain chemistry, and environmental factors may all contribute. One area that UBI deals with is the balancing of the systems namely, improving microcirculation of fluids, including oxygen delivery and toxin removal. Certainly, UBI is not a sure-fire treatment for schizophrenia, but the evidence indicates that it is a therapy to try. It is safe and a non-drug.

Blood Flow changed Amount of Drugs Taken - One study done on schizophrenia in Russia showed that light in blood therapy influences the central and regional hemodynamics (blood flow) and has sedative, anxiolytic (lessening of anxiety), and antispasmodic effects. The amount of drugs taken and the treatment period are reduced.

Kartelishev A.V., Vernekina N.S., *2000 in Laser Blood Irradiation.*

Depressive-Paranoid Group Majorly Helped - With a group of patients, again in Russia, at a neurological and psychiatry institute, LBI was positively used to reduce symptoms. Many were labeled as simple or paranoid schizophrenia and had a range from 1-23 years of having the disorder.

Many had been on a drug regimen that had lacked results, and even electroconvulsive therapy for some was ineffective. Although very short exposure times were given to the blood, there were still good responses.

21 out of 38 (55%) responded well. The best results were with the depressive-paranoid group, but less effective with the hallucinatory-delirious group (8 out of 19) at 41%. In general, there was:

- Reduction of delirious ideas
- Reduction of hallucinations
- Lessening of monotonous motor behavior
- Moods improved
- Interest in surroundings increased
- Social contact in desire and action improved

In returning to normal life, they had more ability to adapt and have acceptable behavioral actions. Some returned to work.

The study went on to say that patients with a constant parasympathetic low-level activity of the autonomic nervous system could benefit from LBI, but with the sympathetic nervous system, LBI was only in combination with appropriate drugs.

Moskvin S.V., Khadartsev A.A., Laser Blood Illumination. The Main Therapeutic Techniques. – M.–Tver:Triada, 2018. Moskvin S.V., Khadartsev A.A.

LUBI's effectiveness against schizophrenia with depressive syndrome is clearly attributable to its ability to unblock microcirculation in the brain by destroying activated white blood cells and platelets. This finding may provide the answer to the old riddle of the mechanism of action of Electroconvulsive Therapy: ECT may have exactly the same effect on white blood cells and platelets. In turn, this suggests that UBI is both safer and more effective than ECT and that it can successfully treat certain patients resistant to ECT.

Kutko, I.I.,V.V. Pavlenko, and E.G.Voronkov (1992)."The Use of Intravascular Laser Blood Irradiation in the Treatment of Forms of Schizophrenia Resistant to Therapy"[Russian], Zhurnal Nevropatologicheskoi Psikhiatrii Im. S.S. Korsakova 92:4:53-56

6. Cerebral circulatory problems

Fifty sailors Got Heads Cleared - ages 40-60 with early-stage cerebral circulatory problems were treated with UBI. Patients experienced subjective improvements – heads cleared, the feeling of weight on their heads disappeared, tinnitus ceased, felt more ready to work, mood improves, and sleep normalized. Without controls, this study is interesting but diminished.

Lobenko, A.A. et al."Vegetative Mechanisms of Initial Appearances of Insufficiency of Cerebral Blood Circulation and a Method of Correcting Them [Russian]," Likarska Sprava (1993), No 1 pp 77-79 H

7. Neural system circulatory problems

Excellent Results - Russian researchers have reported excellent results with UBI in the treatment of neurological disorders. Berdichevskii and Dashkovskaia (1991), for instance, treated 90 patients aged 47-69 with atherosclerotic, hypertonic, and venous circulatory dysfunction refractory to other treatments or gaining only short remissions with them. There were 35 controls. 4-8 UBI treatments were given. Positive results were obtained with 87 percent of patients, including a full resolution of 51.2 percent of the neurological symptoms of the 37 atherosclerotic patients. UBI treatment caused the disappearance or significant decrease of headaches, dizziness, tinnitus, feeling of heaviness in the head, pain in the heart region, etc. Sleep was normalized as well. In most positive cases, the results were long-lasting or permanent.

Berdichevsky, M. Ia., and Dahkovskaia, E.M. (1991)."Effectiveness of the Complex Treatment of Cerebrovascular Disorders by Ultraviolet Irradiation of Autologous Blood [Russian]," Zhurnal Nevropatologicheskoi Im. S.S. Korsakova 91(1): 75-8

– CHAPTER TWENTY-ONE –

UBI and Cancer

UBI is an Adjuvant Cancer Therapy

UBI is easy to consider as front-line therapy for many disorders. Many people use UBI as part of a cancer therapy. My contention is that it is not a primary cancer therapy but adjuvant. It can stimulate the immune system. It can cut some inflammation, and it can cause oxygen uptake to increase. These are all good things.

My son had a brain tumor. He died from it in February of 2018 after many long years of varied therapies. It was part of the impetus causing me to have studied ozone and UBI for years. I have talked with scores of physicians and visited their clinics. I have a number of friends that run cancer clinics. Countless hours have been spent reading much of the scientific literature. I have a briefcase full of alternative medicine cancer cure books. It has also been a privilege to teach alongside today's leading alternative medical experts. I'm sure that every physician would love to be able to say, "I know that UBI will cure your cancer," and really know that it is true.

UBI is one tool in a box of tools. It is not a Silver Bullet! UBI accomplishes healing in some unique ways. Does UBI cure cancer? This question begs a number of other questions. What kind of cancer? What is its stage of progression? Has chemo or radiation been used? Are there other factors that allow cancer to develop? Are there toxins? Is there emotional stress? Etc.

There are a lot of reasons to use UBI therapy in a physician's office. Hoping that UBI alone will cure your cancer is, in my opinion, is…misguided.

Sitting in lectures around the world on cancer and alternative medicine has broadened me. Perhaps it has made me somewhat skeptical about how people handle information about this easy, effective therapy. It is a therapy, not a cure-all.

Let's start with the aspects of UBI therapy that can have a positive effect on cancer:

- Anti-Infection properties are stimulated
- Blood circulation increase, and oxygen delivery and uptake improved
- An uptick of metabolism – more energy
- Antioxidant increase – great for healing
- In T cell

Cancer Cured

Robert came into my office one wintery day to learn more about UBI. His wife had been dying of cancer. A friend told him about the treatment and they both seized upon it as a possible cure. After a series of 20 treatments over a 6-month period, the cancer disappeared. She lives today years later and proclaims the efficacy of UBI for cancer. I know that UBI is an immune modulator. It can help the immune system to do what it is supposed to do. Can UBI cure cancer? Robert says that it does.

disorders as in Cutaneous T-Cell Lymphoma, UV light therapy is FDA approved *

- Quality of life is improved

Is that it? Is that all it does for cancer patients? Actually, for a non-drug, it is quite a lot. It is why some cancer patients feel and actually get better after repeated UBI therapy sessions.

UBI has been used in cancer clinics for the last 50 years. When talking about cancer, the patient needs all the immunological help they can get. UBI is an alternative therapy that should be used with almost all cancer patients.

There are thousands of people who have used UBI in any number of ways and seen success.

Malignant Melanoma

"D.P., a 30-year-old male, was admitted to the hospital with a diagnosis of generalized malignant melanoma (a virulent form of skin cancer). Eleven years previously, a malignant melanoma had been removed from his right upper arm. When admitted to the hospital by Dr. Olney, he had a tumor mass under the skin in the upper left chest just below the collar bone. Excision and biopsy revealed that the malignant melanoma had returned. He quickly developed metastases (tumor spread) all over his body, and his abdomen became very large from tumor growth. He had difficulty in breathing, had a constant cough, and was obviously in serious condition. He was blue in the face, and cancer could be felt throughout his abdomen.

The patient was given ultraviolet blood irradiation (UBI) therapy immediately and approximately every three days for about one week and then weekly. Within three weeks, the large tumor mass in his right armpit had disappeared as well as a tumor on the right chest wall; the abdomen became definitely smaller,

> *and the tumor masses much less palpable. At the end of six weeks of treatment, the patient had no difficulty in breathing; his right leg, which had been extremely swollen, was normal and free of pain; and the abdomen had returned to normal size with no fluid or tumor masses palpable."*

Robert Rowen commented on Dr. Olney's cancer "cures" as follows:

> *"In 1967, Robert Olney privately printed a short, undated pamphlet sent to me by a friend, and entitled Blocked Oxidation, in which he presented 5 cases of cancer which were cured by a combination of techniques, including ultraviolet blood irradiation. . . .Utilizing detoxification techniques, dietary changes, nutritional supplements, the Koch catalyst, and ultraviolet blood irradiation, he reported the reversal of generalized malignant melanoma, a breast cancer penetrating the chest wall and lung, highly metastatic colon cancer, thyroid cancer, and uterine cancer."*

Rowan, RJ. "Ultraviolet Blood Irradiation Therapy (Photo-Oxidation) The Cure That Time Forgot", Int J Biosocial Med Research 1996;14(2):115-132.

Cancer Can Go into Remission

An interesting consideration is that up to 13% of all cancers can undergo spontaneous remission. If they had happened to be juicing, doing saunas, coffee enemas, or taking certain supplements, these people could well claim that "whatever" saved my life.

Patients do tell me of their being "cured" by UBI. Some have been for years. Others took UBI treatments and had a much better quality of life and an extension of life, but they did finally

succumb to cancer.There are dominant themes that accompany almost every alternative medical cancer conference. Beating cancer takes multiple activities. An easy acronym is LINDA.

LINDA for cancer

Any practitioner worth his salt will tell you that battling cancer is a whole body, mind, and spirit approach. This must seem like so much repetition to many of you, but here goes.

L - Lifestyle

I - Immune system

N - Nutrition

D - Detox

A - Attack the cancer

Out with the Bad and In with the Good

L is for Lifestyle – This almost goes without saying. Your lifestyle affects your health. Smoking, drinking, drugs, diet, attitude, stress, lack of exercise, lack of sleep, contaminants, toxins, and more all have an effect.

"I have had breast cancer for a few years. I started out with conventional treatment. A right mastectomy followed by chemo. I decided that I would no longer be willing to take any more chemo and I wanted to use alternative treatments. I noticed that my symptoms were worsening. I went in for a checkup and the cancer is now in my jaw, my brain, my lung, and my lymph nodes.

I had heard about Health 1 Clinic from a friend. I started UBI treatments along with a supplement. Usually my cancer markers only fluctuate by 5-10 points per month and in 2 weeks of treatment my markers dropped 69 points. I actually said to the staff 'I think you are killing my cancer too fast!' I am very pleased with my progress."

Teresa

This area is very broad, with a lot of different effects on health.

Bad – lethargy, depression, stress, drugs, alcohol, bad EMFs, junk food. Most of us know the things that are not healthy for us.

There are so many good books that deal with these issues. Here are a few authors that you will want to check out.

- "Killing Cancer not People" – Robert Wright
- "Beating Cancer with Nutrition Book" - Dr. Patrick Quillin, PhD, RD, CNS
- "The Truth about Cancer" – Ty Bollinger
- "Outsmart your Cancer" – Tanya Harter Price
- "Knockout" - Susanne Summers,
- "Cancer Revolution" - Leigh Erin Connealy
- Trilogy of health books – W. Lee Cowden and Connie Strasheim
- "Cancer Free – Are you Sure" - Jenny Hrbacek

These books outline in detail a number of factors in managing cancer.

There are other good things also like a good diet, air, sunshine, and exercise. Often overlooked is the area of emotions. Unresolved issues add to the already taxed immune system, like a car that has low tires, worn tire rods, rust in the gas tank, or a broken CV joint, etc. If you just work on tuning up the motor, the car will breakdown anyway. If all you do is look for some cancer cure and never deal with the other areas of your life, you are bound to "breakdown." Here is a short list under the L category:

- Reduce Stress
- Cut out Sugars – Some say dairy
- Exercise
- Sunshine and Vitamin D

- Eat Right
- Get rid of Toxic Teeth
- Enjoy life
- Be Thankful
- Just to name a few…

Also under lifestyle are the issues of the spirit

- Realize that you are not alone
- Be a fighter – have a will to live
- Get a good support person
- Laugh, relax, plan it, and do it
- Relieve stress – it is medicinal
- Don't live by emotions – live by truth
- Remove conflicts – forgive, reconcile
- Find peace that passes understanding
- Use a Dr. that encourages this
- Acknowledge God, Prov 3: 5,6

There are many good websites that deal with cancer. I especially like www.Cancer-Active.com

I have a friend with stage 4 cancer. She has tried many of the alternatives and with good success. She has had stage 4 cancer with bone metastasis for 7 years now. That is 7 years of good family life, seven years of seeing kids grow, go to college, get married, start jobs, and spend time with her husband. The cancer is closing in no matter what has been done. She has had a great quality of life. Yes, some pain, some flare ups, and who knows what will happen next? Every cancer person should consider quality of life. UBI is one of the things that should help with this.

I – Immune system

Boosting the immune system is critical. If your immune system is damaged, then you cannot fight back what ills that might be coming at you.

Often it is said that all of us have cancer cells circulating in our bodies, and it is just waiting to see a weak area in the immune system. Our immune system protects and defends against these malignant cells, along with other infectious bacteria and viruses.

- Improve cellular energy and immune function – ozone and UBI
- Depletions abound – Vit D, Vit C, Magnesium, trace mineral – look into Quinton water®
- Fight inflammation and low-grade infections – diet, silver, UBI
- Building the inner terrain – see lifestyle
- Oxygenate – oxidative therapies. UBI and ozone comes in here.
- Increase macrophage and T-cell activity – diet, exercise, supplements
- Realize that chemo and radiation act as an immune suppressant

N as in Nutrition, Diet, Supplements

- Seasonal Affective Disorder - get sunshine and work on mood
- You should be familiar with the Vitamin D chart and your D levels [A]
- Selenium, sea salt, iodine, green juices are all good
- Veggies – eat the rainbow of colors
- No or low sugars
- Individualized Program – read the books, get with your physician
- Eat less, eat more often, eat more veggies
- Good balanced, complete vitamins
- Co Q 10, glutathione
- Alkaline diet may help

- Curcumin, omega-3
- Digestive enzymes
- Glycemic index – balance

D for Detox

- Ridding the body of those things that create a "hostile to healing" environment
- Sauna – sweating
- Water – ½ of your weight in ounces each day
- Bowel health – regular and often
- Bringing in the best – air, water, food
- 7-8 Hours of good sleep
- Meditation
- Breathing
- Low EMF exposure

Get rid of the bad

- Poor food nutrition
- Electromagnetic fields
- Toxic emotions
- Polluted Air
- Pesticides
- Biotoxins
- Allergens
- Mold

A is for Attack the Cancer

There are so many diverse ways to attack the cancer. This is where a trained, practicing cancer physician can really help. I live in a state where there a quite a few alternative physicians, but they do not specialize in cancer. Conventional medicine would

not be my first choice. I would fly across the country to find a physician that I trust.

Dr. Garry Gordon – A strong advocate for the patient and dubbed the "Father of Chelation," recommends that each conversation with your physician should be recorded. You **will** forget what was said. Record it, and you can go over in detail the exact things that the physician is laying out for your most important therapy.

I would also do my own diligent research. The internet can be a great tool to look up studies and therapies. Most of the information will be about conventional medicine. It is great to know some of the information regarding a particular therapy. Don't just read the website regarding the ads for a certain drug or drug company. Go to **pubmed.com** and find out the actual studies. Many cancer patients are not up for this kind of rigorous research. This is where a trusted friend can really assist in the process. Knowledge is a form of power. Be armed with accurate knowledge.

It is not my intention to denigrate any of the dedicated researchers, healthcare workers, and physicians who have been on the front lines of helping battle cancer. The problem does not seem to be individual people but a system that is gone awry. According to many over the last 50 years of research, experiments, trials, and millions of patients, there has only been a 2% increase in the longevity of cancer patients. [B]

Basically, the article says that almost all of our efforts to control cancer with conventional medicine

My Dad Died at age 83 of Cancer

He did not want the "latest" treatment as he told me "I see my friends get cancer, take the therapy, be sick for a year, and then die." He just wanted to live his life as best he could with a clear head and die when it was his time. He lasted a bit over a year.

have failed. We are not winning the war on cancer that President Richard Nixon set out to do back in 1971. We have created a large industry.

Dr. Connealy has a few questions from her book "Cancer Revolution" (pages 157, 158) that may be good to ask. I have modified them slightly.

1. 1) What factors do you base your treatment regimens on? How does this apply to my situation?
2. 2) Do you prepare a specific diet plan for each patient and tailor it to their unique needs?
3. 3) Do you include detoxification elements? If so, what and why would that fit me?
4. 4) Do you include stress reduction and other mind-body-spirit healing tools in your regimen?
5. 5) What innovative techniques do you use for a patient like myself? Where did you learn about it?

"The Cancer Revolution: A Groundbreaking Program to Reverse and Prevent Cancer" Leigh Erin Connealy

Questions that need Answering when Medical Statements are Made

- What does "improvement" mean? How is it measured?
- Did it just take in tumor reduction, or did it include quality of life?
- How do we know it can be used with other drugs? Was it tested?
- Who is making this statement? What is their bias?
- Are there contrary studies?
- Can I talk to 3 others who have done this?
- If I follow your recommendation, what percentage failed to be helped or helped only minimally?

- Are there natural, non-drug treatments that work? Have you investigated them?
- Is there some scientific evidence, or is it all anecdotal (patient stories)?
- Would you do more research if it was a close family member who had my problem? Where would you look?
- What is your experience with this therapy? Is it just palliative, or is it curative? Why do you say that?
- With the stage of cancer that I have and the health that I now possess, what is your estimate as to what will happen if I follow your therapies for the next six months?
- What is this going to cost?

All areas of LINDA are critical for a full and comprehensive approach to cancer. It is your life, and taking time to get all of the facts straight is important.

Quality of life

This issue is commonly addressed in conventional medicine. Unvarnished honesty is rarely desired by the physician and usually not by the patient. In a race to live a few months or perhaps a year longer, all kinds of toxic therapy are undertaken.

Would it not be better to say: "This therapy **may** extend your life by up to 6 months, BUT you will most likely be sick most of the time, lose your hair, and damage your immune system. It may give you raw open sores, vomiting, and diarrhea, but if you live through the treatment, you may live a few extra months.

Patients want to hear that there is hope. Hope is a great healer. Unfortunately, if you have false hope, it does not change

the outcome. Would you do the therapy if 95% of those who had taken it would say, "I would never choose that over again," just before they die?

Go on the web and research the history, the outcomes, etc. Be smart! If you cannot do it, get a life coach, a caregiver – someone who can do the research. Someone that you trust. As a father, as a researcher – don't just ignore this and listen to anyone who wears a white coat and has a fancy office that cancer treatments have purchased.

A Comment regarding the Internet

I love the internet. It has opened windows of research that were previously impossible. On it, you can read that cancer cures have literally been unchanged in 50 years of research and supposed improvements. Modern medicine has done worse than fail. They have created a financial monster that needs to be fed every day. We look back and say some medical practices were barbaric. We will say the same regarding the failed but continued use of many cancer treatments of our day.

INSANITY

Doing the same thing over and over again and expecting to get different results.

Albert Einstein

As I write this, another death occurred locally of a young mother with very treatable cancer. She was "overdosed" with chemo and died an excruciating death in a matter of hours. Since it was "standard of care" – just too fast, too much; it will be written off as "The heroic doctors did all they could do to save her." It is heartbreaking.

So, what about reading about cancer cures on the internet? You will also read that you can cure cancer with baking soda,

cottage cheese and flaxseed, magnetic currents, and 100 other things. What do you believe? Again, I recommend a good alternative cancer physician and a faithful caregiver, and a lot of personal research.

So why should a cancer patient use UBI?

For general health and quality of life, UBI does some marvelous things. Some patients are "cured" as their body gets stronger, their immune function increases, and metabolism increases. There have been some negative comments in this chapter, but for the patient reading this section, you should not be discouraged. You just found out some different information that may be helpful in your understanding.

One more comment. I do not want to sound morbid, but I am going to die. You are going to die. We want all of the good years that we can get. They are a gift from God that we should take very seriously. But really, all of us are going to die. I am not a good evangelist, but I have learned that we can not only be ready to die but anticipating "life after death, afterlife."
We fear the portal of death, but with Christ, the outcome is fantastic. It is what we were made for.

*read about T Cell Lymphoma and FDA approval of Therakos Photopheresis in Appendix D

Links

A. https://www.grassrootshealth.net/document/disease-incidence-prevention-chart-in-ngml/

B. http://www.townsendletter.com/AugSept2010/cancerprogram0810.html

– CHAPTER TWENTY-TWO –

Advocate for Your Health

The TV ad shows a middle-aged woman who is worried about her medical condition. It raises the question of her possible death as it shows a heartwarming video of her family and work. The commercial assures her that there is a new drug that will do "better" than the old drug. She can rest assured that it is FDA approved and move forward with new confidence then. As the video continues viewing a pleasant, full-of-life family and enjoyment, the voice-over talks while the wonderful life is portraited, pointing out all of the risks for about one-half of the ad time. Tingling, numbness, bleeding, heart attack, severe rash, infection, cancer, nervous system problems, and or death may occur.

Who can you trust for medical advice? If you have a major medical problem, that question should be haunting us to the point of doing our own research. We have the internet; we have tons of research available at our fingertips. Perhaps you are not the type. You cannot decipher studies and their content. Besides that, you feel sick. That is when you need a trusted friend or a knowledgeable caregiver. We are great at researching the prices of a restaurant, especially if there is a special, yet we often hand

over of body (and soul) to men in white coats with a stethoscope draped over their shoulders.

Don't Just Hand Over Your Health Care Decisions Without Some Research On Your Part

Years ago, I sat in the oncologist's office with my late son Matt. Matt had a brain tumor (oligodendroglioma) from a young age. He was then 40 years old and had endured five painful surgeries and the ensuing recovery and rehabilitation. He lived with this without complaint. He was a great Christian example. For most of those 20+ years, he was away from home – married with a family. Then that ended, and he came to live with us – damaged but 80% functioning.

This was a rare occasion that Matt allowed me to be with him at the oncologist's office. Although he was involved with me and the world of complementary/alternative medicine, he put never took the plunge to research it himself. He grew up with the white-coated experts and just did what they said.

Being with Matt in the office, I realized how little Matt asked questions, and because of his deficiency, how little he really took in. The younger physician recommended a round of chemo drugs. I asked the physician, "The chemo that you are recommending – I researched it and the **studies were not** for oligodendroglioma and also it only showed a couple of months life extension and also has some potentially awful side effects…. Is that right?

Yes, that is correct?

Why would you prescribe this to him?

"Well, it might have some good effect." End of discussion. That was it ….it might have some good effect! Where is the science in that? The cost of that drug was tens of thousands. I

asked Matt about it later, and he remembered little of the 15-minute conversation. He did not end up doing that therapy. In February 2018, Matt went home to be with his God.[D]

Headlines that Should Shock Us

Critics of today's medical, scientific studies come from within their ranks.

1) Medical studies are almost always bogus [A]

"When you read something, take it with a grain of salt," Harris tells The Post. "Even the best science can be misleading, and often what you're reading is not the best science."

2) Not breaking news: many scientific studies are ultimately proved wrong! [B]

"Most theories are eventually consigned to the rubbish heap, but this is scientific business as usual."

3) Why Most Published Research Findings Are False [C]

John P. A. Ioannidis, a Professor of Medicine and Health Research and Policy at Stanford University School of Medicine, has published a report entitled "Why most published research findings are false." His theory is that most scientific studies are inaccurate as a result of bias and random error, he says, "(that it is) more likely for a research claim to be false than true."

"A huge growth area in science is linking genes with particular diseases, and Ioannidis presented an analysis of hundreds of such studies showing that in only 1.1% of cases was the linkage true. Think of that when you next hear on the radio that a gene has been found for depression, schizophrenia, or obesity. The reports suggest that a "cure" is closer, but in fact, there is probably

no true linkage at all."

Unfortunately, the US is at the top of the list for countries that produce the most misleading studies, "perhaps because the pressure to publish is greater there than anywhere." A study of 85,000 meta-analyses showed that only one had a big effect that was highly significant.

Ioannidis asks the question, "Are we doing science? Contentment with a system that encourages the publication of studies that are mostly misleading suggests that it's about careers, grants, publications, and salaries. If it's about a search for "truth," then we need more collaboration, less publishing of small and biased studies, and a heavy emphasis on reproducibility."

The medical industry is a big business, and that the bottom line for stockholders is paramount. It means continued business for one large money circle made up of government, pharma, insurance, research universities, clinics, and hospitals. It should also be noted that there are many sincere medical workers and researchers. They are trying to do their best within their system.

Name on the Buildings

We just have to look at the buildings being built to see what we cherish or what we hold out as a hope for the future. In the 1500s, it was the church. A century or two ago, there was the buildup of government. Later, huge buildings were built for the banking and insurance industry. Education and colleges are

Bias Against UBI

A notable company did FDA trials in 2016 on Hep C using UBI. They were asked to do COVID-19 trials in 2020 at their local research hospital. When they applied to the FDA, they were basically told "Your old pre-clinical trials do not work for this…start over." I was told by them that there is a definite bias against UBI and its non-drug cure.

considered the cure for what ails society, and so, the building and expansion of schools and universities. Today, huge medical facilities occupy space in every large city.

Health Spending

In spending, we are number one, even though our health ratings are lower than many others of the developed world. Massive hospitals, clinics, research centers, diagnostic labs, and pharmaceutical companies line the interstates for all to see that we are obsessed with taking drugs, doing tests, and having surgeries. In today's culture, you can easily see what we idolize - long life and health.

Why Alternative Medicine Should be Considered

The great part about alternative medicine is that, most often, the therapy is not toxic nor extremely expensive. The alternative physicians are doing their work because they have rejected the one disease, one pill theory. Most of the practitioners do not take insurance, they do not order a lot of tests, and they try to treat the patient from a number of different angles, commonly called holistically. They have spent the money and gone through the system and know the other side. Most often, that cannot be said for conventional medicine physicians.

Alternative Medicine is

- Lower Cost
- Non-toxic
- Looks for Root Causes
- Not a Part of the Big Money System

In Closing - When Medicines Have Failed

- UBI is a cure for antibiotic-resistant and all bacterial infections
- UBI is a cure for viral infections

- UBI can quiet autoimmune disorders
- UBI balances the immune system
- UBI cuts inflammation
- UBI helps with the rheology of the blood and oxygen uptake

UBI can all be done in an outpatient setting or right in the hospital room for a small amount of work and a small fee. All it takes is a needle, syringe, some saline, a little heparin, and the correct UBI machine and cuvettes.

UBI has been used to bring people from their deathbed back to life. It has been used to increase fertility and bring a healthy baby to term. It has taken away pain that has persisted for years. It is part of what alternative physicians use to help those when medicines have failed.

Whole-body health, including the mind and spirit, has been the focus of numerous physicians around the country. They look at the condition of the patient, diet, heavy metals, gut health, and emotional issues as a part of making someone well. They are truly some of the heroes of health.

Links

A. https://nypost.com/2017/05/06/medical-studies-are-almost-always-bogus/

B. https://www.theguardian.com/science/occams-corner/2013/sep/17/scientific-studies-wrong

C. http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0020124

D. www.invisiblecure.com/Matt

– CHAPTER TWENTY-THREE –

Final Words

It has probably happened to you. There is an adventure…you travel to the Orient or Europe and have a story to tell. While there, you engage in a series of greatly encouraging events, spectacular sights, perhaps form some friendships or even go through a trial. When you come back, it may be difficult to capsulize the story. Perhaps impossible.

In the "Lion, Witch, and the Wardrobe" by C.S. Lewis, the children travel to an enchanted world through the "wardrobe." The adventure takes the whole book (or movie) before they are dumped out in the upstairs bedroom in England. What an adventure…who will believe them?

They look at each other as the old professor of the house asks, "Where have you been?" "You wouldn't believe us if we told you," comments Peter. Professor Digory, unbeknownst to them, has traveled to Narnia and says, "Try me," as a wry smile crosses his lips.

In a way, I feel that I have been to Narnia and back in the last year. Reading and researching every scrap of information on UBI has changed my perspective. With deep confidence and val-

idation, both by legitimate research/studies and by tens of thousands of positive therapies, I tell you UBI IS REAL.

Many of you have traveled to the curative land of UBI and can attest to its power. Hopefully, this book has given you both depth of knowledge and encouragement of heart.

Tom Lowe

Appendix A
Innovation of UBI protocol

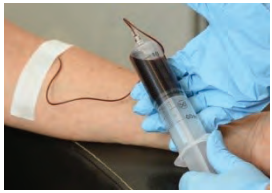
We have seen that blood does not allow light to penetrate very far – about ½ the width of a hair. The outer "film" was a major comment throughout the years regarding the Knott machine.

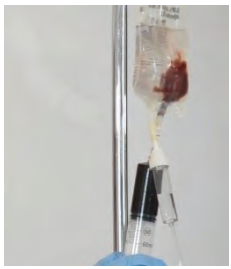
The procedure of today is quite simple.

- Knowing that we could dilute the blood and still get all of the light energy absorbed
- Knowing that we still needed a certain volume of blood/saline mix, i.e., 200-250
- Knowing that the speed of the delivery dictated the energy that was captured
- Knowing that the dilution made the procedure much easier
- Knowing that 60cc of blood in 160cc of saline gives a good therapy
- Knowing that this therapy is successful in over 500,000 treatments

Protocol

1. Add 500 IU of heparin into a 60cc syringe.
2. Using a 250ml bag of saline, insert the admin spike with attached cuvette with roller clamp shut.





3. Drain out about 60cc of saline, leaving 30cc in the lines and effectively priming the line.
4. Using a 19-21g butterfly or angiocath, draw up 60cc of blood into the syringe.
5. Clamp and detach the syringe, attach the Cuvette line, unclamp and flush saline to the patient.
6. Using an 18g needle on the 60cc of blood/heparin syringe, insert the blood into the remaining saline in the bag. Massage gently 4-5 times.
7. Put the cuvette into the machine and turn it on.
8. Set the drip speed of the site chamber to 10ml/minute and return blood/saline back to the patient as it goes by the light in the machine.
9. When finished, raise lines to drain most of the blood/saline mix back to the patient.
10. Deal with the patient needle extraction and then dispose of all products properly.

Attention: This protocol is designed with purpose, experimentation, efficacy, and safety. Physicians should not alter the procedure without consulting an expert. In the past, there have been saline shortages, and "enterprising" doctors have shorted the procedure with mixed outcomes.

Ozone: Some physicians add ozone between step 6 & 7. A common amount is 50 mcg/ml @ 60cc.

Training is available from a number of sources. www.SOPMed.org is a good place to start.

Appendix B

Frequency and Safety Contraindications

A Quick Look

How often should I use UBI? Is it safe to use daily? Can I overdose a patient? These are all important questions.

Common frequency for chronic disorders

2X per week for two weeks and once each week for two more times. Evaluate progress.

Acute disorder – every other day or every third for at least 4-5 treatments.

This is an immune-modulating therapy. It does not kill bacteria with UV light. The light is absorbed as a photon packet and travels around the body, giving off secondary energy that is immune enhancing.

Although there is no harm in doing daily UBIs, it also may not have an enhanced benefit.

Contraindications - a factor that renders the administration of a drug or the carrying out of a medical procedure inadvisable.

1. All cases with Blood Coagulation Failure
2. Bleeding Organs
3. Thrombocytopenia (low platelet count)
4. Photosensitive drug use just prior or after UBI
5. Sulfa drugs
6. Hemorrhagic or Apoplectic Stroke
7. Photodermatitis
8. Severe anemia
9. Recent Myocardial Infarction

10. Pregnancy more as a liability precaution - physicians call. There are a lot of good studies on this, and current-day OBGYN practitioners are using this with success.

Safety of UBI

No therapy of drug is completely safe, yet the overwhelming evidence is that UBI is extremely safe. Undeniably safe.
Deaths each year in the US

67,000	Prescription drug overdose
13,500	NSAIDS-nonsteroidal anti-inflammatory drugs (without aspirin)
3,000	Aspirin
1,000+	Colonoscopy perforations
300+	Anesthesia direct or contributing
0	UBI in over 500,000 treatments in the last 10 years

There are reports that UBI can exacerbate symptoms of some autoimmune disorders. Someone with rheumatoid arthritis or bronchial asthma can have a flare-up after the first or even second therapy. Actually, it is an indication that the light therapy will probably have good success.
Below are some of the items listed in the literature

- Fatigue
- Sleep disturbance
- Heightened sensitivity
- Hypoglycemia in diabetics
- Herxheimer response
- Headache
- Chill
- Low fever
- Hematomas (bruise at the injection site)

Any physicians doing UBI not only has had training but experience with any limitations. It is up to the physician to make the best decision with the patient.

Physicians Testimonies on Safety

Dr. George Rebbeck of Shadyside Hospital in Pittsburgh reported, "There have been no signs of harmful effects in approximately 4,000 blood irradiation treatments under my direct supervision at Shadyside Hospital in the past five years."[viii]

William Campbell Douglas, Sr., MD. Into the Light. Second Opinion Publishing, 1973, 89.

A Russian study of 2,380 sessions of UBI revealed that 1.3% of patients had minor complications – hematomas at the IV site, coagulation in the tubing, shivering, dizziness, and nosebleeds. A.B Marochkov, V.A. Doronin, and N. Kravtsov, Complications in the Ultraviolet Irradiation of Blood [Russian]" Anesteziologiia I Reanimmatologiia 91990), No 4, pp 55,56

Dr. Avhie Herskowitz – Anatara Medicine, San Francisco – "In over 5,000 applications with UV light, I am yet to see a serious complication." Quote from 2018 video https://ultraluxuv.com/videos/

In over 10,000 treatments with UBI, Miley noted six citrate reactions typical of IV procedures; they included headache, chill, temporary fever up to 102 degreed F, and moderate gastrocnemius spasm

Kenneth J Dillon. Healing Photons:The Science and Art of Blood Irradiation Therapy. Washington, D.C: Scientia Press, 1998, pg. 45

Dr. David Nebbeling, Advanced Osteopathic Health - Lansing, MI – I have worked with UBI for over 16 years and have done tens of thousands of treatments; we have not had one negative side effect from this. Quote from 2018 video https://ultraluxuv.com/videos/ and a letter regarding UBI

Sulfa Drugs

As drugs were developed, they were increasingly used in most hospitals. In the 1940s, there was much sulfa drug use. The conflict came when UBI was followed by a sulfa drug regimen. It was observed that patients did not do as well as patients who just did UBI

"It seems that in this type of work, UBI, when used alone, gives the best results. Clinical experience has shown that it is unwise to use photosensitive drugs such as the sulfa compounds with UBI. Apparently, the use of antibiotic therapy with UBI is harmless, but in general, the clinical results are not as satisfactory as when UBI is used alone in indicated cases.

E. W. REBBECK, M.D. **FURTHER STUDIES WITH ULTRAVIOLET BLOOD IRRADIATION THERAPY (KNOTT TECHNIC) IN SEPTIC ABORTIONS*** *Pittsburgh, Pennsylvania Dec 1951 – Am J of Surgery*

Cautions regarding NSAIDS and antioxidants

Many physicians ask about the action of UBI and the use of IV therapies such as high dose IV vitamin C.

Actually, the glucocorticoids and NSAIDs tend to lower the metabolic rate of cells such as activated T-cells in inflammatory disorders that are targeted by BT, rendering them less vulnerable to BT.

As **antioxidants, Vitamins C and** E protect the cells in inflammatory disorders against the oxidative stress that UBI can kindle as part of its action in suppressing the cells. UBI is still effective in the above instances, but its action is slower, and more therapy is required.

Letter from Ken Dillon 2010

Appendix C
Abbreviations and Glossary for UBI

Names for Ultraviolet Blood Irradiation

UVABI – UV autotransfusion Blood Irradiation, Photopheresis, Hematogenic Oxidation Therapy, Quantum Hemotherapy, and photoluminescence, Extracorporeal UBI, Extracorporeal UV Blood Irradiation, Biophotonic Therapy, UBT - Ultraviolet Blood Therapy

ABIS – American Blood Irradiation Society

AMA – American Medical Association

CE – European Union mark

Cholecystitis – Inflammation of the gall bladder

Cholestasis – Bile is reduced or blocked

COPD - Chronic obstructive pulmonary disease is a chronic inflammation of the lungs

CRF – Congressional Federal Register

Cuvette – a special quartz glass tube that lets UV light through

Cyanosis – bluish discoloration of the skin from lack of oxygen

Cytotoxic - toxic to living cells

ECP – Extracorporeal photochemotherapy (ECP) is a medical procedure adding a photosensitizer and UV light

Erythrocytes – another name for Red Blood Cells

Endothelial cells – line the interior surface of blood vessels and lymphatic vessels, forming an interface between circulating blood or lymph in the lumen and the rest of the vessel wall.

Erysipelas – a bacterial skin infection involving the upper dermis

ESKAPE – acronym for a specific set of bacterial superbugs

EVB – Epstein-Barr Virus

Extracorporeal – outside of the body

Fulminant – occurring suddenly and with great intensity or severity

H2O2 – Hydrogen peroxide – a reactive oxygen species – produced in the body naturally and with ozone

HBOT – Hyperbaric Oxygen Therapy – involves a pressure chamber and oxygen.

Heliotherapy –sunlight therapy

Hemosorption – Removal of toxins or metabolites from the circulation

In vivo – a process taking place in a living organism.

Ischemic – oxygen-starved

JAMA – Journal of American Medical Association

Leucocytes – White Blood cells – called in to fight infection

Lipid peroxidation – The reaction that produces LOPs – it is a general term for the chemical reaction

LLLT – Low-Level Laser Therapy. Can be transdermal or IV as in the UVLrx or Weber units

LUBI – Intervascular laser ultraviolet blood irradiation

LOP – Lipid oxidation products

Lysing – Breaking of red blood cells

NO – Nitrous oxide often acts as in vasodilation

Nosocomial – infection or toxin that exists in a certain location, such as a hospital

Occlusive/Occlude – to close up or block off

Oxidant – Electron stealer – causes oxidative stress or indicates stress

Oxidative therapy – Broad term for therapies that cause the acceleration of oxygen metabolism and stimulate uptake of oxygen to the body's cells. HBOT, High Vitamin C, Ozone are all examples.

Perfusion – the passage of blood through blood vessels or other natural channels in an organ or tissue.

Peritonitis – inflammation of the peritoneum, the tissue that lines the inner wall of the abdomen and covers and supports most of your abdominal organs.

Phagocytosis – the ingestion of bacteria or other material by phagocytes

Photonic – pertaining to light

PID – Pelvic Inflammatory Disorder

Plasma – The fluid portion of the blood, in which the formed elements (blood cells) are suspended.

Platelets – Cells involved with clotting but also some cell signaling

Psoralen – a photosensitizing agent

Pyogenic infection – infection denoting pus formation

Preconditioning – Becoming stronger because of stress.

RBC – Red blood cells – carrying oxygen and waste products

ROS – Radical Oxygen Species - A type of unstable molecule that contains oxygen and that easily reacts with other molecules in a cell.

SAD – Seasonal Affective Disorder – uses light to overcome depression

Septicemia – a serious bloodstream infection.

Sulfa Drug – sulfa-related antibiotics that are used to treat bacteria

Suppurative – producing or causing the production of pus

Systemic – relating to a system, especially as opposed to a particular part.

UBI – Ultraviolet Blood Irradiation – Blood is passed by UV light and reinfused

Appendix D
Ken Dillon from his book "Intriguing Anomalies"

Ken Dillon is a historian and theoretical scientist based in Washington, D.C. His Website is http://www.scientiapress.com

He has a B.A. in history from Georgetown University and a Ph.D. in history from Cornell University. After working for several years as an academic historian, he joined the Department of State, where he served in Turkey and in various positions in Washington, D.C.--in particular, as an intelligence analyst (two prizes for analysis). Since leaving the foreign service, Dillon has worked as an entrepreneur and done historical and scientific research.

He has written and studied extensively on UBI. His first book on UBI was in 1998, "Healing Photons," The Science and Art of Blood Irradiation Therapy. The following section is directly from his books. It may be helpful to those who want to dig a bit deeper into the thoughts of this serious researcher.

Mechanism of action

Knott and other early researchers noted that UBI has a complex effect on the immune system. On the one hand, UBI stimulates the activity of white blood cells; on the other, excess amounts destroy various white blood cells. The first effect is the basis of the immune response explanation of the beneficial effects of UBI. The second suggests a reason why UBI seems so effective against autoimmune diseases. In autoimmune disorders, it appears that the metabolically active T-cells and other immune cells absorb much greater numbers of biophotons than ordinary body cells,

and this destroys them, thus slowing down or stopping the disease.

Activated T-cells, in particular, are prone to absorb secondary biophotons following UBI as a source of energy just as they absorb at very high rate glucose and other energy-bearing molecules… …We are adapt in absorbing as much endogenous biochemical energy as possible (via the "glucose shunt," a cell can absorb over 1,000 molecules of glucose per second) to achieve the high levels of activation needed to orchestrate and drive the powerful response of cellular immunity. T Cells are not equipped to switch to shut out excessive energy that is triggered from outside the body.

An Energy Gradient

The remarkable specificity that UBI demonstrates can best be explained by the body's own system of shuttling energy around to the places it is needed. This effect can be seen most readily in the fulminating conditions against which UBI has shown itself to be so formidable. These conditions – e.g., fulminant hepatitis–suck into themselves an unusually high amount of energy in the form of glucose and other energy-bearing molecules. Without this energy, there could be no fulmination; and this energy is made available from system-wide, not merely local, sources. As the fulmination spirals upward, the body smoothly fuels it with energy, suggesting that there is a kind of Energy Gradient in the blood. It is a system whereby the body supplies energy to the various processes in it on demand and, if necessary, to a far higher degree than would occur by the mere undirected circulation of energy-bearing molecules via the blood.

This Energy Gradient explains the exceptional specificity of UBI in fulminating conditions: in effect, the blood cells

Fulminant (/ˈfʊlmɪnənt/) is a descriptor for any event or process that occurs suddenly and escalates quickly and is intense and severe to the point of lethality, i.e., it has an explosive character.

https://en.wikipedia.org/wiki/Fulminant

emitting biophotons are channeled as energy directly toward the fulmination, where the concentrated energy destroys the activated immune cells (or, in the case of necrotizing pancreatitis, the activated enzymes) that are driving it. In these circumstances, even amounts of UBI well over the normal dosage tend to do little or no peripheral damage, in contrast to treatment with various chemotherapies.

Another possible explanation of the effectiveness of UBI in the special case of liver diseases is that the blood-filtering action of the liver tends to concentrate the secondary emissions to a far higher level than the modest levels in the circulating blood. This effect would suggest that UBI might be equally effective in the treatment of Idiopathic Thrombocytopenic Purpura (ITP), an autoimmune disease of the spleen, another blood-filtering organ.

In addition, as fluid, the blood is capable of delivering the secondary biophotons emitted during UBI to hard-to-get-at locations in the body, which other kinds of radiation cannot reach without damaging tissue. The result is higher specificity. This would explain the action of UBI in neurological disorders such as petit mal seizures. A highly successful LUBI treatment of schizophrenics with depressive syndrome resistant to all drugs (dramatic improvement in 8 out of 8 cases) resulted from the ability of the treated blood to destroy metabolically active white blood cells blocking microcirculation in the brain, for instance (Stulin et al. (1994)). In turn, this action suggests a possible role for UBI in the treatment of major depression as a substitute for Electroconvulsive Therapy. UBI can be seen as a kind of glucose and ATP antagonist/ substitute/over-rider and thus as a suppressor of any excessive metabolic activity in the brain – or for that matter, anywhere else in the body.

In contrast, in the lower concentrations with which UBI Therapy affects cells, enzymes, and other factors that are underperforming in certain disease states, e.g., fibrinolytic elements in arteriosclerosis, UBI has a stimulating effect. Thus, its overall action is to normalize the situation by suppressing excessively active

factors and stimulating underperformers. A single dose of UBI can therefore be both "immunostimulatory" and "immunosuppressive," depending on which sets of cells are under discussion. Likewise, an initial dose of UBI can stimulate a cell, but then repeated doses can eventually inhibit it or destroy it. Once UBI inhibits or destroys cells with excessive metabolic activity, glucose that would otherwise flow to them becomes available to underactive cells, which enhances the normalizing effect.

In certain disease states, double and even triple concentration effects may occur, and these can powerfully boost UBI 's specificity. For instance, in a case of fulminating primary biliary cirrhosis, the initially mild level of secondary emissions in the blood could be concentrated in three ways: by the filtering action of the liver, by the blood's Energy Gradient, and by the differential absorption of the biophotons by the activated T-cells. These effects would not merely be added to each other; they would be multiplied by each other, leading to an exceptional specificity that would explain why a relatively modest amount of extracorporeal UBI can have the dramatic localized effect that it does. Of course, the labyrinthine structure of the body ensures that such a concentration does not occur in a straightforward, mathematical manner; it is the tendency toward such a concentration that counts.

Isn't it hard to believe that all of the UBI activated blood cells are channeled directly to the problem spot without any ending up in the wrong places?

Yes. In fact, it is clear that some of the secondary biophotons directly affect the neurons that activate the autonomic nervous system (hence the flushing of the skin), and some of them stimulate the entire immune system. In addition, some secondary biophotons are dispersed around the body. All erythrocyte membranes appear to be altered somewhat, for instance. One explanation for the lack of observable side effects would be this:

Divide the cells of the body and any infectious organisms in it into three categories of energy-demanders: A–high, B–moderate,

and C–low. Into Category A would fit active infectious agents and activated immune cells. These would absorb an inordinately large share of the available blood glucose and, in parallel, of the secondary biophotons from UBI. The cells in Category B–those cells in the stomach, mouth, brain, and elsewhere with a somewhat higher metabolism than ordinary body cells and therefore the ones most often damaged by chemotherapy would absorb only a small amount of secondary biophotons because the blood's energy gradient would direct the main pulse of them toward the infectious organisms or activated immune cells (A). Meanwhile, the overwhelming majority of body cells would belong to Category C. Billions of them each would absorb an amount of secondary emissions equivalent, perhaps, to a few stray biophotons.

The initial treatment with UBI (LUBI obviously differs somewhat but not in essence), the secondary emissions from the treated blood, and the ultra-weak radiation normally emitted by cells in the form of biophotons are in the ultraviolet band of the spectrum, so in this sense, UBI is "natural" not only because of its similarity to sunlight but also because of its similarity to the ultra-weak radiation of the body cells.

In a word, UBI is right at home in the micro-ambiance of the body in a way that no chemotherapy can ever be. In contrast to the barriers the cells might set up to block out chemotherapies perceived as somehow incorrect, they would readily accept their minuscule portion of UBI 's biophotons as a form of natural energy. Their cellular mechanisms could easily repair any damage such a tiny amount of secondary emissions might do; it is very unlikely that a few stray photons do much damage anyway. In turn, the cells' readiness to absorb some of the secondary biophotons would reduce the amount that might otherwise end up in the cells in Category B. In effect, the billions of cells in Category C act as an enormous ecological catchment basin.

It was a serious lapse for American medical science to ignore the documentation on UBI.

Overall Assessment

In sum, UBI Therapy operates in a somewhat complex manner but frequently with a surprisingly simple specificity and consequent virtual lack of side effects. In infectious diseases, the immunostimulatory effect and the induced secondary biophotons work in tandem. In autoimmune disorders, the concentrated secondary biophotons appear to be the main mode by which UBI obtains its effects, suggesting that even in infectious diseases, they play a much more important role than the immunostimulatory effect.

The hypothesis that the focused induced secondary emissions of biophotons are the most important mechanism of action of UBI fits perfectly the pattern of damage that unusually high doses of UBI can do as well as the known pattern of specificity of antimetabolite drugs (e.g., 2-CdA/Cladribine) that resemble UBI in the sense that they mimic energy-bearing molecules. UBI can be viewed as the single most powerful of the antimetabolites.

The method of action of the energy-bearing secondary emissions from UBI appears to lend it higher specificity than many drug therapies aimed at the same applications since to attain their effects; such chemotherapies must deviate from the ideal purity of energy-bearing molecules such as glucose and ATP (Dillon (1994), pp. 37-45). This suggests, in turn, that the negligible observed side effects of properly administered UBI treatment are not the tip of an iceberg of hidden damage but rather that UBI indeed has exactly the exceptionally high specificity that the above energy-bearing model implies. In other words, UBI therapy is not only safe; it is safer than competing drug therapies.

If UBI is so safe and effective, why is it so little-known outside of Russia and Ukraine?

1. Medicine in Western and technologically advanced East Asian countries have gone down the path of molecular biology. Physicians and researchers trained in biochemistry (and often with very little knowledge of physics)

sometimes look askance at biophysical approaches though some start to take UBI seriously once they learn more about it.

2. Statements regarding UBI can easily be associated with the myriad misleading claims of wonderfully curative devices by enthusiasts and charlatans.
3. The present association of UBI with things Russian can appear compromised in the eyes of those who are aware of the financial and technical weaknesses of the Russian medical system.
4. The general low prestige of Soviet and East German communist systems, as well as the lingering effects of Western Cold War propaganda against them, have led to a tendency to belittle the genuine but little-known contributions of their scientists.
5. The lack of Russian and German language skills among Anglo-Saxon and East Asian researchers leads to a mentality in which it is hard for some to accept that there could be a cutting-edge therapy like LUBI on which almost none of the scientific literature is in English.
6. Many physicians have surprisingly little knowledge of the real history of their own specialties; they know the textbook history and the English-language medical literature of the past 25 years, neither of which includes UBI.
7. In turn, this leads to an NIH (Not Invented Here) syndrome. The irony being that UBI was invented here, and the Russians were Johnny-come-lately to it.
8. Since the mid-1950s, the few American practitioners of UBI have chosen to treat patients quietly rather than do battle with state medical boards. The effectiveness of UBI ensures that they do a steady, lucrative business with patients who prefer their services to those of colleagues.
9. The relatively low cost of UBI has never attracted a major medical corporation to back it, and organizing clinical

trials to validate UBI will require considerable effort and financial resources.

10. Lastly, the difficulty of discovering the underlying mechanism of action of UBI long deprived its advocates of a valuable weapon.

How can the blood emit more energy than it receives? The blood can be defined as a well-organized, energy-bearing fluid with the properties of a virtual resonant cavity (this characteristic arises from the sum of the effects in the blood cells, whose cellular walls make them resonant cavities, but the biophysical properties of the cellular field also play a role).

In other words, the blood operates as a distinct system that, through a series of branching chain reactions, reacts in a nonlinear manner in response to inputs of energy (see Voeikov et al. (1997) and the references therein). UBI "turns the cells on" rather than simply "charging" them, though there is an element of charging. An important implication of this is that the parameters for the intensity of treatment of the blood in UBI may be quite wide because the treated blood sample will proceed to react according to its own principles, and thus, the secondary energy it emits might bear little relationship to the exact level of energy it receives. In turn, this phenomenon may explain why considerable variation in treatment intensity, duration, and the number of sessions, source, and intervals often does not seem to significantly affect the therapeutic result. It is true, however, that at times the dosages employed in clinical trials seem inadequate to the task.

The relationship between the level of treatment and therapeutic outcome is a priority subject for UBI research. It is possible that the number of times the treatment is repeated is more important than the level of the dose; the signaling

Blood can be defined as a well-organized, energy-bearing fluid with the properties of a virtual resonant cavity. UBI "turns the cells on" rather than simply "charging" them

effect of the treatment may be more important than the charging one. Likewise, repeating the treatment on a daily basis may be more effective than doing so at greater intervals, either because in this way UBI mimics the periodicity of sunlight or because the initial activation of the cells does not fully subside and thus is taken to higher levels on subsequent days of treatment.

Is UBI uniformly effective against overwhelming infections and fulminating autoimmune conditions? No. In some cases, the patient's condition has deteriorated beyond the help of UBI. In others, UBI simply is not effective. Still, no other therapeutic intervention appears to work nearly as well as UBI in such difficult indications.

Photopheresis – Edelson

In the 1980s, Yale University researchers independently developed a method of blood treatment that is termed "photopheresis" or Extracorporeal Photochemotherapy (Edelson (1988): this article in Scientific American did not mention UBI or the work of the UBI pioneers although the author had cited the 1928 UBI device patent in his own patent application). They use photoactive drugs, filters, and separation of the white blood cells from the red blood cells in the plasma. This treatment costs $2,000, requires sophisticated equipment, and takes many hours.

(From a news release a few years back. It is estimated that, on average, the ECP therapy requires nearly two to three hours at a stretch for the treatment to complete for various diseases. Also, the patient is required to undergo the treatment once every two weeks for a year. The cost per treatment is around US $8000 per treatment. It would mean $ 800,000 cost per person.

Photopheresis uses a low-intensity fluorescent source of UV-A, while the Russian UBI device employs a high-intensity mercury-quartz source of UV-B or UV-C. Many medical centers now use photopheresis.

In effect, photopheresis is a combination of UBI and chemotherapy in which the secondary emissions trigger the photoac-

tive drug previously taken up by the target cells. Thus, to achieve the same effect, photopheresis uses less blood treatment and more chemotherapy than UBI. The substances used are generally psoralens, which occur in nature but are used in chemotherapeutic concentrations that can have more toxic effects than other forms of UBI (Edelson (1991)). The two therapies appear to have roughly the same effectiveness, with UBI presumably having an edge with equal doses of "medicine" (i.e., of toxicity) because of its higher specificity. Photopheresis is probably effective for most of the indications UBI is effective for, and the opposite is presumably also true.

Photopheresis has these comparative advantages: it is approved by the FDA for the treatment of cutaneous T-cell lymphoma; it is currently in clinical trials for other indications; hundreds of photo biologists have studied it; there are many recent English-language publications on it, and it is available in many medical centers.

UBI has the comparative advantages that both the device and the treatment are much less expensive; the duration of the treatment is briefer; the UBI device can be used by any individual with basic medical training; the device is more portable; UBI has been used on a wider range of indications, and UBI 's activation of red blood cells temporarily transforms them into a dynamic component of the immune system.

Two additional considerations are that some steps in the procedure of photopheresis (e.g., centrifugation that permits the UV to concentrate on lymphocytes) might confer an advantage on it; and, conversely, the apparent exceptionally high specificity of UBI may make it "cleaner" than photopheresis, which relies on chemotherapy and has minor side effects. A comparative trial of photopheresis and UBI could shed light on both of them.

An important implication of the FDA approval of photopheresis is that the FDA thereby accepted the principle that therapeutic use of UBI could be both safe and effective.

UBI sounds a bit like certain therapies that are promoted by quacks, doesn't it? So, is it acceptable to be

skeptical? Perhaps initially, but it is a mistake not to investigate further. …With the right dose of UBI, one can bring back to good health a patient with one foot in the grave (Olney (1946), p. 235). In fact, the exceptional specificity of UBI appears to give it a very wide range of therapeutic benefits, making it potentially safer than many or all competing therapies.

In addition to the very clear, consistent pattern of effectiveness reported in studies by scores of researchers in different countries at different times, there is striking internal evidence that shows how trustworthy the sources and information are.

Another telling piece of internal evidence is the consistency of the results of the Vladivostok bronchial asthma trials. In four trials in a row involving many hundreds of patients, UBI repeatedly outperformed LUBI in exactly the same way.

To voice skepticism about findings of such power is a clear mark of bias.

UBI 's effectiveness with animals and infants likewise demonstrates that it is no mere placebo.

In circumstances where it is easy for critics to indulge in unbridled skepticism (the Russians make a tempting target) … This phenomenon can perhaps most accurately be termed "irresponsible skepticism." It is difficult to combat because this skepticism presents itself as deriving from a scientific perspective.

The curious reality is that UBI has no serious critics. A serious critic would read widely in the UBI medical literature, carefully study the photobiological and pharmacological mechanisms of UBI, consult extensively with UBI practitioners, and conduct well-conceived and objective clinical trials. Nor do there appear to be any serious criticisms of UBI, i.e., criticisms that are based on in-depth knowledge and evidence.

Thus, the question "Does UBI work?" is not a useful one because it fails to place the therapy in a context. In a sense, all therapies "work." One could speak of a Principle of Therapeutic Correspondence: Every source of energy has a corresponding therapeutic range.

The proper questions with UBI, LUBI, or any other medicinal or biophysical therapy are: "What is its therapeutic range? What are the circumstances in which it is appropriate to use, and what effects does it obtain in those circumstances? How does it compare to other therapies? What are the contraindications?"

Similarly, the question "Is it safe?" is not helpful. It can lead to a bottomless pit of doubt whereby every piece of evidence of the safe application of UBI is met with the further question: "But isn't it possible that UBI causes some hidden, systematic damage?" That approach is ultimately paranoid. The correct scientific questions are: "What are the level and pattern of UBI 's toxicity? How do they compare with those of competing therapies?" In fact, these are simply other ways of framing the above questions on effectiveness.

Does UBI have any advantages over competing drug therapies? Yes, ten advantages:

1. UBI has higher specificity than nucleoside analogs and certain other drug therapies.
2. UBI is less likely to induce drug resistance in microorganisms. The secondary emissions of UBI have more uniformly destructive effects on microorganisms than drug therapies, which some microorganisms may reject or ingest and develop resistance to. For a virus to develop resistance to UBI 's concentrated biophotons, it would have to evolve into something quite different. Certain parasites, however, might not be vulnerable to therapeutic doses of UBI not because they have developed resistance through treatment with it but because they are resistant to start with, perhaps because of an ability to freeze their metabolic processes.
3. Unlike antibiotics, UBI does not destroy benign flora, does not depress the immune defenses of the body, only occasionally gives rise to allergic reactions, and has no toxic effects on specific organs.

4. In acute infectious diseases of unknown etiology, UBI can immediately be employed, obviating the need to wait for tests or hope that an antibiotic used before test results are available will be appropriate.
5. Because UBI is so versatile, a physician can become a master at its use for many purposes, thereby saving on the time required to learn the details of many drugs for specific indications as well as avoiding the possibility of making an error in using a new drug.
6. Storage, spoilage, expiration, and similar supply and distribution problems are reduced in UBI.
7. The problem of compliance with UBI is much smaller than with drug therapies, in turn lessening the likelihood of the development of resistance and spread of infectious diseases;
8. Except in odd circumstances, accidental or deliberate overdoses by patients are impossible with UBI.
9. UBI is cheaper than many drug therapies, although insurance does not cover UBI.
10. In addition to destroying microorganisms through its specific action, UBI boosts the overall immunological defenses of the body through its non-specific action, unlike drug therapies. While the handiness and precise dosages of antibiotics make them better than UBI for some specific indications, in major indications such as pre-and postoperative prophylaxis, UBI is superior.

So UBI is a panacea of sorts? No. In some disorders, UBI 's effectiveness is known to be limited. In other cases, e.g., ulcers, effective and relatively inexpensive treatments already exist, so there is little need even to investigate using UBI –except as an option in a remote, impoverished region where modern medicines are hard to come by. In others, such as sinusitis, the results with UBI appear to be good enough to make it worth trying in a given

refractory case but not good enough to recommend as a standard treatment.

One way to think about it is this: for what indications is UBI the treatment of choice? From this perspective, UBI is indeed unusual. No other therapy can match the range of difficult conditions for which UBI is the clear or potential treatment of choice. Its mechanisms of action and therapeutic profile are well characterized. As a photobiological and immunological treatment, UBI Therapy is inherently attractive.

Appendix E
Chronology and History of UBI

I am indebted to Dr. Danilo Fernandez for his excellent summary of this information. It has been edited for the book.

Ultraviolet Blood Irradiation (UBI), also called Photother-apy, Photo Luminance, Blood Irradiation, Auto Transfusion Blood Irradiation (AUBI), and Photonic Corpuscular Irradiation (PCI), Ul-traviolet Blood Therapy (UBT) is a science unto itself. The earliest date I could find in my research of any written material dates back to 1820. This article, authored by Percy and Laurent, "Phosphorescence of Wounds," Dictionaries des science medicals (Paris, 1812-1820), describes the ability of light as a method utilized in wound healing. This is the true beginning of Light Therapy as we know it.

1903 – The father of phototherapy is **Dr. Niels Ryberg Finsen**. Dr. Finsen found an effective light therapy for the treatment of a destructive disease, found especially in children, known as "Lupus Vulgaris." Dr. Finsen demonstrated a 98% success rate, and for his work was awarded a Nobel in Medicine in 1903. Dr. Finsen was so popular that he was conceded a stamp of his own.

1928 – Emmet Knott developed the first UBI Irradiator. Their first publication was in 1934 and dealt with UBI as a treatment for different infections. From 1934 to 1957, over 100,000 treatments were successfully administered for over **50 diseases**. Other physicians who were UBI pioneers are Miley, Rebbeck, Christianson, Hancock, Burke & Barger, Schwartz, and Olney.

1940 – Royal Rife was attacked by the AMA in regard to his ability to deactivate cancer cells. Rife refused the AMA who wanted to buy his device. They subsequently sued him and destroyed him. In 1952, AMA will attack UBI.

1940 – Time Magazine puts out a positive article on UBI and Emmet Knott. This is about the time of its positive introduction to the AMA convention in New York.

1941 – Miley informed on the physiological effects he observed for two years and noted that no harmful effects were seen on erythrocytes, leucocytes, and in the structure of hemoglobin.

1942 – Cinelli presents results of the use of UBI in Posterior Cerebellar Artery Syndrome while Rebbeck describes the efficacy of UBI in one case of Post-Surgical **Septicemia of the Prostate.**

1942 – Penicillin developed.

1943 – Miley and Rebbeck presented results of **72 cases of Peritonitis**. Miley, Seidel, and Christensen presented results of 80 cases with **Bronchial Asthma,** and Miley presented results on the control of Acute **Thrombophlebitis** with the Knott method. In the same year, Rebbeck publishes two articles concerning the use of UBI and its ability to control infections in **Peritonitis** and in the treatment of **Septicemia** by Escherichia Coli.

1940–1945 – a government-supported international collaboration including Merck, Pfizer, and Squibb worked on mass-producing **penicillin** during World War Two, saving thousands of soldiers' lives.

1944 – Miley published an article on the use of UBI in **Acute Poliomyelitis**. Miley also presented results of the efficacy of UBI in Staphylococcus Infections and on the use of UBI for Non-Healing Wounds.

1945 – Pharmaceuticals are being developed and show promising results with infections.

1947 – Olney published an article presenting results of **600 cases of Pelvic Cellulitis** treated with only UBI and with complete recovery of all patients, and Miley and Christensen presented results on 74 cases of Acute Viral Infections.

1948 – Knott published his first article on the "Development of Ultraviolet Blood Irradiation." He now has **over 15 years of history** and tens of thousands of treatments by supportive physicians.

1948 – Formation of the **American Blood Irradiation Society ABIS** by Miley, Olney, Rebbeck, Hancock, and Lewis.

1949 –Time Magazine article on the effectiveness of UBI on children with acute rheumatic heart disease. 22 cases with children from 3-13. An average of about 3 therapies was given. Twenty out of twenty-two recovered.

1952 – Schwartz published an article in the Journal of the American Medical Association (JAMA) titled Ultraviolet Irradiation of Blood in Man (38). It stated that UBI was not an effective therapy. It caused UBI to be put on the back burner of medicine. It became "Alternative Medicine."

1952 – Salk Polio Vaccine introduced.

1955 – Olney (39) published an article on "Treatment of **Viral Hepatitis** with the Knott method of Blood Irradiation," American Journal of Surgery. This article is a must-read and demonstrated beyond a shadow of a doubt the efficacy of UBI.

1956 – funding of **National Institutes of Health** in the US rise to $100 million.

1960 – The American Medical Association and other medical and surgical associations who had previously welcomed UBI as the discovery of the century were now openly lobbying for the **disuse** of the very therapy that had saved thousands of lives and which promised great future accomplishments in multiple fields of medicine.

1961 – Emmet Knott, inventor of the first UBI machine used in medicine, **dies** at age 64. His son, E.K. Knott II, takes over the manufacturing company.

1977 – Dissolution of the original American Blood Irradiation Society.

1981 – Two Russian scientists develop intravenous laser blood irradiation for cardiovascular issues.

1983 to present – scores of publications regarding the medical effect of LBI come out of Russia. A few come out of Germany.

1986 Ganelina and Samoilova published an article on "Mechanisms of the Influence of Blood Irradiated with Ultraviolet Rays on the Organisms of Humans and Animals."

1987 -Edelson published an article on the "Treatment of Cutaneous T-Cell Lymphoma by Extracorporeal Photochemotherapy," New England Journal of Medicine. This study and the continuation of additional trials conducted culminated in FDA approval.

1988 – Michailovich, V.A. published an article about success with 1,275 therapies of UBI on 353 patients suffering from stomach, duodenum ulcer diseases, obliterating atherosclerosis, vessel peritonitis, septicemia, pneumonia, phlegmonous, osteomyelitis, furunculosis, and thrombophlebitis.

1989 – Leitman S. published an article on Use of Blood Cell Irradiation in the Prevention of Post transfusion **Graft-vs.-Host Disease**; Transfusion Science.

1990 – Matsuyev demonstrated the benefits of UBI in Obstetrics & Gynecology procedures, and Sirenko, Yu, Malinovskaya, and Krasnitskii publish "On the Treatment of Patients with **Severe Coronary Insufficiency** with Ultraviolet Blood Irradiation."

1992 -Taylor and Gasparro publish their article on "Extracorporeal Photochemotherapy for Cutaneous **T-Cell Lymphoma** and Other Diseases."

1993 – William Campbell Douglass publishes his book on UBI entitled "Into the Light" – Tomorrow's Medicine Today.

1994 – Mrazek, Jancarek, Vymola & Gavrilov publish on the *Enhancement of Immunity by Intravenous Irradiation of Blood Using* **337nm Laser** and its ability to mount an immunological response.

1994 – Iakovlev publishes "*The Mechanisms of the Therapeutic Action and the Basis for the Frequency of Performing Sessions of Ultraviolet Blood Irradiation in Treating Acute Pneumonia.*"

1995 – Bednarskii publishes on *The Use of Intravascular LBI in the Combination Therapy of* ***Preeclampsia.***

1996 – Dr. Robert Rowen publishes "Ultraviolet Blood Irradiation – The Cue That Time Forgot."

1997 – Miley, G.P., Olney, R.C., Lewis, H.T. "Ultraviolet Blood Irradiation: **A History and Guide to Clinical Application 1933-1997."** Silver Spring, Maryland: Foundation for Blood Irradiation. A 280-page guide to UBI.

1998 – Ken Dillon publishes his book on UBI called "Healing Photons – The Science and Art of Blood Irradiation Therapy."

2004 – in the Dominican Republic, Dr. Fernandez performed government-approved, Phase I Controlled Clinical Trials on 36 patients with acute and chronic HIV/AIDS.

2007 – A Clinic in Lansing, Michigan, begins research on the development of a more powerful UBI machine. UBI protocols are changed that add saline to the blood, making the UBI therapy easier and more effective.

2007 – Michael Weber publishes his "Intravenous laser blood irradiation." German Journal of Acupuncture and Related Techniques. He has developed his LBI unit into a multicolor monochromatic therapy unit.

2015 – Todd Kuenstner et al. produce FDA trials using UBI and are successful for the treatment of hepatitis C. Unfortunately, it is eclipsed with a drug regime that is much more expensive but also more effective.

2017 – Michael Hamblin, Harvard Researcher, and his team publish a review paper – *Ultraviolet Irradiation of Blood: "The Cure That Time Forgot,"* urging that UBI be tried on today's antibiotic-resistant infections.

2017 – Ultralux UV gets clearance from the European Union to market a new UBI unit and is marked CE certified medical device. www.ultraluxuv.com

2019 – Antibiotic-resistant pathogens cause 2.8 million infections in the US and more than 35,000 deaths.

2020 – Borelli publishes the "Use of Ultraviolet Blood Irradiation Against Viral Infections," Clinical Reviews in Allergy & Immunology.

Appendix F
Informed Consent for Ultraviolet Blood Irradiation

Suggested template provided by attorney Alan Dumoff: alandlmc@aol.com. Alan is a lawyer for the alternative/complementary medical physician. He is familiar with many of the legal issues and lawsuits.

[IT IS ADVISABLE TO CHECK WITH LOCAL COUNSEL TO ENSURE STATE REQUIREMENTS ARE MET]

UBI (Ultraviolet Blood Irradiation) is a treatment used in a wide range of conditions; because the treatment improves many basic physiologic capacities it can be used in the treatment of a wide variety of diseases including Lyme disease or other infections that has been unresponsive to first-line treatments, systemic disease including cardiac, liver and kidney diseases, neurodegenerative diseases, psychiatric diseases, metabolic disorders, autoimmune disease, chronic fatigue and mitochondrial syndromes; inflammation and pain.

There are a number of possible mechanisms by which UBI may provide patient response including indirect antibacterial and cleansing effects, mitochondrial activation, stimulation of nitric oxide resulting in vasodilation, venous oxygen increase and stimulation of natural immune responses such as enhanced white cell communication. It is thought to enhance immune function, reduce inflammation, improve microcirculation and oxygenation and increase ATP production and support for cellular energy production. It is thought that the light stimulus induces cellular signals that affect chemical behavior, metabolism, gene expression and enzyme and protein activity.

Notice as to Nonstandard Nature of Treatment: UBI is not approved by the US

Food and Drug Administration nor practiced or accepted by US conventional medical institutions. Academic and mainstream medicine do not consider the body of published evidence sufficiently rigorous to support the practice. It is practiced more widely in Europe and has become an accepted practice among many physicians who practice integrative medicine, an approach that incorporates functional, complementary or alternative medical approaches into practice.

How UBI is Performed

A clinician will insert a needle into a vein in the arm and approximately 40-60 cc's of blood will be removed. The blood will be transferred into a syringe where it is mixed with heparin to prevent it from clotting. It is then injected into a bag where it is mixed with saline solution. It will then pass back to the patient through an irradiation chamber where it will be exposed to a controlled amount of ultraviolet light. "Irradiation" refers only to the photonic energy; no radioactive substance is used. This procedure takes approximately 40 minutes to one hour.

Contraindications and Potential Adverse Reactions

UBI has been widely used globally for over 30 years with few ill effects. Your safety is a priority, and every effort will be made to ensure that safety. As with any intravenous therapy, there is some risk of side effects or adverse reactions. Patients can experience discomfort, swelling and bruising at the injection/insertion site. There can be a clotting of the blood in the needle, cuvette and lines. While sterile technique is used, any invasive medical procedure presents the rare risk of infection that can be serious or life-threatening. Any intravenous procedure carries very rare risks of a cardiovascular event, such as a coronary or pulmonary emergency that includes arterial or ventricular arrhythmias, stroke, or embolism.

Patients with any of the following conditions should inform their physician as UBI may not be appropriate: pregnancy, thyrotoxicosis, hemophilia, porphyria, extremely low platelet count, atopic dermatitis, photo-sensitivity or use of a photo-active medication. Additional contraindications include those with thrombocytopenia and cardiovascular instability and patients on Coumadin or other blood thinners.

Patients may experience a "Herxheimer reaction," in which one feels aches, pains, and possibly low-grade fever as the body detoxifies from a rapid die-off of bacteria, toxins and pathogens.

Additional Notices

No Guarantees: No practice of medicine is an exact science, there are significant individual differences between patients, and there can be no guarantees as to the outcome of treatment. Particularly as this is an investigational therapy, no guarantees are made that I will gain any benefit or not suffer any adverse consequences.

Informed Consent

I hereby consent to the use of UBI and certify that I understand the nature of this treatment, including the risks of possible complications and choices I may have about other approaches. I have been adequately informed, questions I have asked have been satisfactorily answered, and I have executed this consent voluntarily and of my own choice. I have not been offered any guarantee as to outcome. I acknowledge that my physician has discussed with me the basis for using UBI therapy for my condition and has discussed the risks and benefits of using the therapy with me. I agree that I assume the risks of this therapy and to hold my [CLINIC NAME], its principals, physicians, and staff harmless in the event I experience a side effect. I understand and agree to the financial terms described above. I represent that I am seeking treatment in order to further my own health and for no other reason. I do not represent a third party.

Dated:

_____ _____

Signature of Patient or Legal Guardian Witness

_____ _____

Patient's Printed Name Witness Name Printed

Appendix G
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About This Book

UBI – Ultraviolet Blood Irradiation, the Invisible Cure, is making a resurgence in the US. For years it was forgotten and primarily practiced in Russia and Germany. New and powerful modifications and improved protocols have made it a tool of choice for many alternative physicians. Invisible Cure has filled the gap of a much-needed update on UBI. Explaining its modes of operation, seeing its effectiveness in a variety of disorders and unparalleled safety should make this an accepted and valuable medical tool across America and the world.

About the Author

Tom Lowe is a serial entrepreneur, Christian, researcher, teacher, father to 11 children, husband to one wonderful wife – (going on 50 years) and a passionate advocate for alternative medicine. Considering the 18 plus businesses that he has started this is his all-time favorite. Through God's timing and circumstances, Tom stumbled upon this in 2007. "I truly did not believe that light could have this kind of effect. After running a clinic for a year – just to test UBI, I was a believer." Helping people has been his great privilege. Supporting those physicians who are on the front lines is another honor. Engaging in humanitarian work is an added encouragement.

"We never know where creativity and freedom will take us. For me it has been a wild ride, an adventure, an all-time blessing to have helped make UBI a more acceptable therapy."