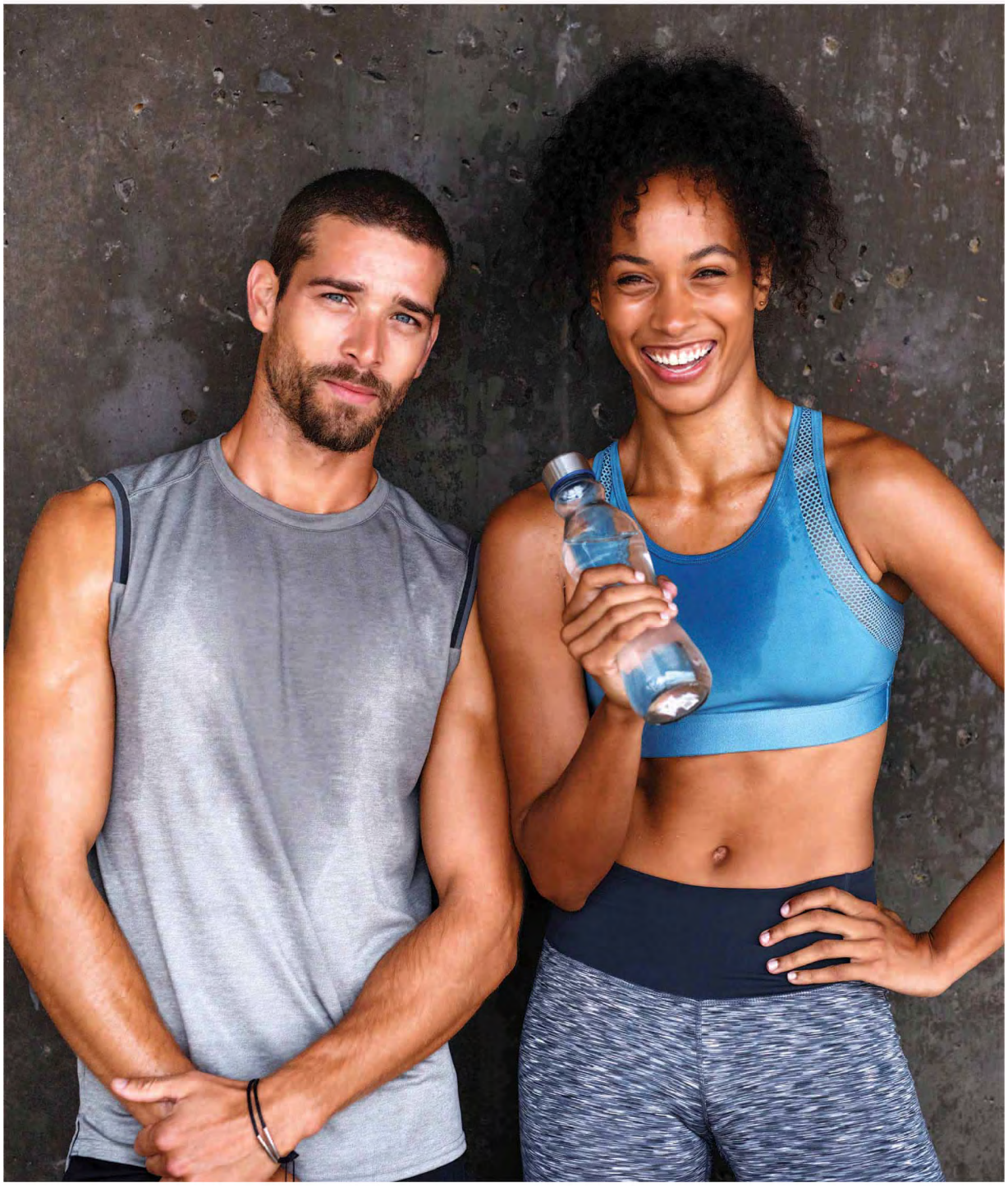
THE PERFECTAMINO™ GUIDE TO

FAT LOSS & LEAN BULKING

THE BODYHEALTH® TOTAL BODY PROGRAM



BODYHEALTH®

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INTRODUCTION

BODY

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FAT LOSS & LEAN BULK PROTOCOLS

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IN THIS GUIDE WE'RE GOING TO COVER:

- How protein utilization actually works inside the body,
- How sugar utilization works,
- How body fat is both stored and burned and the roles different fats play in fat loss, fat gain and muscle building,
- The role your digestive health plays in building muscle and losing fat,
- What role key hormones play in regards to muscle, fat, energy levels, food cravings and mood, and what raises and lowers these hormone levels,
- The actual amounts of calories different foods have and how to count these,
- How to lose fat while building lean muscle, or build lean muscle without *excessive* fat gain — *naturally*,
- And much, much more...

AN INTRODUCTION TO REAL FAT LOSS & LEAN BULKING

We've been educated that in order to build muscle and have a well-defined physique we must first bulk, gaining muscle and fat at the same time, and then work hard to lose this excess fat through cardio, calorie-cutting, starvation, energy crashes, mood swings and perhaps tears.

And hopefully we won't lose too much of our muscle gains in the process.

That's what we've been told. What we've been shown.

And. It. Is. NOT. True.

You don't need to go through hell to build a lean, muscled physique that you love.

You can build lean muscle without all that excess fat — and do so naturally.

And you can lose excess fat without losing muscle (yes, even in a fasted state), all without going through a mid-life crisis each time.

You just can't do it with your current incredibly-cheap-to-produce protein powders, energy drinks, and highly-processed GMO foods.

These add to your waistline and cut into your gains. And they do this much more than you think.

(Unless you've got the metabolism of a super-powered cheetah, in which case, we don't like you, so go away).

But these products, with their low protein utilization rates, high amounts of refined and unbalanced fats, and *ultra* processed sugars are not just adding excess fat — they are wreaking havoc on your hormones, the chemicals that tell your body *how to use* what you put into it.

This is a big point. Because when our hormones are off we can eat until we're stuffed and still feel starving, go running for two hours and not lose any fat, spend hours in the gym while making little gains, have low energy most of the day, and much, much more.

Not for everybody... but for many.

These low-utilization proteins can also be pretty hard on your liver, kidneys, heart, and digestive system over time, as much of the protein sources used for muscle building today are mainly converted to sugar in the body — not protein.

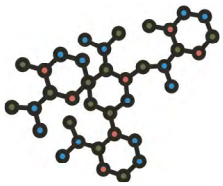
And highly processed sugars and fat lead to all sorts of physical situations which again cut down your gains, or make them harder to achieve.

These products build up fat in the arteries over time which leads to high blood pressure and heart disease and strains your livers detox systems, not to mention lowering your endurance and stamina during your workouts and your body's overall ability to repair and build.

And when we factor in the digestive health of most people these days, and the fact that much of their food isn't even being broken down enough to be used by the body as nutrition, the battle can seem lost before it's even begun.

So, unless you're the kind of person who enjoys emotional roller-coasters, weight loss diets that often derail, added sweat for no reason, or just the overwhelming joy of constantly gaining and losing a belly all for the fun of it... read on and let's see how all this works.

KEYWORDS



Protein: These are molecules in the body composed of much smaller molecules called amino acids. Proteins make up about 50% of each of the cells in your muscles, organs, tendons, nerves, bone, skin, and most chemicals in your body. Without a constant source of usable protein your body would waste away.

Collagen: This is a specific type of protein found in your skin, bones, and connective tissue like ligaments and tendons.

Essential Amino Acids: These are amino acids that the body *cannot* produce on its own and so must get from food. But, when the body has *all* of the *essential* amino acids it can then use them to make any of the *non-essential* amino acids that it needs.

That's why they're called non-essential — the body can make them. The body can then use all of these to make any of the various proteins and collagens that it needs.

Carbohydrates: These are sugars the body uses to create energy: fruit, grains, beans, bread, starches, candy. The body can use these immediately as energy or store them as future energy. Some carbohydrates are broken down slowly and some very fast. The speed at which they're broken down determines what *effect* they have on your body's systems.

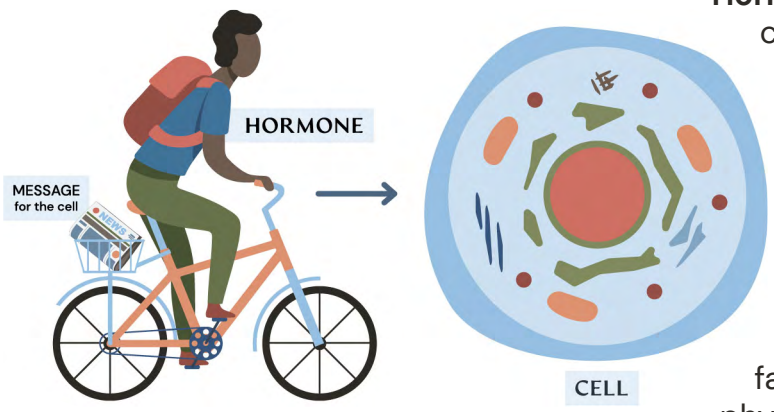
Glucose: This is blood sugar. It's the form carbohydrates take once they have been broken down inside the body.

Glycogen: This is sugar that has been stored in chains of sugar molecules inside your muscle and liver. When you haven't eaten, and your body needs sugar for energy, it breaks these chains back down into individual sugar molecules to use.

Processed Sugar: This is sugar that has been refined and modified. It hits the system very quickly and creates very different reactions in the body than natural carbohydrates. It's also highly addictive.

High Fructose Corn Syrup: This is a type of processed sugar released in the late 70's and early 80's that hits the system very fast. The percentage of obese Americans has risen by nearly 4 times since its release, with over 40% of all Americans now clinically obese according to the CDC. It's in almost all of our packaged food to one degree or another now — even the "healthy" foods.

Fats: These are oily or greasy substances found in all living things. There are many kinds of fats and they have different functions inside your body. Some fat is stored in fat cells under the skin and is what we normally think of as body fat (this makes up about 90% of the fat on our body). Some takes root inside our organs and blood vessels and can cause many health problems such as high blood pressure and impaired organ function. Some fats make up the outer membrane of each one of our cells, allowing them to function. And some fats raise or lower our inflammation levels and so cause fat gain or loss.



Hormones: These are messenger chemicals in the body, passing on instructions. They tell the cells what to do depending on what is happening. There are over 50 hormones in the human body and they regulate every aspect of our inner workings: energy levels, growth, muscle gain or loss, fat gain or loss, cravings, and physical shape.

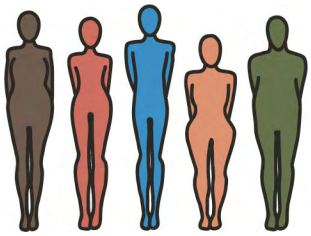
They wake us up or put us to sleep, make us energized or lethargic. They even influence our emotions. But they are all necessary to a properly functioning body and, *when in balance*, everything runs well. However, when they go out of their proper balance, they can cause many troubles. Diet and toxins are the key things that throw them out of balance.

Enzymes: These are a different kind of chemical in the body responsible for creating chemical reactions. While a hormone may say to break down fat for use, it's an enzyme that will perform the actual chemical action that does so. There are over 1300 different kinds of enzymes in the human body and they're all needed for proper function. They are all made out of amino acids.

Calorie: This is a measurement of the potential energy available in any food source. It's often used in calorie counting to determine how much to eat to both lose fat and gain muscle.

Macronutrients: These are the primary food sources calories are counted from: proteins, carbohydrates, and fats. These are called macros for short.

EVERY BODY IS UNIQUE



I need to state this here because this is very important, and *why* I cover so much in this guide.

Every person's body is different. This is due to genetics (the blueprints for your specific body), epigenetics (how well these blueprints were followed to *build* your body when you were growing up), your microbiome (the bacteria living in your lower intestine), your diet, your lifestyle, the toxic load you take in from food, water and air, and more...

These play out as varying hormone levels person to person, differing abilities to gain or lose muscle and fat, digestive ability, immune system function (vital for overall fitness), blood flow, where fat cells are *physically* located on your body, how the body responds to different nutrients, etc, etc. — all of these are different from person to person and need to be thought with on an *individual* basis.

The one-size-fits-all view of dieting doesn't work because of this. From it we get under-evaluated statements and bad logic like "carbs are bad" or "saturated fat is bad."

Anything is bad if too much, but also if too *little*. So it's not about one thing being good and another bad, *period*, end of story.

It's about *maintaining a balance*. And more importantly understanding what that balance is for *you*.

So to ensure we get as close to that balance as we can for each person, I'm laying out *all* of the information, not just as each part relates to itself, but as it relates to each *other* part and to the *whole*.

Only then can you see where things need to be raised or lowered for *you*, on an *individual* basis, and know what to do to achieve that.

So make sure you don't get hung up on any one point as the be-all, end-all.

Work to *understand* each point — but look at them as they relate to the *whole*.

Evaluate what's working by what you see in the mirror; how tight or loose your clothes are, your strength and energy gains, and how you feel overall. Those are tangible results.

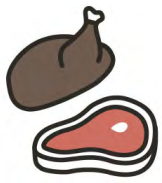
And we want results.

The only test of validity for any piece of information is: when *correctly* put to use, *does it produce the results it's meant to produce or not?*

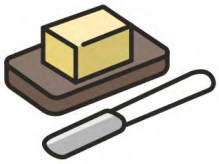
So use *that* as your guide.

Ready? Here we go.

CALORIE COUNTING & MACRONUTRIENTS: PROTEINS, FATS, AND CARBS



PROTEINS



FATS

CARBOHYDRATES

Ask anyone about bulking and cutting (adding muscle and losing fat) and they'll bring up calories and macronutrients.

Now, there's a lot of talk on these subjects. Some people say they're the only thing that works, that if you want to gain muscle you need to consume more calories than your body uses for energy, and to lose weight you need to consume less calories than your body uses for energy so it will tap into fat stores to use as energy instead.

Others say calories have nothing to do with it at all.

Then some people say it's the *ratio* of the three macronutrients that's important, with different experts stating different ratios, some high fat and low carb and some high carb and low fat.

But what is it? Does calorie counting work or not? And which ratio of protein, fat, and carb is best?

The truth is, they're *all* right. Because there isn't an absolute yes or no to the above questions, or even an exact optimum percentage of those three macronutrients — *because we're looking at the wrong thing*.

Just dividing it between proteins, fats and carbs is too general. Way too general. It's two dimensional. We need to enter the third dimension on this. Or fourth or fifth.

We can say that carbs raise insulin (a hormone) and too much insulin raises fat stores.

True. But *which* carbs? Are we eating a couple apples or drinking a Coke? Each have the same amounts of carbs and yet each will produce a very different *reaction* in the body, both hormonally and in how they're *used* by the body.

A Coke will spike insulin almost immediately and goes in too fast for most bodies to use it or even see it as energy, almost wholly triggering fat creation. It will also raise cortisol levels, another hormone that increases fat and breaks down muscle.

But a couple of apples will hit much more slowly, raising insulin levels slowly, but also *producing less insulin overall*. They're also good for *lowering* cortisol levels. And the body will have enough time to see them as energy and use them for energy *when* you consume them, with a lower likelihood of converting them to fat.

See the difference?

Being too general leads to differing results, and because of this, differing conclusions. We need to get more specific. Not in a way that's utterly complex and no one could ever follow, but in a way that can be followed, yet is *effective*.

And we'll start with the most overlooked place...

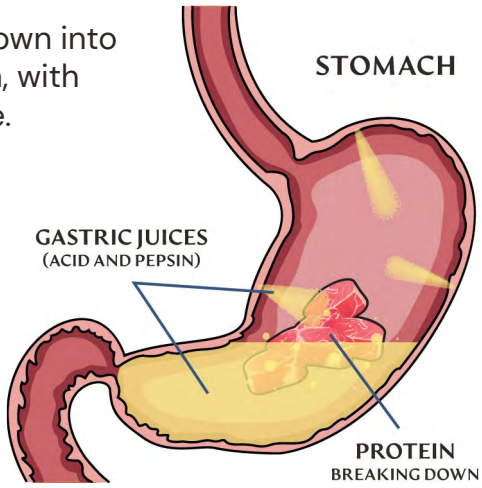
HOW PROTEIN DIGESTION AFFECTS MUSCLE BUILDING, FAT LOSS, HORMONE LEVELS, INFLAMMATION, & OVERALL HEALTH

The structure of your body is largely made of proteins — tens of thousands of different kinds[2].

If you are low in protein due to the amount you consume, the type you consume, or *your body's inability to break it all down into a usable form*, then you will heal from injury and workouts slower, have low levels of hormones, be low on energy, have a hard time losing fat and building muscle, have a weak immune system[4], have higher levels of inflammation, and be depressed more often (amino acids feed the bacteria in your colon that produce neurotransmitters like serotonin and GABA, low levels of which can make you depressed)[5].

So understanding exactly how it works, and how to keep it working or *get it* working properly, is very important. Here we go:

When you consume food, you chew it and it goes down into your stomach. Here we mostly see protein digestion, with fats and carbs mainly digested in the small intestine.

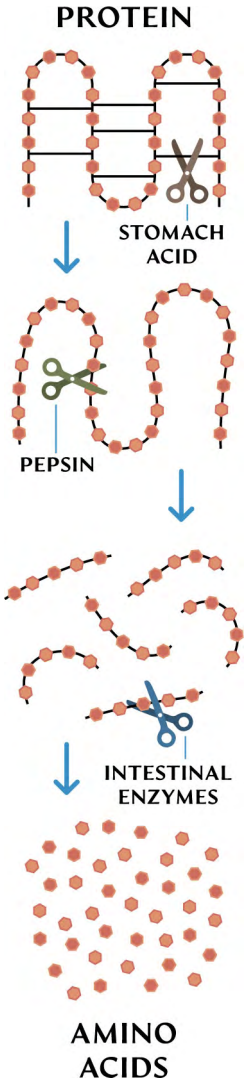


Now, when protein comes in your stomach releases two main things: hydrochloric acid (stomach acid) and an enzyme called pepsin[6].

The pepsin helps break down the proteins, and the stomach acid does several things: it helps break down proteins, breaks down minerals needed by the cells to build new protein later on, kills bacteria, fungi, parasites and viruses coming

in with your food and water, and prevents acid reflux and heartburn[7]. I bring this up mainly because most people today have *much less* stomach acid than they need and many will feel much better addressing just that.

But back to the protein. These proteins you just ate are each made of hundreds or thousands of individual amino acids, all bonded together in long chains, like a snake. And the chain is coiled up and has bonds that *keep* it coiled up. This is a protein (see picture).



So, first, the stomach acid cuts the bonds holding the *coils* together so it's just one long chain, uncoiled (images 1 & 2).

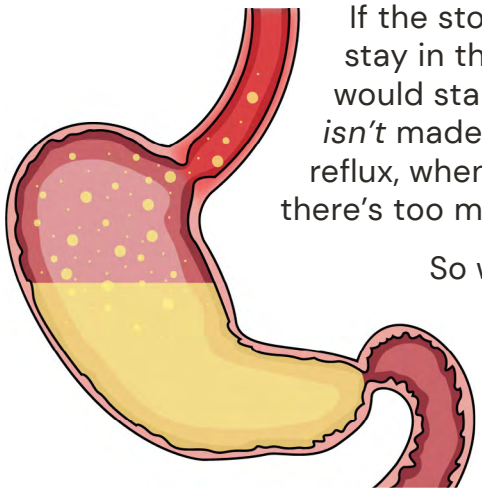
Then the pepsin starts cutting the bonds that hold the overall chain together, so you don't have one long chain but many shorter chains (image 2).

It doesn't cut all of them, but it cuts a lot. By the end of this, instead of one long chain of hundreds or thousands of amino acids all coiled up, it's now many, much smaller chains of maybe 20 to 40 amino acids each[8] (image 3).

Now, there's something else that's been happening during this process. This whole time the level of stomach acid has been rising, right? Well, acid is measured on something called the "ph scale". This scale goes from 1 to 14, with 1 being the most acidic and 14 being the opposite of acidic (alkaline).

So, by the time these amino acid chains are broken up, the stomach acid should have reached a point where the stomach has a ph of about 1 or 2 — *very acidic*. The stomach can handle this level of acid because of a mucous lining it has along its walls[9].

But it needs to get to a ph of 1 or 2, because this is the trigger that signals the valve between stomach and small intestine to open and let the food through.



If the stomach *didn't* get this acidic then the food would stay in the stomach much longer and go rancid. Then it would start bubbling up and burn the esophagus which *isn't* made to handle this acid. This is heart burn and acid reflux, when there's *not enough* stomach acid — *not* when there's too much[10].

So we want it to get very acidic. If it's not then you get heartburn, but also you get proteins that aren't broken down enough. And they need to be, as you'll see.

From here the food then moves on into the small intestine where more enzymes come in, further

breaking these short amino acid chains up until they're just free-floating individual amino acids — no more chains (image 4 on previous page).

Other enzymes also start breaking down the fats and carbohydrates as well and all of these broken down pieces start moving through the intestinal wall into blood vessels that take them to the liver. The liver then filters all of this, looking for any toxins, and then lets it all out into the blood stream in the body.

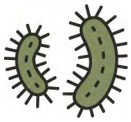
But this protein breakdown is important here. You see, the amino acid chains *must* be fully broken down into individual amino acids for a few reasons.

First, if they are fully broken down then the body can use them to build new proteins and collagen in the forms that it needs for muscle, bone, hormones, enzymes, etc.

But if they're *not* fully broken down the body *can't* use them. At all.

In this case they either continue through the intestine and leave as waste, or... they're absorbed through the intestinal wall and get into the blood stream and cause *inflammation* in the body.

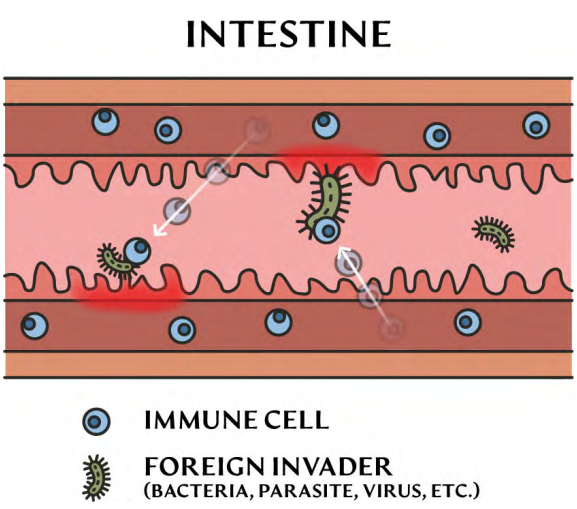
This is because of those bacteria, fungi, parasites and viruses I mentioned coming in with your food, henceforth to be known as *foreign invaders* — because they are your enemy.



These come into the stomach, and this is fine. Because if your stomach acid gets acidic enough... it *kills them off* before they get to the small intestine.

But if it doesn't, or if some of them do get through, which *does* happen, your body has a solution.

There are three walls around your small intestine. The first is an inner lining only about one cell in thickness which sees the broken down nutrients and lets them through into the body. The third wall is all the blood vessels surrounding the intestine which take these nutrients to the liver. But the second wall, between these two, is made of immune tissue.



This is why you've heard that about 80% of your immune system is in your gut. This is it.

So, when food comes into the small intestine, this immune tissue sends out immune cells to check for any foreign invaders. And when the immune cells find some, they send little soldier cells called antibodies to surround the invaders and destroy them. This is what is called an "immune response". And there's *always* some inflammation during an immune response. So, if there were a lot of bacteria, like food poisoning, you might

get a belly ache. That's from the immune response against the bacteria, not from the bacteria itself.

But the way the immune cells recognize these bacteria, parasites and fungi is by their shells, or outside coating, which is made out of protein.

See, they know that any protein *the body* needs is already broken down into individual amino acids now. Right? So these whole protein structures must be *foreign invaders*.

So they either kill them then and there, or maybe some make it through the intestine and liver and into the blood stream and land somewhere in the body, in which case the immune cells are sent *there* to kill them.

And the immune cells also remember the exact protein structure of these invaders so they know them in the future and can remember how best to kill them. They have to so they don't mistake the body's own protein structures for harmful bacteria and attack them (that's what an auto-immune disease is, the body mistaking *itself* for harmful invaders and attacking itself).

But now look at this... if your digestive system *didn't* fully break down all your protein into individual amino acids, and then some of the partial amino acid chains got out into the blood stream, then when the immune system sees these it knows they aren't individual aminos and it knows they aren't bodily protein structures, so they must be... *foreign invaders*.

So it launches an immune response — *against partially broken down proteins*. And immune responses create inflammation.

Then, if this happens on a daily basis, because you have low stomach acid, it becomes a *continually created inflammation* in the body wherever these partial proteins land[11].

This means a continual extra load on your immune system which is needed for muscle building and overall health, and it also means a continual source of stress for the body. And continual stress means a continual releasing of cortisol, the stress hormone that both breaks down muscle and instructs the body to *store fat*. Maybe just a little bit. But along with other causes, it adds up much more than you think.

Now, this might be so little that you don't notice, or it may show up as fibromyalgia, lethargy, or rheumatoid arthritis when these land at the joints, or just: "my body hurts." Either way, this doesn't work for building muscle or losing fat.

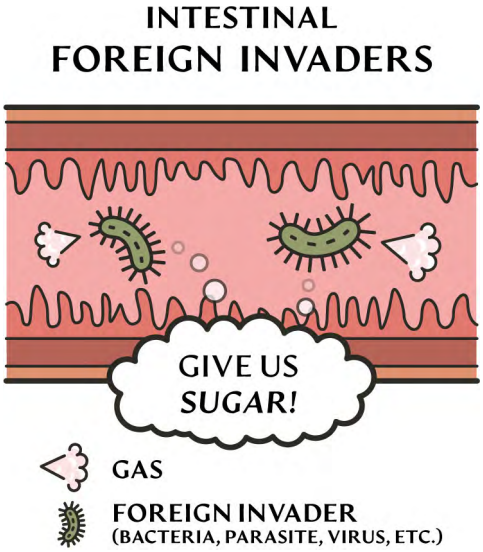
Also, if we have low stomach acid levels here, and more harmful bacteria make their way into the small intestine without being killed in the stomach, they can take root in the intestine and grow. It's not acidic there. It's dark and it's warm. They love it[12]!

And they can start to consume some of the food that you ate.

What do they give you in return? Gas and bloating.

They're *not* good tenants.

But now, not only are you losing some of the protein you ate from it not being broken down enough to be used, you're also losing it to these bacteria who eat some of it, and to cortisol released due to inflammation, which breaks down muscle and increases fat storage[13].



This may seem small.

It's not.

It affects our hormones, our energy levels, our cravings, our mood, and our ability to gain and lose muscle and fat.

So we need these proteins fully broken down.

This is one reason PerfectAmino is so effective. It's already fully broken down so that no matter the state of your digestive tract you're getting all of that protein.

But don't worry, we'll be working on your digestion during this program as well. You just might not notice.

Alright, onto the next part.

AMINO ACIDS, GROWTH HORMONE, & BUILDING MUSCLE

Your muscles are made of fibers, which are made of individual cells fused together. Throughout these fibers are tiny blood vessels that carry amino acids, fats, glucose (blood sugar), and vitamins and minerals to the cells so they can grow and heal.

If this blood flow is slowed the cells don't get what they need as quickly, or get less of what they need when they need it. This can lead to loss of muscle after workouts, or very slow growth, as the nutrients aren't getting through to the muscle to repair it.

There are also tendons and ligaments here, attaching the muscles to bone and holding together joints so they flex and move properly. These take longer to heal than muscle. We actually see most injuries occurring when these tendons and ligaments aren't given enough time to heal fully alongside the muscle.

Lastly, around the outside of these muscle fibers are things called satellite cells — cells kind of just sitting there, waiting.

Now, when you workout you damage the cells in your muscle fibers. And this triggers the release of Testosterone, Human Growth Hormone, and Growth Factors (more hormones). It also releases something called IGF, or Insulin-like Growth Factor, which comes out whenever growth hormones are released. But IGF mainly has to do with the burning of fat.

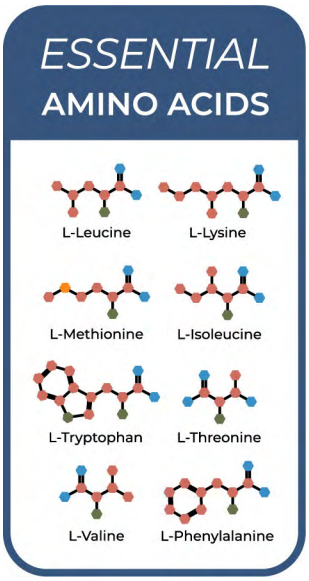
These hormones tell the satellite cells to take up amino acids, minerals, fats and other nutrients and go to the injured sites in the muscle and start multiplying into new cells. This is both to replace the damaged cells, but also to add more, growing the muscle[14].

They also add to the blood vessels there, slowly extending them and making new ones over time to account for the added muscle. And, of course, they work to heal the nerves, tendons and ligaments, which must get stronger to take on greater weights. This takes a *lot* of protein (and fat, as covered later).

So we consume "protein," make sure our digestion is top notch, and call it day.

But we're in the third dimension now. And proteins are *not* equal.

We know the proteins must be broken down into individual amino acids when we consume them in order for them to be used. But... from those amino acids there are ones which will be used to build new proteins... and ones which won't.



I mentioned earlier that some proteins are converted to sugar. Here's how:

There are more than 20 amino acids. Some are called "essential" amino acids, and some "non-essential".

And while they're all technically "essential," the ones we call *essential amino acids* (EAAs) are aminos that cannot be made by the body, but must come from an outside source. Then, if the body has *all* of them, it can make any of the *non-essential* amino acids it needs in order to make any of the tens of thousands of different protein and collagen structures used throughout the human body.

But your body must have all of the essential amino acids to do this. If you're missing one or more, as in the case of BCAAs which are only 3 of the EAAs, then the body can't make new protein or collagen. It's not physically possible and no amount of shiny advertising or paid sponsors will change that.

Also, the body doesn't need just one of each. It needs specific amounts of each EAA in an exact ratio one to another in order to build new protein and collagen.

If it has extra EAAs that can't be paired up, then these can't be used. Or, if it has extra *non*-essential amino acids, these are also not used for protein building.

And that's one of the main trouble spots with low EAA sources like whey, pea, collagen powders and BCAAs. See, your body has no way to store excess amino acids to save them for later, the way it does with carbs and fats. In fact, there is a window of about 2-3 hours, after which these aminos are out of the bloodstream.

So if the aminos couldn't be paired to build new protein during this time then they go through a process called gluconeogenesis, in the liver, which converts them to glucose - sugar[15].

And, during this same process, these amino acids release nitrogen waste as a byproduct of the conversion to glucose, which must be cleared out by the kidneys and can overload them if too much[16].

That's actually how we measure protein utilization. Because each amino acid has an exact quantity of nitrogen. So we can have someone consume some protein, measure the nitrogen content in that protein, and then see how much nitrogen comes out in the urine — this shows how much of the aminos went through gluconeogenesis instead of being used to build new protein.

That's also where the idea that too much protein is toxic comes from. It is... if it's too much of the *wrong protein* that can't be utilized well as *protein* and so is converted to glucose and nitrogen waste.

The lower the amino acid utilization, the higher the kidney load and calories. *And every protein source is different*.

So you take whey, which only contains enough EAAs in the proper ratio to be utilized at 18%, and we see that we potentially have 82% of it which is converted to glucose — sugar.

You then take a scoop of 30 grams of whey protein thinking you're getting 30 grams of protein. But actually your body is getting about 5 grams of protein and 25 grams of carbs.

(But hey, maybe you're lucky and your digestion is bad. In that case it's not digested enough to be turned into glucose and instead just travels through the body causing inflammation and raising cortisol levels. Yay!)

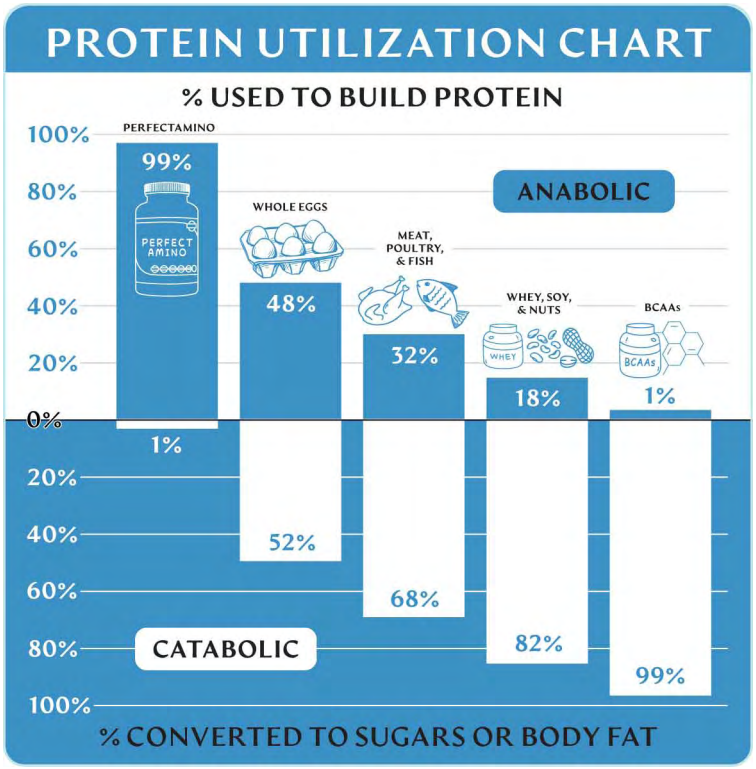
Anyways.

Pea and soy are utilized to build new protein at 16% with the rest going to glucose.

Collagen powder varies depending on EAAs added by the manufacturer, but is generally not above 20%.

Meats are utilized at 32% and whole eggs at 48% (but they must be whole eggs. Egg whites alone are 16% utilized). Then **PerfectAmino** is 99% utilized.

This means that 30 grams of protein from whey, 15



grams of protein from meat, 10 grams of protein from whole eggs and 5 grams of PerfectAmino… all give the same amount of usable protein to your body. But as we go up, from PerfectAmino, to eggs, to meat and then whey, with each higher number we're getting more glucose formed from excess amino acids — *more calories*.

And if you do that too much then, yes, you're going to be bulking in fat as much as you are muscle, a problem the golden age bodybuilders didn't have as they had no whey or BCAAs, only natural, organic, grass-fed or wild-caught protein sources.

Okay, so where does this leave us?

Well, we're losing some protein to low utilization, some to poor digestion, some to bacteria and parasites… should we ask Uncle Sam if he wants some too?

Mmmm…

Alright, before we go further here we need to look at your body fat and what adds to it or subtracts from it, because fat loss and muscle building are inextricably linked, just as fat building and muscle loss are as well.

Here we go.

ABOUT 90% OF THE FAT ON AND IN YOUR BODY COMES FROM…SUGAR

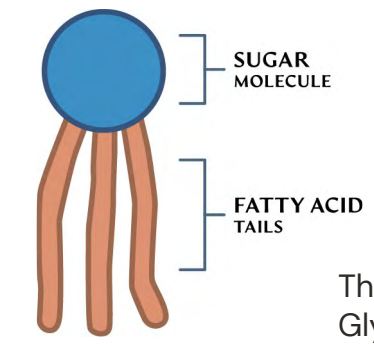
Now, before you get scared and think: "oh no, this is another low carb diet!"

No — *it's not*.

It's actually a variable program person to person. Some people will do higher fat and lower carb and some will do higher carb and lower fat. All will do higher protein.

In fact, in the trials we found that as long as the carbs were *natural* carbs people could lose fat just as well on higher carbs as on higher fat. It's *processed* carbs that mess everything up. But we'll get into how that works further down.

Now, when we think of gaining fat or "being overweight" we're not talking about the fat that makes up part of each of our cells. No, we're talking about the fat under our skin in our *fat* cells, which *only* exist to store fat. This is about 90%-95% of what we think of as our body fat[17].



TRIGLYCERIDE

But this fat isn't just made of fat. It's made of part sugar and part fatty acid and looks a bit like a tadpole with a sugar head and a tail made from a fatty acid *chain*.

Now, each fat has one sugar head. But they can have one, two, or three fatty acid tails depending on what kind of fat they are.

The fats that make up your "body fat" are called triglycerides. Glyceride refers to the sugar head, and "Tri-" is for *three* fatty

acid tails. These Triglycerides are the fats stored in your fat cells and what you're trying to keep off your body if you want to be lean.

(They can also be stuck to the walls of your blood vessels or shoved in between cells in your organs, causing trouble. But that's something else.)

But no matter where they are, triglycerides require both the sugar head and the three fatty acid tails. If you only had sugars or only had fatty acid chains, you wouldn't get one of these triglycerides and it *couldn't* be stored in your fat cells[18].

So how are these formed?

When we eat carbohydrates it's all one thing to the body — *sugar*.

Some sugars may be broken down slower and some faster, but they all end up as glucose — blood sugar.

Now, when sugar hits the blood stream it needs to be cleared out for two main reasons: first, so it can be used as energy[19] and second, because higher levels of sugar are *harmful to the walls of our blood vessels and can cause injury* to them[20].

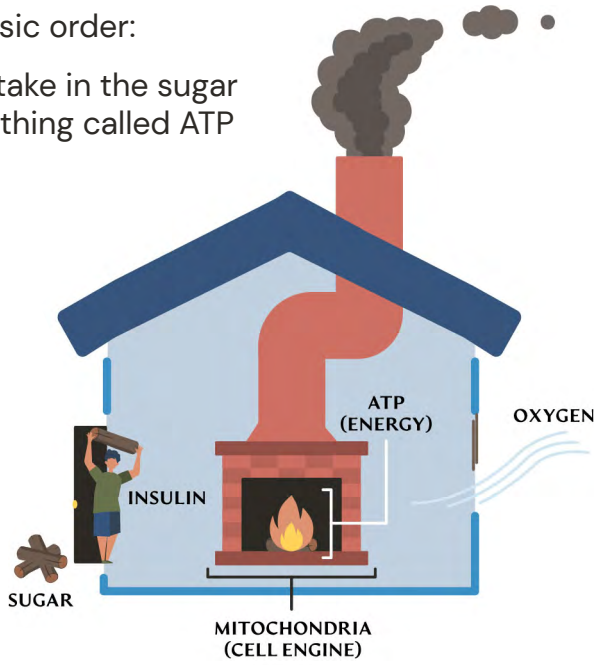
So when sugar comes in our body releases a hormone called Insulin to clear it out of the blood stream.

Insulin does one of three main things in this basic order:

First, it tells the cells throughout your body to take in the sugar so it can be mixed with oxygen to create something called ATP (the actual energy form the cells use).

Second, if the cells are full, then it tells the muscle and liver to take in the extra sugar and turn it into *chains* of sugar to be stored for easy use in the future. These chains of sugar are called *glycogen*[21].

And lastly, if there is still too much sugar for the above, because both the cells and the glycogen stores are full, then insulin directs the body to connect up the sugar with fatty acid chains and convert it all into triglycerides — body fat — which is then stored in your fat cells. This fat is a sort of energy savings account[22].



CELL

Then, later on, if the cells are out of glucose (sugar), and there is no more sugar in the blood, the body releases a hormone called glucagon which goes to the muscles and liver and converts the glycogen (stored chains of sugar) back into individual glucoses for use[23]. This causes the release of insulin again which then lets this released sugar into the cells.

Later, if these cells are again empty, and all the glycogen stores are depleted, the glucagon tells the body to release an enzyme (bodily chemical) called Lipase.

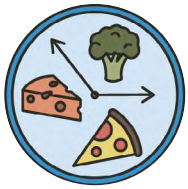
The Lipase goes to the fat cells and starts breaking down the triglycerides (body fat). It does this by releasing the sugar head (glucose), but also by converting the fatty acid chains into something called ketones. It's a bit more complicated than that, but ketones are basically another energy source the cells can use in place of glucose[24].

Now, while all of this is happening all of the time to *some* degree, it all happens mainly in that basic order.

So from a practical view we see that if we consume more carbs than our bodies can put into the cells or store as glycogen, then we build fat. And if we have extra fat we want to get rid of, we need to consume less carbs than our body needs to operate so that it's willing to tap into the fat stores for energy instead.

Also important: while insulin is in your blood stream (which it will be until the sugar is cleared out), the hormone glucagon, and the fat-burning enzyme lipase, are *suppressed*, and fat burning is *very minimal*. Obviously, because why use your savings account (body fat) when you've got new energy coming in already[25]?

But this means that if we're constantly eating high sugar foods, we have higher insulin levels in our blood stream throughout the day and no amount of exercise will get rid of our fat.



This is why people do intermittent fasting or fasted workouts. They eat dinner at around 6pm and then don't eat breakfast the next morning. At this point the sugar and insulin has been out of the blood stream for many hours and, if a workout is done, the body will quickly go through its glycogen stores and then tap into the fat stores.

Then, if the person doesn't eat again until lunch time you have several hours where glucagon and lipase are active to break down fat for energy.

Unfortunately, you also have protein breakdown during this time which can lead to muscle loss. But don't worry, PerfectAmino prevents that muscle loss without breaking the fast.

Now, it's a bit irrelevant as we won't be doing intermittent fasting on this program (it's not needed with how everything is set up), but *if you'd like to* we can adjust things for you to do so.

So to recap: While sugar is in the blood stream we have the potential of fat creation and the prevention of fat-burning. And when sugar is out of the blood stream for many hours we get fat being utilized for energy, and so, fat loss.

But this is very two dimensional. We need more...

INSULIN RESISTANCE, LOW ENERGY, & THE LOSING BATTLE WITH FAT

Alright, we understand now that when sugar is in the blood stream insulin is released to send it into the cells for energy, or to store it as energy, or to convert it into fat.

But something can happen here when our diet is quite high in sugar over a long period of time, keeping our insulin levels high for longer each day.

The cells build up a resistance to the insulin. Meaning, when insulin comes knocking, trying to give the sugar to the cell so it can make energy, the cell says no and closes its doors.

This only happens a little bit at first, but over time happens more and more often.

You see, we keep eating high amounts of sugar, which releases high amounts of insulin. And this insulin is then trying to stuff this sugar into the cells because it needs it out of the blood stream *now* so it doesn't harm your blood vessels!

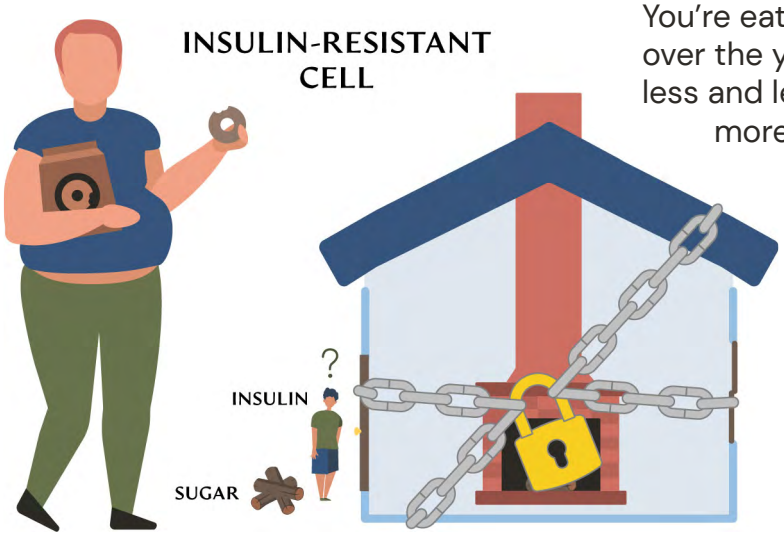
But after a while (years) the cells start getting fed up. They're getting too much sugar. They can't hold it all. They're sick of insulin knocking at their door at all hours of the night like some drunk ex-boyfriend.

So the next time insulin comes knocking the cells are a bit hesitant to open the door. And after a while they get so fed up that they might refuse to open the door at all... *even when they need that sugar*.

This means sugar starts stacking up in the blood stream. And the more sugar in the blood, the more insulin is released to shove it into the cells.

And if the cells aren't taking it, then it's going to go to fat — *even if the cells actually need it*.

And the less sugar going into the cells when they actually need it, the more tired you will be, because your cells don't have what they need to make energy.



You're eating, probably more and more over the years, but your cells are getting less and less of the food and more and more of it is being stored as fat.

This is insulin resistance, the first step on that lonely road to type 2 diabetes[26].

But it's a road many are on without even knowing it. Because this isn't an exact point. It isn't that one day you're healthy and your cells respond immediately to

insulin and the next day you're insulin resistant.

It's a gradual process over years, and *at least* half the people in the US are somewhere on this path just because of the foods available to us these days.

And chances are, if you have trouble losing fat, there is some degree of insulin resistance going on.

Don't worry, it's completely reversible naturally, in fact we'll be doing that during this program[27]. And it takes much less time to reverse it than it does to create the situation in the first place — only weeks, or maybe months for some with full Type 2 diabetes.

But it's an important point to bring up. We want to lose fat and build muscle, and then build muscle without a bunch of excess fat. If you're insulin resistant to whatever degree this makes it much harder[28].

The body is pumping in more and more insulin to get the cells to take in the sugar. But when they won't it's not just that the insulin then stores it as fat. It's also that, while insulin is present, almost no fat burning can take place. Double whammy.

We need you insulin-*sensitive*, meaning your cells react to insulin and immediately open their doors to let the sugar in.

The more insulin-*sensitive* you are, the less insulin your body needs to pump into the blood stream to shove sugar into the cells and the sooner it clears out of the blood stream. So we get less and less fat gain and it becomes easier and easier to lose the fat that is there.

Energy levels rise, mood rises, and muscle gains rise as well, though we'll cover how that happens a little bit later.

And do you know how simple it is to do this? Very.

So simple it seems *too* simple.

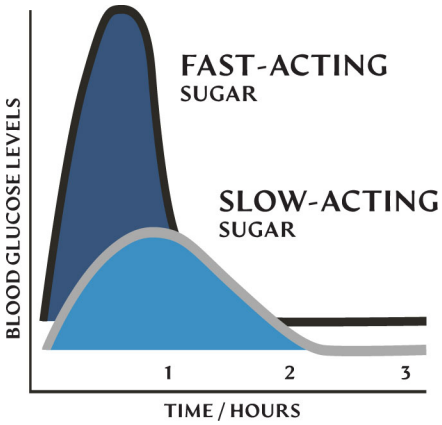
If high levels of sugar brought about high levels of insulin, and so insulin resistance... we just cut down those high sugar levels and, after a couple weeks or months, your cells will become insulin sensitive again.

It really is that simple. And don't worry, the protocol in this guide will make that process as pain-free as can be.

But we do need to get these insulin levels down and any insulin resistance *reversed* if we want to lose fat and then *continue to keep it off easily*.

But there's still a bit more to this, because some fruit or rice on a daily basis isn't going to cause this.

FAST-ACTING SUGARS VS SLOW-ACTING SUGARS & THE BALLOONING OF A NATION



You may have heard or read about the Glycemic Index. This rates different sugar sources on a scale from high to low. Sugars higher on the scale are digested, absorbed and put into the blood stream faster, while sugars lower on the scale are digested, absorbed and put to use more slowly.

Yes, in the end it's all sugar. But we're in the third dimension now, and how these different sugars *enter* the body, or in the case of processed sugars, how they *slam* into the body, determines the body's immediate *response* to them and how much, if any, fat is created.

Slow-digesting carbs raise insulin slowly over time and to a lesser degree, while fast-digesting carbs, coming in very suddenly, can rocket insulin levels, putting your body into shock.

You see, insulin isn't released in exact amounts[29].

It's not one squirt of insulin for 5 grams of sugar, two squirts for 10 and so on.

No. For a slow digesting carb it's maybe a "little bit" let out over time, just enough to shuttle it into the cells. But for a few donuts, some Ben & Jerry's and a Coke, where leaving that high amount of sugar in the bloodstream for too long can cause real damage to your blood vessels, it's: *"Release the Kraken!"*

(In fact, if you're used to a diet high in processed sugars you may not even notice it at this point as your body can go numb to its effects. But once we get you off these for a bit, go grab a box of Krispy Cremes and oh boy will you notice it.)

So we have these fast-acting sugars not only releasing insulin faster, but in greater *quantity* overall. Add in insulin resistance, where the body *already* needs to release more insulin on top of this just to get the cells to take in the sugar, and we get even higher levels of insulin and fat storage.

This is because, as the cells won't take it in, the body thinks more insulin is necessary. It *needs* that high level of sugar out of the blood — *now*. So it keeps releasing insulin until either the cells take the sugar in or the sugar is converted to fat. One or the other, insulin doesn't care.

In fact, if you're insulin resistant you'll find that if you consume a slow-acting sugar it will feel like it doesn't satisfy you like processed sugars do. This is not just because it's slower-acting, it's also because the processed sugars *force* the body to release so much more insulin to take them in, but the slow-acting sugars make it release less, so it's much slower to get into the insulin-resistant cells as there's less insulin to force it in.

So how much insulin does the body release? It depends on how fast-acting the sugar is and how insulin resistant the person is.

But now, with insulin resistance, as the cells didn't get their sugar because it went to fat, *they're still hungry and demand more sugar!*

So you eat more.

But the cells *still* don't get enough, because they won't let it in. So you eat more...

Now, this could be you or not to one degree or another, but this is at a very high level these days, mainly because of the very high levels of *processed* sugars in almost all of our foods and drinks — even the "healthy" ones.

If those carbs have been processed at all, even if organic, they will in most cases now be fast-acting sugars.

In fact, when it comes to sugary *drinks* in particular, like soda or juices with high fructose corn syrup added, they hit so fast that while they really are providing the same amount of calories as a solid-food carb source your body is not *recognizing* them as calories in, and so they in no way lower appetite. They're just pure added insulin boosters[30].

Think about it. You can have a bowl of pasta, pure carbs, and feel like you ate something. Or you can have a can of Coke and get about the same carbs. But do you feel like you had a meal? Same amount of calories, but it's how they are *used*.

No. Our bodies weren't made for these processed sugars. They don't know how to deal with them. They throw things off[31].

Most people for the first half of the last century still bought food that came from farms near them and prepared their own meals. And cane sugar was more expensive, so they bought less of it.

And, as they weren't accustomed to a lot of sugar, a little went a long way. Apple pie back then wasn't apple pie today.

And our ancestors definitely didn't have access to this stuff.

There were no candy bar trees or loaves of sourdough roaming the plains.

Sugar sources were *very* few and far between. Maybe they lucked on some honey or a fruit tree, or planted maize and grains to eat.

But these weren't *refined* before use, something that turns them from slow-acting to fast-acting.

In short, they may have had wild blueberries, but there were no wild blueberry muffins.

No, our bodies evolved on a *low sugar diet*, or at least slow-acting sugars.

The current sugar levels are why seven-year-old type 2 diabetics are now common.

They weren't just rare before, they didn't exist.

Let's look at some actual hard data here:

In 1970 a new kind of sugar came on the scene: High Fructose Corn Syrup[32].

Now, fructose — *actual* fructose — is just the sugar in fruits. But High Fructose Corn Syrup is something very different. And it hits hard and fast.

From 1970 onwards it started being used little by little. But it didn't really take off until 1984 when, here in the US, Coke and Pepsi switched from sugar to this (it's less expensive than cane sugar), followed soon after by other soda companies[33].

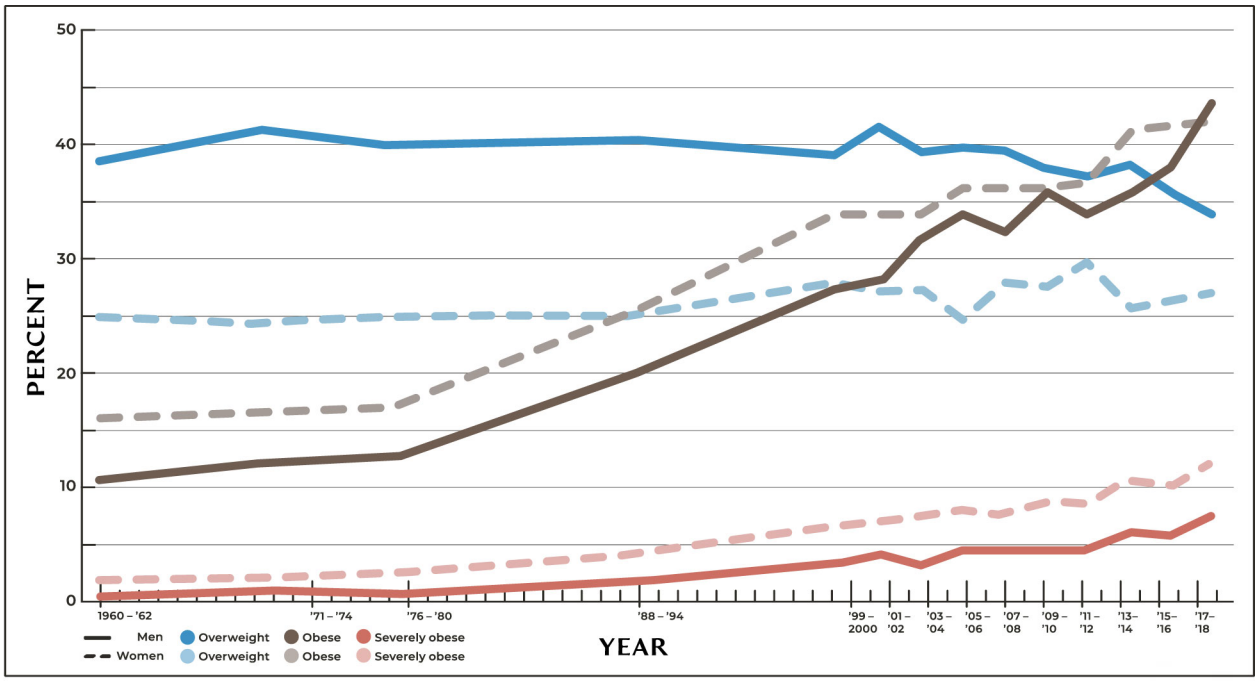
From there it started being used in more and more places: juices, foods, packaged foods, protein bars and candy bars, chips, crackers, and even bread.

It's now in almost all packaged foods, even the ones that aren't "sweet," and under all sorts of different names. Why? Because it's cheap and it's addictive.

It ensures returning customers.

But let's look at how this product affected things.

Here is a graph of obesity rates in the US for the last many decades, courtesy of the CDC. On it you see statistics for overweight, obese and severely obese.

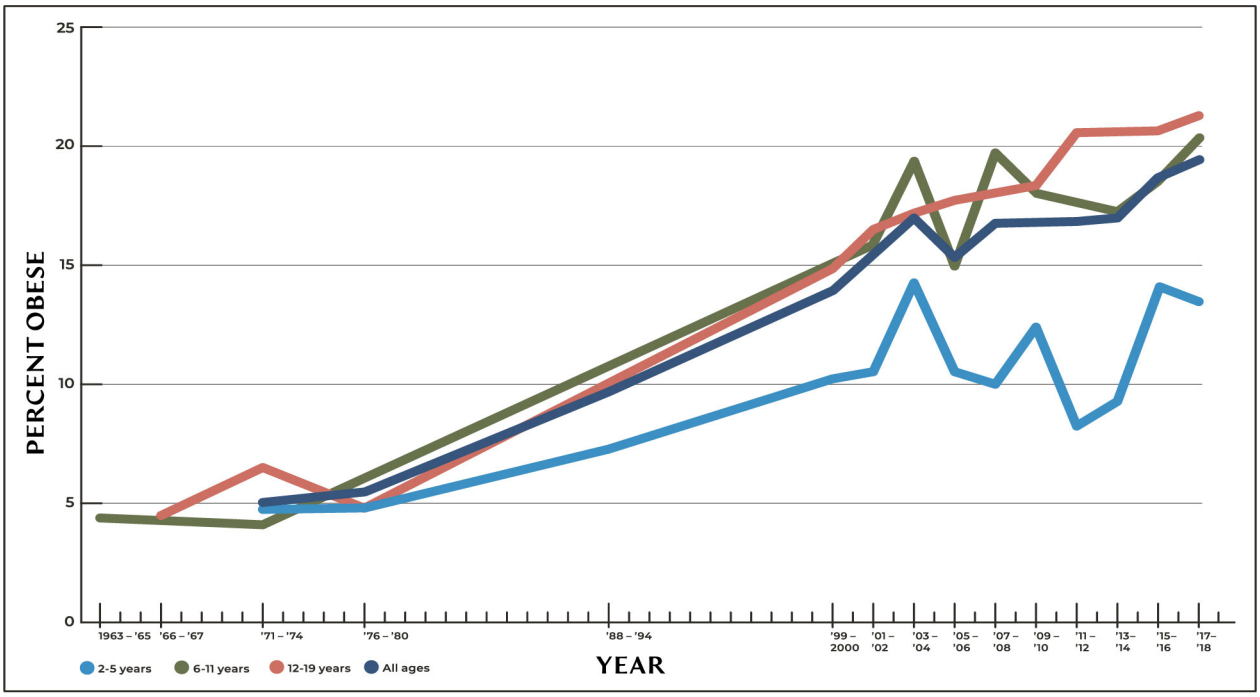


NOTE: Data is age-adjusted by the direct method to U.S. Census 2000 estimates using age groups 20-39, 40-59, and 60-74. Overweight is body mass index (BMI) of 25.0-29.9 kg/m². Obesity is BMI at or above 30.0 kg/m². Severe obesity is BMI at or above 40.0 kg/m². Pregnant women are excluded from the analysis.
SOURCES: National Center for Health Statistics, National Health Examination Survey, and National Health and Examination Surveys.

Now, "overweight" is actually falling slightly. But that's not because less people are overweight. No, they're just moving up in the world — to obesity.

From the late 70's to now we see the percentage of obese adults in the US go from about 12% for men and 16% for women, up to over 40% for both. Severe obesity is also rising, starting at the same time[34].

And here you can see a graph of children by different age ranges, and you see the increase here starts at the same time as well[35]:



NOTE: Obesity is body mass index (BMI) at or above the 95th percentile from the sex-specific BMI-for-age 2000 CDC Growth Charts.
SOURCES: National Center for Health Statistics, National Health Examination Surverys II (ages 6-11), III (ages 12-17); and National Health and Nutrition Examination Surveys (NHANES) I-III,and NHANES 1999-2000, 2001-2002,2003-2004, 2005-2006, 2007-2008, 2009-2010, 2011-2012, 2013-2014, 2015-2016, and 2017-2018.

This is fast-acting processed sugars greatly increasing insulin levels and *keeping them high,* while *prioritizing fat storage* over fat loss and *creating* insulin resistance over time.

If we want to lose fat and keep it off, and gain muscle without excess fat, we need to change some things. And once we do it becomes a breeze.

Moving on.

HOW BLOOD FLOW AFFECTS MUSCLE BUILDING & FAT LOSS

Processed sugars raise blood pressure and are one of the biggest factors in heart disease. But on a lesser level they just make it harder to lose fat and build muscle, and they lower energy levels. They do this in two ways.

First, I mentioned earlier that high levels of sugar cause inflammation in the blood vessels. They actually *injure* the walls of the blood vessels.

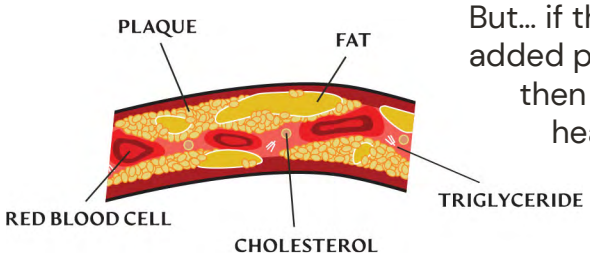
Now, it's not just processed sugars that do this, it's also trans fats (which we'll cover), environmental toxins, and partially digested proteins as covered earlier. All of these can injure the walls of the blood vessels.

But the body's *solution* to this is the problem, because it puts a bandage on the injured portion of the wall. And this bandage is called plaque and it sticks out into the passageway, taking up space and narrowing it. And it's very hard to get rid of.

Second, when we eat these high levels of processed sugars we don't just see triglycerides forming and being stored in fat cells. These triglycerides can also start forming *inside the blood vessels themselves*, sticking to the walls and *further* narrowing them along with the plaque. This is called visceral fat.

Now, some of these blood vessels are only 5 micrometers wide (microscopic). And red blood cells, the ones that carry oxygen which your cells need in order to survive, are 6-8 micrometers wide, bigger than the passages they need to go through.

This is fine as, in a healthy person, the cell can just flatten out and squeeze through these narrow passages.



But... if the passages get *too* narrow, because of added plaque and triglycerides stuck to their walls, then the blood cells can get stuck and the heart has to pump harder, raising your blood pressure to *pressure* the blood cells through the tiny passage. That's what high blood pressure is.

This also causes you to be out of breath and is one thing that causes low energy. Your cells need that oxygen in the red blood cells to mix with sugar to make energy and survive. If they can't get enough oxygen fast enough to keep up with the energy demands you put on them then their ability to make energy can lessen and they can even die faster over time.

You breathe *solely* to get your cells this oxygen to make energy. But in this case, you're breathing... but the cells aren't getting all of that oxygen, or not fast enough.

This slowed blood flow also slows the ability of the cells to get nutrients like amino acids, carbs and fats.

We see this with smokers. You're not supposed to smoke for at least two weeks after a surgery. This is because smoke slows blood flow, which gets less nutrients and oxygen to the cells that need it so they can heal.

The same thing goes for healing muscle so it can grow, and burning fat. We need that blood flow smooth and fast.

If we mainly eat low glycemic carbohydrates — and no processed sugars — these will take longer to break down and so will release their sugar over a longer period of time. This means less insulin. This means we become insulin-sensitive, not

insulin-resistant, so our cells will use the energy we give them.

Same amount of sugar, less impact on the body overall and less *reaction* from it.

Does that make sense? These changes to our diet have been happening so gradually, over decades, that we barely noticed. But their effects have been huge. It's time to turn things around.

Alright, before we enter the realm of fats we need to cover some hormones.

And we're going to start with the ones making it hard to not eat that jelly roll.

HORMONES AND HOW THEY RELATE TO BODY FAT, MUSCLE GROWTH, & APPETITE

Hormones are messenger chemicals in the body. There are about 50 of them and they are key in muscle growth (not to mention bone, ligament, tendon, skin and nerve growth, sleep, energy, mood, mental ability, reproduction, appetite and much more). They are also key in sugar utilization, fat storage and fat loss as we saw above.

They deliver messages by hitting specific "receptors" on cells that are able to recognize them for what they are and receive and pass on their message into the cell.

If these hormones are out of balance or deficient then you will find it very hard to gain muscle in quantity, keep high energy levels, or lose fat easily — not just because the body isn't *telling* itself to lose fat or add muscle, but because it's telling itself *not* to.

It works like this: If you've just worked out, the body releases growth hormone to *tell* the muscle cells to increase uptake of amino acids to build new muscle. If bone needs to be strengthened or healed your body releases estrogen or testosterone to bring a message to the bone cells *telling* them to grow new bone cells. If it didn't then you couldn't build muscle or repair micro-fractures in bone that occur daily just by walking.

On the other hand, if you consume a lot of processed sugar your body releases insulin which *tells* the cells to take in the sugar and, if they won't, *tells* the body to convert the sugar to fat. It also increases cortisol, the "stress" hormone, which *tells* the body to store fat, especially around the belly, tells the body to break down muscle to convert it to energy, and *suppresses* testosterone and growth hormone.

These are very simplified examples, and other hormones also play roles in the above. In fact it's a very delicately balanced system. But that's *basically* how it works. Hormones deliver messages *telling* the cells what to do.

You could have all the nutrition in the world sitting in your body, but without hormones *telling* the cells when and how to use it... it would just sit there.

So let's look at some of the important hormones in regard to optimum muscle gain, fat regulation and appetite. Because if some of these are in low supply, or too high

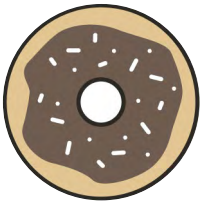
supply, or if your cells just won't "listen" to them anymore... then you won't get the gains you're looking for no matter what you do or eat.

This is why some people can't lose much fat even with extreme calorie restriction.

Instead of burning the fat their body just refuses to make more energy which just makes the person more tired and less active. A lot comes into play here, but this is actually hormonal.

Here we go...

WHY IT'S SO HARD TO GET OFF PROCESSED SUGAR



With cravings we have several things going on, and each one affects and drives the others.

First is insulin resistance, as covered above. If your cells are taking in less sugar because they're resisting insulin knocking at their door, then the cells have less energy to work with. That sugar is there, and insulin is happily converting it to fat, but your cells aren't getting it, so of course they're hungry and will keep telling you to eat more until they finally get some. The more insulin resistant you are, the more of what you eat is going to fat storage and less to your cells.

This will happen even if you just ate a lot of food. It's in your bloodstream but the cells aren't getting it so they're still hungry and demanding you eat more. And they'll especially crave fast-acting sugars in this case so they don't have to wait for a slow-digesting sugar to finally get to them. If they're starving then they want energy *now*. So insulin resistance created by processed sugars leads to more and more cravings for processed sugars. This is why you should never go grocery shopping when hungry.

The only way out of this is to cut down sugar levels, as you'll see later, cutting down insulin secretion and letting the cells get over themselves enough so they're willing to take in more sugar when it comes. This could take a week or two for some, or months in some extreme cases. But it does happen and the cells become insulin-*sensitive* once more and much less insulin is needed and much less fat storage occurs.

Then there are the bacteria in your upper intestine. If you've been on a higher sugar diet for some time, and your stomach acid is low, then likely you have some critters there — they *thrive* on processed sugar the most. And they seem to make their needs known if they don't get what they want. You will literally feel their cravings. If you don't feed them, and they start dying off, you feel their pain to a degree until they're dead[37].

And, as these critters are consuming some of your food, again, your cells are getting even less of what you're eating, in this case because some of the food is being diverted en route. So the cells will want fast-acting sugar to get them energy for this reason as well.

There is also the matter of an actual addiction the cells get to this processed sugar[38]. It hits the same pleasure receptors on cells as heroin does. It's a real addiction and they need to be gotten off of it one way or another. They're too used to it. This is, largely, discipline to get through the withdrawals, similar to reversing insulin resistance.

Lastly, remember that these big food companies hire very talented chemists. These foods are *made* to be addictive because they want you buying more[39].

You know the saying that you can't eat just one Dorito? You can't, the bag won't let you! Most people keep eating from the bag until they've got a stomach ache, take a 5 minute break, and then go back at it until they've finished the bag! And yet, according to their nutrition facts one serving is 12 chips and that's 150 calories.

But do you ever only eat 12? No, of course not. Well, there are 16 servings in that bag, so one bag is 2400 calories — *all fast-acting carbs, refined fats, and toxic flavorings and colorings*.

But they taste *sooooo* good. So we've got that hurdle to get over too.

Now, all of the above will take most people a week or two to get through. And don't worry, the protocol is designed to make this as gentle on you as possible and you *will* get through it, and you will be *very* happy you did. But it will take some discipline and having the **group** there will help as you can share your woes with others going through the same thing. At least you have a sympathetic ear to complain to, right?

But there is another aspect that plays a very large role in this. There are specific hormones that literally control the cravings that your brain makes: Leptin and Ghrelin[40, 41].

Leptin stops or lowers cravings and Ghrelin increases them. And of the two, Leptin seems to be the one most in control.

Now, this is an area where much more research needs to be done, but we do know key facts about it:

When we eat there is always some fat creation and break down, even if minimal. This is a constant process. There are also free floating fatty acids in the bloodstream which can be used for energy if needed. And the more fat you have on your body, the more free-floating fat you will have in your blood vessels.

Leptin is a hormone produced by the fat cells. This happens every time we eat, but also happens when there are higher amounts of fatty acids in the bloodstream or stored in our fat cells[42].

This Leptin then goes to the brain, where it hits specific leptin receptors in the hypothalamus (a part of the brain) and passes on the information that we've had enough food and so *don't* need to eat anymore. *And* that we can dip into our fat stores for energy now. In short, it tells us to not feel hungry.

Then, if time passes and leptin levels in the bloodstream lower, the brain sees this and knows it needs more food and so directs that ghrelin, the other hormone, is released by the stomach to *increase* hunger cravings and to not dip into fat stores for energy.

This is why ghrelin levels are highest before a meal. Ever had your stomach growling because you're hungry? That's ghrelin a'growlin. (I couldn't help myself.)

Now, here's the problem: the more fat the individual has on them, the more free fatty acids there are in the blood stream and the more leptin the fat cells release.

So the more fat you have, the less hungry you are, right?

Yeah... So what's happening here?

Well, like insulin resistance, there is something called leptin resistance where the brain literally doesn't "see" the leptin[43]. And as leptin is the brain's indicator that the body has eaten and has enough energy stores... if it doesn't *see* leptin, then it thinks it still needs food and so directs the release of ghrelin to make you hungry to eat more.

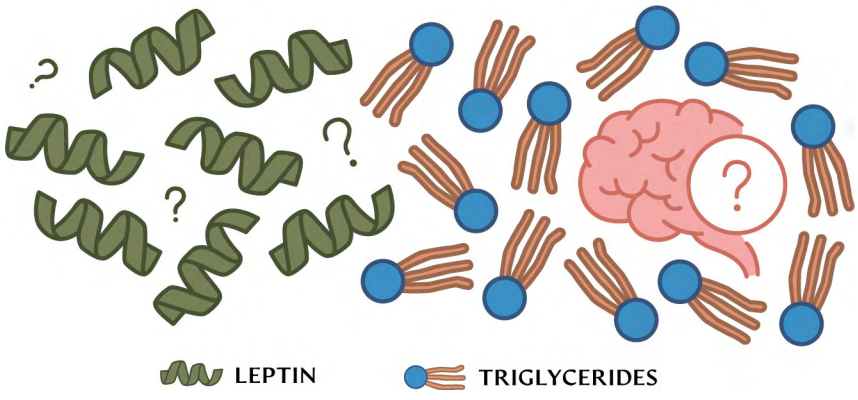
So, despite having just eaten we can continue to have more cravings. Your brain doesn't *see* any leptin, thinks you're starving and works very hard to make you eat more. And these cravings can be *very* strong.

One of the main things that causes this is excess triglycerides. There is something called the blood-brain barrier, a literal barrier that allows certain things through to the brain while keeping other things out, all to protect the brain.

But excess triglycerides can get stuck here and start clogging this barrier, making it harder for nutrients and other things to get through — like leptin.

So plenty of leptin is in the blood, but it can't make it through the barrier to be "seen" by the brain.

Another point is that just having overly high levels of leptin seems to increase leptin resistance. Though this is more similar to how too much insulin for too long creates insulin resistance. The leptin receptors in your brain become de-sensitized to the leptin, because its "always" there.



And last is inflammation (I told you it was important). High levels of inflammation raise cortisol, which we'll cover shortly, which raises ghrelin levels, increasing your appetite[45].

And one of the fats that raises inflammation the most is trans fat, which also gets clogged in the blood-brain barrier and can cause more trouble than triglycerides there.

This is one of the largest factors in yo-yo dieting (losing weight and then gaining it all right back again, because your cravings *never go away*).

You work hard to reduce processed sugar and calories and somehow push through the withdrawals and lose fat, maybe your cells become insulin sensitive again and come off their addiction to sugar, your small intestinal bacteria numbers go down as they're dying off due to less of the food they thrive on (processed sugars).

But... the brain still isn't "seeing" the leptin and so still sends ghrelin to keep you hungry. So we give in and go back to our old ways, gaining all of our fat back and then some.

So how do we fix this?

First, we need to get rid of these processed sugars as these are the main things that create so much excess triglycerides which clog the barrier and prevent leptin signaling.

Next, avoid processed foods. These, even when made from organic ingredients, are often in a form after processing that our digestive system has trouble breaking down and which can lead to inflammation, especially from rancid, refined fats and trans fats.

Also, partially digested proteins contribute to inflammation as we saw earlier, so we need to make sure the gut is in good health and properly functioning.

Also, get good sleep. Poor sleep, along with inflammation, raises cortisol levels which releases ghrelin, making one more hungry just because they're tired.

And lastly, but most importantly, protein is actually the key thing that reverses leptin resistance, which makes sense. The enzymes that break down triglycerides, including those clogging the blood-brain barrier, are all made of amino acids.

But these enzymes have a relatively short life and new ones constantly need to

be made. The less amino acids one has, the less enzymes their body can produce overall, lowering the breakdown of fat among other things.

This is one reason many people start having lowered appetites after taking PerfectAmino. Their bodies are now getting what they need to produce these enzymes in enough volume to start reversing this.

But even with high protein, if we don't reduce the source of the fat creation, we're just on a hamster wheel. So let's dig in a bit more.

CORTISOL — THE FAT-STORING, MUSCLE-DESTROYING, MOOD-KILLING HORMONE WE CAN'T LIVE WITHOUT

If you've ever had a shock and felt the adrenaline surge in your body then you've felt cortisol. It's a wake-you-up, get-you–ready-for-action hormone.

It really is. It hits its lowest point around midnight, so you can sleep, and then peaks about an hour after you've gotten up in the morning, getting you to wake up and get ready for the day.

It's nicknamed the "stress hormone" because it's released in moments of stress. So in a dangerous situation, or if you get scared suddenly, you'll feel it.

But when we have too-high levels of cortisol for too long, it can make us feel stressed… *even if we have no reason to be*[46].

It's these too-high levels that are bad.

High cortisol makes it hard to get good sleep, which we need in order to build muscle and lose fat (as well as just for our sanity).

It lowers serotonin levels (the "happy" neurotransmitter) and so can make us feel anxious or depressed or angry. And if we don't have something to feel that way about — *we'll find something*[47]*!*

Also, if we didn't get enough sleep because of high cortisol, guess what our body gives us to help us through our sleep-deprived day… *more cortisol!* It can lead to a pretty awful downward spiral.

But it also affects our muscle gains and fat levels, which is what this guide is about.

As you see above, it's supposed to be at its lowest at around midnight, when your growth hormone and IGF (fat-burning hormone) are spiking in order to build muscle and burn fat[48].

Well, if cortisol is raised at night then say goodbye to not just a good night's sleep, but night time fat-burning and muscle gain as well.

Because not only does cortisol, like insulin, give instructions to store fat, particularly in your belly, it also stimulates muscle *break-down*, and *suppresses* growth hormone, testosterone and IGF production[49].

Cortisol sends messages to not use your glycogen stores (the stored chains of sugar), to not use fat, but to store it, and instead… to use your muscle as a source of energy, breaking down the protein into amino acids and having these converted to glucose for energy.

Oh, and it also works with Ghrelin, that appetite increasing hormone, to increase cravings, particularly for high sugar foods for fast energy[50].

Don't get me wrong. If you were in a war, running to safety from enemy bullets with a half broken leg, it's cortisol that's making that possible.

The only thing is... *we're not running from bullets on a daily basis.* We're generally sitting at a desk. And while your boss may stress you out... it's just not quite the same.

But this isn't how it's supposed to work. Cortisol is supposed to be very short lasting and only come out a few times a day. It has exact duties and that's it. It's only when it gets *too high* for *too long* that it really causes trouble and makes losing fat and building muscle a labor of tears.

So what raises cortisol and how do we lower it?

Outside of actually stressful situations? Processed sugar, trans fat, high levels of omega 6 fatty acids (which we'll cover), environmental toxins and inflammation (injuries, infection or partially digested proteins)[51, 52, 53].

But high levels of processed sugar are one of the main things keeping cortisol levels high throughout the day[54].

And if we have high levels of sugar before bed, night after night, we'll have a pretty hard time getting good sleep, burning fat or building muscle due to the cortisol released each time.

From there, the lack of sleep it brings releases further cortisol to keep you awake the next day, and more cravings for sugar as fast energy which releases more cortisol all the while working along with its best buddy, insulin, to increase fat storage and depress energy and muscle gains.

Add in high Omega 6 fatty acid levels, which promote stress in the cells, releasing cortisol, as well as inflammation from poor digestion of proteins, trans fats and toxins in our food and water and we've got a tough hill to climb to lose fat and put on real muscle.

Which leads us to our next subject.

HUMAN GROWTH HORMONE & INSULIN-LIKE GROWTH FACTOR— BUILDING MUSCLE & BURNING FAT

Growth Hormone (GH or HGH) is a key hormone that helps us build muscle and burn fat[55].

As we covered, your muscles are made of cells that have been fused together into muscle fibers. And on the outside of these fibers are things called satellite cells.

When you work out you damage the cells in these muscle fibers. To fix this, your body releases Growth Hormone, Growth Factors (other hormones and Testosterone. These tell the satellite cells to start replicating to both repair and replace damaged cells in the muscle, and also to add more cells, increasing the muscle fibers in size.

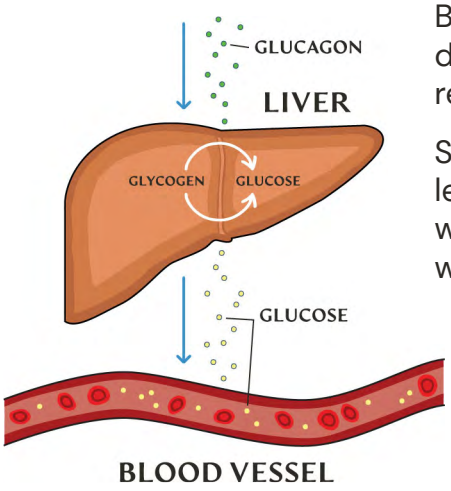
As the cells require amino acids to build, the growth hormones tell the cells to take in the amino acids. This is something we obviously want.

But GH does more: it helps regulate the metabolism in conjunction with your thyroid, stimulates the uptake of amino acids throughout your body to repair bones, ligaments, tendons and, really, most every cell in the body. It's even been called the "anti-aging" hormone as, if it's low, raising it can bring one's overall body health back to earlier, "younger" levels, "reversing" aging to a degree[56].

But it also stimulates the release of something else very important for fat burning:

There's a hormone called Insulin-like growth factor (IGF) and it's primary job is the releasing of energy for use between meals[57].

Much like glucagon, IGF tells the muscles and liver to release glycogen (stored sugar chains) into the blood stream for use. And if those are tapped out it stimulates the burning of fat for energy[58].



But while glucagon is released when blood sugar levels drop, IGF is mainly released when growth hormone is released, *and only on an empty stomach*.

So if we put attention on lowering our overall insulin levels, releasing glucagon, while raising our GH levels, we get not just one, but two fat-burning hormones working for us.

IGF also regulates cell growth, particularly nerve cells. Pretty important, especially if we're putting our body through hell while working out.

So let's look at what raises and lowers these hormones, and how to get the most out of them.

As far as releasing them there are four key things: resistance training, amino acids, fasting, and sleep.

First, when we work out we damage our muscles and this releases GH to build them back up. But it was found that maximum production occurred when we did not work our muscles to full muscle failure, but right before. This stimulates more release of GH, IGF and testosterone than going to muscle failure, and doing it to muscle failure or just past releases more cortisol. Work your muscles hard, but don't kill them[59].

We see an increase in growth hormone during the workout and then a drop after it. Then we see GH and IGF come to life at night, during sleep, and then again surge about 15-18 hours after the initial workout, whether you work out again the next day or not. This is because GH is produced in little spurts.

Next, just the consuming of protein causes the body to release GH to get the cells to take in the amino acids, even when not working out. This is one reason some people on keto have a harder time gaining muscle. Yes, they're off sugars, but they're not giving their body enough of what it needs to *build* — protein, amino acids.

The third point is fasting. When we're in a fasted state our insulin levels go very low and glucagon is released. When we do this for some time, glucagon simulates a process called autophagy. This is where the body starts doing a bit of spring cleaning among the cells, getting rid of the old ones and making new ones to replace them.

During this, GH is released to instruct the cells to take up amino acids to repair or replace old cells. We also see spikes in IGF and fat-burning for energy here.

One study found that 3 days into a fast GH levels increased over 300% and another study showed a 1250% increase 1 week in. But while those can be nice to do to clean out the old cells, you don't have to fast for the body to produce GH or lose fat[60].

The last point is sleep.

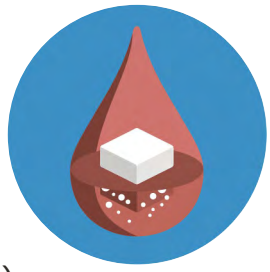
Sleep is one of the most important things when working out or doing exercise of any kind. It's when your body has a chance to rebuild. It's also when most of your fat-burning occurs.

This is because during the first 2 or so hours of sleep we get a significant release of GH and IGF. And reversely, lack of sleep leads to less GH and IGF production, which is why when trying to lose fat you want to get your sleep in good condition[61].

Okay, so what lowers it? A few things.

The amount of body fat you have is directly related to your GH production. The more fat you have, the less GH is produced[62]. The less body fat you have, the more GH is produced. So the more we lower this, the more GH we get.

And of course our friends processed sugar and insulin[63].



When our blood sugar is high, our insulin is high. And as GH is also a fat-burning hormone, it gets suppressed. So if you have a bunch of processed sugar right before or after a workout, we get a suppression of GH and IGF and, as too high insulin can make you tired, it can make workouts, and the recuperation afterwards, not so fun (this is less so if you're young, but it will catch up with you).

Then, if you have a sugary meal before bed, you're raising insulin and cortisol levels and lowering GH and IGF production. So instead of fat burning, you're going to have fat-*building* while you sleep.

Fun!

THE BATTLE OF THE BELLY — TESTOSTERONE, AROMATASE, & MALE ESTROGEN

Testosterone, like GH, is a large factor in both muscle bulk and strength, as well as fat-burning. It also helps regulate sex drive, bone mass, fat *distribution*, body composition, and the production of red blood cells and sperm.

As it's the "male" hormone we see much higher numbers in men than in women, though women still need this just as men still need some estrogen, the "female" hormone.

Normal testosterone levels give men that chiseled look, high energy levels, and strength. It helps improve mood and lowers the risk of disease. In women we see more definition and muscle, a more "toned" look and the curves you *want*.

The lower our testosterone levels get, the more fatigued we can feel. When very low we even find men in a bad mood or "chronically" depressed.

And it's harder to build muscle and lose fat.

But it's not just that lowered testosterone makes it harder to burn fat. Even more than that, the more body fat you *already* have... the less testosterone you will have.

This is because of an enzyme called aromatase which is *produced* by our fat cells.

You see, as far as their chemical profiles, testosterone and estrogen are nearly identical. So they can easily be changed, turning testosterone into estrogen or estrogen into testosterone.

This enzyme produced by fat cells, aromatase, takes the testosterone a man's body produces and converts it into estrogen — a necessary hormone for men in low quantity, but also a fat-*storage* hormone[64]. This is why women have more body fat than men, the higher levels of estrogen.

So the more fat a man is carrying, the more aromatase he will produce. The more aromatase, the more testosterone is converted to estrogen. The more estrogen, the more fat-building. Yeah, it can get pretty bad.

Estrogen curves edges and promotes breasts and larger bellies, in women *and* men.

Most men think this has to do with age, and it does, some. But testosterone levels, even in young men, have been dropping for decades now. This isn't "dropping as one gets older." This is a man in his 30's today having lower average levels of T than a man in his 30's forty years ago[65].

In fact, overall levels have been dropping about 1% each year for the last 50 years at least — *for all ages*. We see this most drastically in sperm counts which are down an average 60% since 1970[66]. This is why we have so many fertility clinics now. We didn't *need* them before.

But this is higher levels of processed sugar raising insulin and cortisol and thus body fat levels, which in turn converts testosterone into estrogen in men.

It's also the introduction of more and more chemicals into our food, water, and air supplies, many of which either *act as* estrogen in the body or, through their toxicity, shock the body, stimulating the release of cortisol[67].

To raise testosterone levels we mainly need to do the same things we do for GH — cut out the processed sugars and trans fats and give ourselves enough *real* protein

and cholesterol our body can actually use. Testosterone is made from cholesterol and these low-cholesterol diets are wreaking havoc on our bodies.

Then we need to workout our muscles, progressively overloading them with higher and higher weights, while giving them time to recuperate and getting good sleep in between.

And we need to make sure we're staying away from trans fats, getting filtered water free of toxic chemicals and plastics from plastic water bottles, and consuming only organic foods. Many of these toxins *mimic* estrogens molecularly, so your cells can mistake them as estrogens and so act as if they just received a direction from estrogen — not something you want, but something that is happening in high quantity if you drink unfiltered or plastic-bottled water or consume processed foods or non-organic meats or plants.

With the above, if we add to our diet vitamin D, zinc, coQ10 and magnesium, as well as Omega 3 fatty acids, we'll lower cortisol levels and raise testosterone levels naturally. These two hormones have a sort of see-saw like action; when one rises, the other lowers and vice versa[68, 69].

Then of course, what lowers estrogen in our body also raises testosterone.

For this we have magnesium and fiber being very important. Fiber helps remove excess estrogen and stabilizes blood sugar levels. And magnesium allows the body to absorb calcium and regulates the pituitary gland, a gland which in turn regulates hormone levels overall.

Magnesium is also very calming, helping to lower cortisol levels before sleep and most people are deficient in it as it's actually *processed out* of a majority of our foods these days.

Vitamin B6 also helps reduce estrogen levels in the blood.

And, as thyroid is made from tyrosine, an amino acid, and iodine, then as long as we're getting our iodine and PerfectAmino in our body is more able to produce thyroid, helping all of this (thyroid helps regulate all hormones and energy usage).

All of this is actually pretty simple. Almost too simple. But it works, and that's what matters.

Also, as a note: If you ever elect to get hormone replacement therapy, first make sure it's Bio-identical hormones, not some artificial chemical.

Second, only take as much as your body would naturally produce on its own in its 30's. When we give our bodies too high levels of testosterone or estrogen it reacts to try to balance it out by converting much of that hormone to the other, often causing more problems than what you were trying to solve in the first place.

So. All in moderation, hmm?

WHY SOME WOMEN JUST "CAN'T" LOSE FAT — PROGESTERONE, LOW THYROID, CORTISOL, & ESTROGEN DOMINANCE

Estrogen is a category of three different hormones which promote the development and maintenance of female characteristics in the body (though it's also produced to a lesser degree in men just as testosterone is produced in smaller amounts in women.)

Estrogens help develop and maintain the reproductive system, contribute to cognitive health, bone health and the function of the cardiovascular system, and assist with many other essential bodily processes.

They also *promote fat storage*, and *raise insulin levels*.

Progesterone is a hormone released by the ovaries and plays important roles in the menstrual cycle and in maintaining the early stages of pregnancy.

It also *promotes fat loss*.

Progesterone is the hormone that keeps your estrogen levels in balance.

Thyroid is a hormone that regulates your metabolism (all the processes in the body that deal with the production and use of energy).

It works to increase the energy production in each cell and the rate at which energy is *used* by the body (And that energy is *carbs* and *stored fat*, something we *want* to be used). It also makes other hormones, and helps to regulate other hormones.

Now, these hormones are all very necessary. But when these hormones are not in balance we have trouble. Both in our overall health, but also in our ability to gain and lose fat and muscle.

Estrogen and Progesterone balance each other out. When progesterone levels drop our estrogen levels rise and we get something called estrogen dominance. This lowers our ability to lose fat, increases our likelihood to gain fat, and lowers our energy levels (among many other things)[70].

Here's how this works:

When we consume carbs we release insulin. Consume fast-acting carbs and we get higher levels of insulin.

This insulin triggers the release of cortisol, which we know also increases fat stores and breaks down muscle if in high quantity. But in *women* the body gets this cortisol in large part by synthesizing cortisol from your *progesterone*. It actually takes the progesterone your body produces and *changes* it into cortisol.

Then, if there is a constant flow of fast-acting sugars, this keeps cortisol levels high and so progesterone levels low. But progesterone is necessary to keep estrogen levels in check. So now estrogen levels go up.

Estrogen is necessary for many things, but it plays a very large roll in fat storage and insulin levels. And it does this in a few ways.

First, estrogen actually gets stored in the fat cells. But, these fat cells also trigger more fat storage because… they synthesize estrogen from *other* hormones, like testosterone. They *convert* these hormones into estrogen.

So estrogen levels go up, this pushes fat storage up. And as fat storage goes up, estrogen levels go up.

At the same time, excess estrogen causes an organ called the pancreas to *over*-produce insulin. So you get even *more* fat storage, which then synthesizes *more* estrogen, on and on, back and forth.

It also causes trouble with your thyroid, the hormone that regulates your metabolism - the actual burning of energy (carbs and fats). If you have low levels of thyroid being produced then your body will have a lower *ability* to utilize energy — including the burning of fat and the utilization of carbs so they don't *become* fat.

It does this in a couple of ways. Excess estrogen blocks the receptor sites on cells that thyroid uses to communicate with them. So, even if you have proper levels of thyroid, this makes it harder for the cells to *see* it and for thyroid to *tell* the cells to burn energy for use.[71] Because the thyroid is blocked from passing on its message.

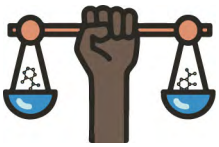
But excess estrogen also causes the liver to produce high levels of something called thyroid binding globulin. This *decreases* the amount of thyroid available to be used.

This results in fatigue, brain fog, hair loss, low libido and fat gain. But, because we now have less thyroid, because of excess estrogen… we get even *more* estrogen.

This is because excess estrogen must be broken down by the liver. But the liver needs thyroid to do this, and so the less thyroid we have the less estrogen is broken down and it *further* builds up in the body.

So more estrogen equals less progesterone and thyroid and more insulin, fat and cortisol, which equals less progesterone and thyroid, which equals more estrogen, which equals, which equals, which equals…

You get the point. It really turns into a vicious circle. This is called estrogen dominance. And it *dominates*.



Enter our savior — *Progesterone*.

Progesterone balances estrogen. It lowers blood sugar levels, lowers insulin production and *lowers* cortisol levels[72].

And while high levels of estrogen can cause so much excess insulin that it alone can start to build insulin *resistance* among the cells after a while, leading to greater levels of insulin and fat storage… progesterone does the opposite, making those cells more insulin-*sensitive*, so they require *less* insulin.

Also, while estrogen lowers thyroid, progesterone raises it. This is because progesterone lowers that thyroid binding globulin that estrogen makes which gobbles up thyroid. So we get *more* thyroid and *increased* fat burning for energy.

And, while high levels of estrogen can make one depressed and anxious more often, have a harder time sleeping and increase inflammation in the body, further raising cortisol... progesterone is calming, *lowers* inflammation and helps one sleep better.

Estrogen also increases water retention by up to five pounds, while progesterone lowers water retention.

All of these things are important and necessary. But do you see how they have to be in *proper balance* and also how much *each one affects every other one?*

So let's look at what raises and lowers these hormones.

First is obviously sugar, either high levels of sugar or processed sugar. This raises insulin and converts progesterone to cortisol, which then raises estrogen levels.

So we have to keep at least moderate carbohydrate levels and stay away from the processed carbs. We also have to lose the extra fat we already have because it increases estrogen production which again increases fat.

Then there's stress. While cortisol raises stress levels, being stressed raises cortisol levels. Obviously life happens, but make sure to get enough sleep and some kind of time to unwind at the end of the day. Maybe read a book (not the news) and do it with an *actual* book. Blue light from our phones and laptops stimulates cortisol release too and can keep you up, making *more* cortisol.

As covered above under the section on testosterone, we also have magnesium and fiber being very important. Fiber helps remove excess estrogen and stabilizes blood sugar levels. And magnesium allows the body to absorb calcium and regulates the pituitary gland, a gland which in turn regulates hormone levels. Magnesium is also very calming, helping to lower cortisol levels before sleep and most people are deficient in it as it's actually *processed* out of a majority of our foods these days.

Vitamin B6 also helps reduce estrogen levels in the blood.

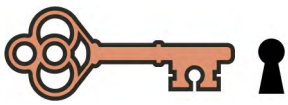
And, as thyroid is made from tyrosine, an amino acid, and *iodine*, then as long as we're getting our iodine and PerfectAmino in, our body is more able to produce thyroid, helping all of this.

Lastly there are chemicals. And those are messing us up *big* time.

HOW TOXINS MESS UP YOUR HORMONES

We know that hormones are messenger chemicals. They pass on messages.

They do this through tiny points on each cell called hormone receptors. These receptors are kind of like a key hole, with the hormone being the key. And the key and keyhole are very exact.



So when a hormone comes along, the hormone receptor reads its chemical signature and knows what the hormone is and lets it in. Then the hormone delivers its message.

Great, easy-peasy.

Except there are also imposters — chemical con-artists, if you will. These are chemicals that *mimic* the chemical composition of a specific hormone. And they're environmental toxins, every one.

You see, these chemicals can be similar enough in composition to *real* hormones that they're allowed to enter the hormone receptor and fool the cell into *thinking* it's received a hormonal message when it actually didn't. And the cell *will* act on this incorrect message.

Or, they can not be *quite* the right chemical composition, but close enough that they get into that keyhole and then get stuck, jamming it. So, while the cell doesn't think it's received a message, the receptor is now blocked so that an *actual* hormone can't get in there to deliver its very real and *necessary* message.

And of course some toxins are so bad that they can damage the hormone receptor so that it can't receive or relay a hormonal message even if it's *not* blocked.

Soy, marijuana, and BPAs (chemicals from plastics like water bottles) are great estrogen imposters. They can make a cell think it's received an estrogen-like message and take the action it would take in that case — *which will always include building fat and raising insulin levels, for men and women*.

So we see men who use a lot of soy protein when working out, or drinking only from plastic water bottles, begin to grow breasts. This is an estrogen activity.

Or we see women becoming estrogen dominant in part from these chemicals. These estrogen imposters are called xenoestrogens, as in *fake* estrogens.

Good thing soy isn't in most packaged foods, right? (Just kidding, it's in almost all of them.)

We also have PFAS (so-called "forever chemicals" because they stay in our body and build up) and glyphosate, a weed killer used on GMO crops. Each of these wreak havoc on our hormones, and there are many more.

In fact, as of just 2009 there were over 60,000 chemicals used in the US, most of

which get into our water supply — and only 91 of them were regulated by the Safe Drinking Water Act.

Now, I'm not saying that all 60,000 of them will harm your body. I wouldn't know because over 90% of them have never been tested as to what their affect on our body is. But I know we didn't have any of them 60 or 70 years ago.

So I highly recommend getting a good water filter, preferably a reverse-osmosis filter, for your drinking water. These things may not cause major problems when you get them now and then. But over the years they do build up. And then they do cause real problems.

THE FATS THAT MAKE YOU GAIN OR LOSE, WELL... FAT

If there's anywhere that calorie counting really messes us up it's in the fat department. We can't say 1 gram of fat is 9 calories, have such and such amount, and leave it at that.

We're trying to lose fat and gain muscle, and different types of fat help or hinder both of those goals. This is because there are many *types* of fat, both that you eat and that your body creates. And different fats are used for different actions in your body[73].

Some are used for energy. Some raise cortisol levels and some lower them. Some can raise or lower blood pressure, make your cells more or less able to take in and use nutrients, and allow or prevent hormones from being able to give directions. Or they can make a cell flop over and die.

This has to do with the type of fat and how it was prepared, as well as the balance of it to other fat types.

So just noting down "fat" on a macro sheet and then consuming any kind is just too vast of a generalization and will lead to greatly varied results.

As we know from earlier, when your body has an excess of sugar it attaches the sugar to 3 fatty acids and makes a type of fat called a triglyceride. This is then stored in fat cells, cells specifically meant to keep this for later use.

Then there are the cells in your organs and muscle. About 50% of each cell is made from fat and this is necessary to both hold the cells form so it doesn't fall apart, while still staying squishy, but also to allow nutrients in and waste out and to allow hormones to communicate with the cell.

If this is messed up then we don't get nutrients in, hormones can't give instructions, and waste can't get out, slowly building up until the cell dies.

This is all fat that the body uses to do this. So let's break this down.

SATURATED & UNSATURATED FATS

Saturated fats are basically fats that are *solid* at room temperature. This is butter, lard, cocoa butter or coconut oil.

Unsaturated fats are *liquid* at room temperature: olive oil, avocado oil, sunflower oil, etc.

This is based on their molecular *form*. Any fat is just a long chain of specific atoms, mainly carbon atoms and hydrogen atoms, or at least that's what's important for what I'm going over. And different fats have different amounts of these.

But the difference between saturated and unsaturated is that saturated fats have hydrogen atoms up and down their lengths, while unsaturated fats are *missing* one or more of these.

This missing hydrogen atom makes a kink or bend in the chain where it's missing.

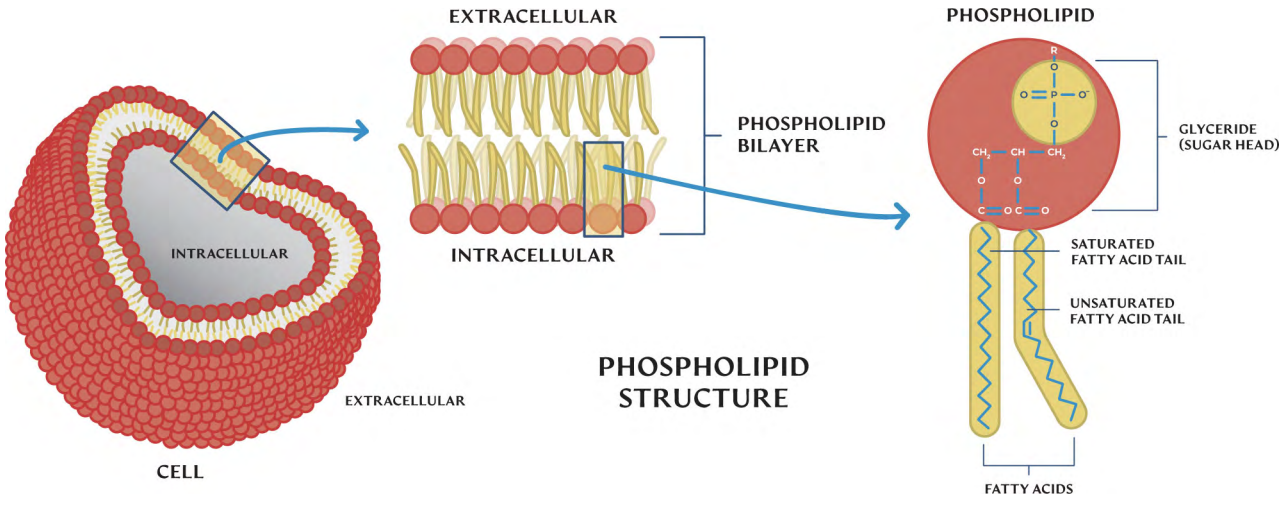
This makes it harder for unsaturated fats to stick together and so they're liquid, not solid. Saturated fats have no missing hydrogen atoms and so they remain straight. But this is key to how they operate in your cells.

You see, these two types of fats form the membrane around your cells. This membrane is made, mainly, of a layer of fatty acids called phospholipids. Unlike triglycerides, which have three tails, phospholipids have a sugar head and *two* fatty acid tails.

One of these tails is made of saturated fat — any kind — and is stiff so it can hold the structure together.

The other tail is made of any kind of unsaturated fat (the one with a bend in it). This bend makes the cell more flexible and gives it its squishiness.

You can see this in the picture below.



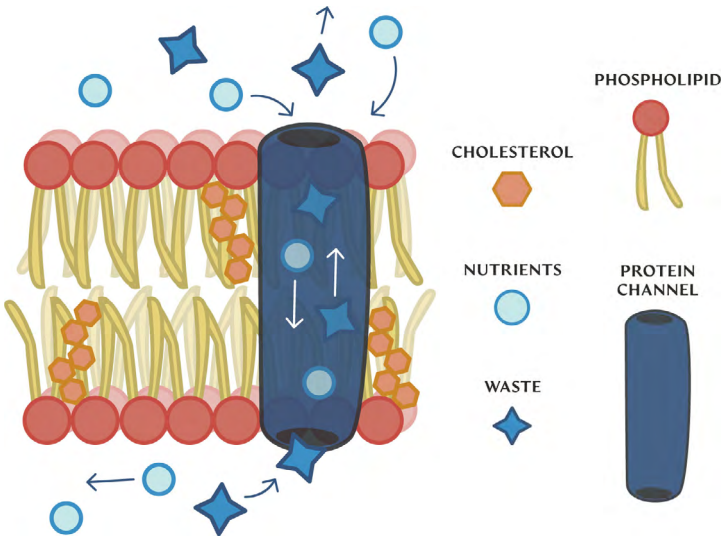
Now, these phospholipids make what's called a bilayer (the membrane on the outside of your cell). It's a bi-layer because it's two layers, one on the outside with tails down and one on the inside, tails up.

But, while the saturated fat tails hold the overall structure together, the unsaturated fat crooked tails are able to wiggle. This wiggle is what allows nutrients, water, oxygen and other fats in and waste out.

Depending on what type of fat makes up the crooked tail, it can have one kink (olive oil), or many kinks, Omega 6 fats (sunflower oil, corn oil) and Omega 3 Fats (chia seed oil, fish oil or algae oil)[74].

The more kinks, the more fluid the cell membrane is and the easier it is for particles to flow in and out (and Omega 3's have the most). The less kinks, the stiffer it is. You need a balance of both for properly working cells.

Now, that may seem like we're getting too technical. It's just a cell, it's so tiny. Yes, but it's what your body is made out of. If you take in the wrong fats or too much of some and less of another, you don't just throw off one cell. You throw off most or all of them to one degree or another. So let's look at how that happens.



First, we see that saturated fats are not only not bad for us, they're *necessary*. They make up nearly 25% of each cell and hold it together properly (also, low saturated fat leads to drier, rougher skin, ladies).

Saturated fats have been blamed in the past for raised blood pressure, high LDL "bad" cholesterol levels and heart disease. This led to a nation-wide reduction in saturated fat intake and raised carbohydrate intake over the last 50 years or so[75].

The average consumption of butter (saturated fat) is about 4 lbs per person, per year in the US now. But in the early 1900's it was about 14 lbs per person, and heart disease was nowhere near the problem it is now.

In fact, more recent studies have shown that most saturated fats actually *help* to reduce the "harmful" LDL cholesterol and raise "good" HDL cholesterol (I put harmful and good in quotes as actually each type of cholesterol is necessary to survival, they just have to be in balance)[76].

So whether you like butter or not, saturated fats are not your enemy. The real cause of the rise in heart disease is related to high carbohydrate intake leading to high

levels of triglycerides in the blood. These stick to the sides of our blood vessels, narrowing them, as we covered earlier, and also contribute to rises in LDL cholesterol. (Also, as covered earlier, toxins and high processed sugar levels damage the insides of the blood vessels, create plaque build-up and that narrows the passages as well.)

So we went off healthy foods based on faulty studies of one man in the 50's and switched to diets high in what actually *causes* the problem of high blood pressure and heart disease. The result: the mild problem — at the time — got *much worse*.

TRANS FATS

These are unsaturated fats, liquid at room temperature. But one thing about unsaturated fats is their shelf life — it's not long.

Saturated fats can exist for over two years in fine condition, but unsaturated fats, depending on how many kinks they have, can only exist on average for about 6 to 9 months before they go rancid, in which case they're unusable by the body.

That doesn't work for companies who want packaged food with a shelf life of many years. So they took these unsaturated fats that were missing *hydrogen* atoms and added extra hydrogen atoms to them — "*hydrogen*ated oils" — that *artificially* made them solid at room temperature.

But now we've made something very different than what we originally had — *and it's deadly for our cells*[77].

See, these are unsaturated fats that have been artificially made into saturated fats. And the body sees them *both* ways — as saturated *and* unsaturated.

So these trans fats can replace either or both tails on the phospholipids. But they're all solid. So no wiggle.

So when these are in our diet (and just 2 grams per day are quite harmful to us), we now have a cell membrane where many of the phosophilipds have two solid tails, not one solid and one wiggly.

This makes it less squishy. The unsaturated tail isn't wiggling because it's solid, so nutrients can't come in and waste can't leave.

When we get too much of this in our cells they're not able to function. They can't get their food or water or oxygen in.

As hormone receptors are on the cells, which the hormones use to pass on messages, these get impaired as the trans fats mess up the receptor sites. So our hormones can't get their messages through.

And waste is building up inside because it can't get it out. The cell is constipated. Too much of this and it dies or goes cancerous.

We *don't* want these.

Now, trans fats have been banned in the US as of 2018, with the full implementation of the ban to hit in 2021.

Hooray!

Except this ban is actually only on levels of 1/2 a gram or more per serving of food. If it's less than half a gram they can tell you that it's zero[78].

This is one reason these foods have such small serving sizes.

I brought up Doritos earlier. How many people eat half or even a full bag of these when you get them, or any bag of chips?

Well, there are *16 servings* in a bag of Doritos. Each serving is 12 chips. So as long as there is less than 1/2 a gram per 12 chips they can say it's zero. That can be just .49 grams per serving.

But who eats just twelve? Has anybody ever? No. Not in the entire history of the universe. But eat 50 of these chips and you might have 2 grams of saturated fats now. Eat the rest of the bag and we're potentially looking at 6 or 7 grams of trans fats. This is NOT good for you.

These trans fats raise "bad cholesterol" levels more than almost anything else.

Now, obviously I don't *know* that they're still in that bag — the bag says zero grams per serving. It doesn't have to say how many grams per bag.

But if they had them before, and they were just required to reduce them to less than 1/2 a gram per serving, which would be *much* easier to do than changing the whole recipe... well, reduced serving sizes probably makes that pretty easy.

These trans fats also raise inflammation throughout the body in these cells, inside blood cells and in your blood vessels[79]. When this gets to be too much, besides raising cortisol levels, it creates plaque in our arteries.

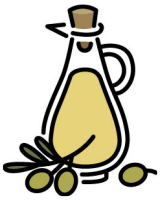
The blood vessels get inflamed and injured by the trans fats and the plaque is a bandage the body puts on it. And it's much harder to get rid of than excess triglycerides, so we just don't want these.

Okay. I'm done with that rant. Lastly...

OMEGA FATS vs. OMEGA FATS — RAISING INFLAMMATION, CORTISOL, & FAT vs LOWERING INFLAMMATION, CORTISOL, & FAT

We see that saturated fats are needed. Your body can even make them from other fats if needed and it can also break them down for energy when in excess. They are no problem at all unless, as with *anything*, they're in *much* too high quantity.

Mono-unsaturated fats (one kink) like olive oil are also very good and can help to lower inflammation and LDL, raise HDL and help us lose fat.



But then we have Omega 6 and 3, two of the poly-unsaturated fats, poly in this case meaning *many* kinks.

These two are necessary for our cells. They have more kinks than any other fat, with Omega 3 having the most, which are needed for proper cell function[80].

But they're used for much more than this, and this is one of the biggest factors in fat-loss and fat-gain.

You see, while both can be used as part of the cell membrane, they also get used *inside* the cell. They're used to make molecules that tell your body to either raise inflammation (say if you've been injured) or lower inflammation.

Omega 6 is turned into pro-inflammatory molecules and Omega 3 is turned into anti. These are *both* needed.

But if our Omega 6 is too high then it produces too much pro-inflammatory molecules, which raises inflammation[81]. And what raises with inflammation? *Cortisol*, which then raises fat storage.

So we don't want that getting too high, right? But wait... if you live and eat the normal American diet then it *is* too high. *Way too high*.

In fact, it's estimated that most people in the US today have a ratio in their cells of about 20 or 40 to 1 of Omega 6 to Omega 3[82].

It should be a ratio of about 1 to 1 or 4 to 1 at the highest of Omega 6 to 3.

But our packaged foods, almost all, contain high levels of corn and soy in them. It's even in high fructose *coooorn* syrup.

And corn and soy are *very* high Omega 6 and *very* low Omega 3. Corn has an Omega 6 to 3 ratio of 46 to 1.

Also, if you consume non-grass fed beef you're getting Omega 6 to 3 ratios of about 17 to 1. That's because, whereas cows fed only grass, their natural diet, have a ratio of 3 or 4 to 1, *non-grass* fed cows are fed corn and soy, so *their* ratios are about 17 to 1.

This is a big problem here. This very high level of Omega 6 is causing inflammation in our cells, raising cortisol levels and *keeping* them higher. This leads to more triglycerides not just in your fat cells, but in your blood vessels, narrowing the passageways and so raising blood pressure and heart disease. It's not meat that raises blood pressure — it's corn and soy fed meat that does[83].

Reversely, Omega 3 is *anti*-inflammatory, helping to *lower* cortisol levels and, when taken in sufficient quantity, we see a *reduction* in fat storage.

So you're working hard to lose fat, but Omega 6 is so thoroughly entrenched in our packaged foods (including the "weight-loss" ones) that your body is constantly

getting the signal to produce cortisol, thus raising fat storage and estrogen levels and lowering testosterone, progesterone, and growth hormone.

You need Omega 6. Just much, much less than what you're getting. It's time to work on getting Omega 3 into the diet.

BACK TO CALORIES AND MACRO COUNTING

Alright, do you see now why I said just counting up how many calories or how much protein, fats and carbs you consumed was too general?

Different types of these macros really do affect different aspects of how your body functions, triggering fat loss or fat gain or muscle loss or gain — *no matter how many calories you consumed*. And every single one affects every other one.

But we didn't go over the actual calories for protein sources, and we need to.

First, counting calories is generally used for cutting (fat loss), where you have an exact target you're trying to reach. Most people don't get too exact when bulking, they just eat.

But for *lean* bulking it also does still need to be thought with to a degree, at least until you know your way around different kinds of foods, have gotten off the processed foods and don't have high cravings anymore. At that point you'll be able to judge for yourself how much of what to eat.

Actually, once you get everything balanced out, you'll be hungry when you actually need to eat and you *won't* feel hungry when you *don't* need to it becomes pretty simple then, and that's what I'd really like to accomplish for you.

But when trying to lose weight or cut to a specific point, calories become important as we need to ensure we're consuming less than our body needs daily to run itself. By doing this we then force our body to "eat" the fat in our fat cells for energy and so we can lose fat.

So if we're off by 50 or 100 calories in our counting it can make a difference.

The problem is we're usually off by *more* than that and don't even know it. This is in part from the fact that many packaged foods contain up to 2½ times the listed calories.

But it also comes from the different protein sources having different *effective* caloric amounts.

Let's look at this. What do I mean by *effective*?

First, we know that a gram of fat is 9 calories, a gram of carbohydrates (sugar) is 4 calories, and a gram of protein is 4 calories.

A calorie, by definition, is: "The energy needed to raise the temperature of 1 kilogram of water through 1 °C and is often used to measure the energy value of foods."
The above is true... But how does this help us achieve what we want?

Let's get practical here for a minute. If 1 gram of carbohydrates is 4 calories, then we now know we can raise the temperature of 1 kilogram of water by 4 degrees celsius.

Great! Because when I'm counting calories that's exactly what I'm trying to do, get some water boiling!

Alright, so in the above, a gram of fat gives 9 calories and carbs and protein give 4. Good. All true and useful — if we're trying to heat water.

But, if you're like me, then you're counting calories for a different reason. To build muscle or lose fat or both.

And if we look at it from *that* view — what we're trying to *accomplish* — then we have to look at these things not from their calorie *potential* but from whether or not they will be *used* for that calorie potential.

If we consume calories from carbohydrates, or many fats, we know they will, in actual fact, be utilized as *energy*, which is what calories are — a measurement of how much *energy* does that food give when broken down. It will either be used directly as energy, or stored as glycogen (stored sugar chains) or fat (future energy). Either way, it's energy.

But when we think of protein are you really expecting all the protein you eat to be burned for energy? Or do you expect it to be used to build muscle, bone, cells, etc?

That's not being used as energy. It has the *potential* to be. It could be *converted* to sugar for energy. But it's not. Hopefully.

So we come to the question: What is effectively *used* as energy or leads to fat storage vs. what is effectively used to *build body structure* in the form of protein and collagen?

To see that, in regards to proteins, we need to look at the exact amino acid ratios that will be used to *build new protein* vs which amino acids will be *converted to sugar*. And this has to do with the amino acids present in any given protein source — each of which are different.

If we look at whey we see 18% of it is amino acids that will be used to build new protein and 82% is excess amino acids that will be converted to sugar - the actual *effective* calories.

So we actually get 3.28 calories per gram of whey — not 4. Not as much as carbs, which are a straight 4. But up there. It's mainly a sugar source.

We get 2.72 calories per gram of protein from meats such as fish, beef and poultry.

And we get 2.08 calories from a gram of protein from whole eggs.

Now, this isn't 2.08 calories per gram of the *egg*. The egg, or any protein source, can also contain carbs and fats. This is 2.08 calories per gram of *protein* from that egg.

We also see that as BCAAs are only 3 of the amino acids they cannot on their own be used to make new protein. So these are, unless mixed with another protein source, wholly converted to glucose. So they actually are 4 calories per gram.

Practically sugar.

PerfectAmino is 99% used to build new protein. So we get .04 calories per gram. Or 4 calories per 10 grams (2 servings). Learn more about PerfectAmino **HERE**.

So if we're counting calories for macros — thinking with calories that will be used as energy and actually determine whether we lose or gain weight, we have to go by the above amounts when it comes to protein — not just a generality of 4 calories per gram.

This is one main reason why people run into trouble with calorie counting. They do exact calculations but the result isn't exact. And the result isn't exact, in part, *because they're unknowingly using the wrong numbers*.

Now, there is plenty of talk about historical numbers of how much protein you need to consume per pound of body weight if you want to build muscle. Which begs the question, which protein was used to determine these?

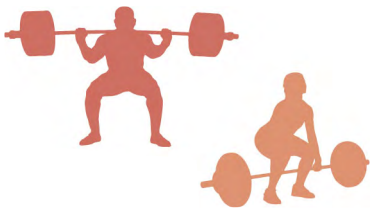
Well, I can't be 100% sure, but from everything I've seen it looks like meats were the protein used to make these earlier calculations.

But honestly, don't worry about these numbers, I simplify it in the protocol below. I just want you to be able to think with this information.

But just before we hit the protocol, let's jump in a time machine for a minute and see what the *original* natural body builders did. Because that sure looks a lot different (and a lot easier) than what's done now.

THE DIET OF GOLDEN AGE BODY BUILDERS

Back before the 50s, before egg protein *powders*, whey *powders*, creatine and BCAAs were first introduced, body builders ate very differently.



They had *no* processed sugars available to them. They just didn't exist.

They had *no* processed fats or non-organic, gmo meats. The cows were grass fed so the meat and milk that came from it was natural. Poultry was fed what it naturally ate. Fish were wild-caught, not stuffed with hormones in artificial nurseries.

And their diet was lower in carbs, anywhere from moderate levels of about 35%, down to 10% or almost none.

Their highest macronutrient was usually protein. Then fats and carbs. And these were all from whole foods, *nothing processed*.

And they did *much* better. They didn't reach the level of muscle of steroid users injecting insulin or HGH, but they did pretty well.

They also didn't often count calories. They just ate.

And, because they weren't getting addicted to processed sugars or consuming trans fats, rancid fats or high levels of Omega 6, they didn't have too many cravings. There was no insulin resistance or leptin resistance to make them hungry when they actually weren't.

They ate plenty of protein and so had normal levels of stomach acid and pepsin with which to fully break down new proteins coming in into amino acids. Because stomach acid and pepsin are *made from* amino acids.

They worked out for two to three hours per day and ate when they were hungry.

They also didn't do much bulking or cutting. If they wanted to gain more they ate more and if they wanted to lean out they ate a little less while continuing their workouts, or did a little cardio to burn it off. But not too much, or at least nowhere near the amounts thought of today as "necessary".

Imagine how they would have done with PerfectAmino?

But in the 50's we started seeing egg protein powders. And these may be *made from* eggs, but they are *not* the same thing. They're processed more. Some of the fats in them have gone rancid and the sugars have been broken down so they hit the system much faster.

Then petroleum fertilizers came out. Up until then whey was looked on as garbage and was sold or used as a fertilizer for crops[84]. But petroleum fertilizers were cheaper, so farmers switched. Looking around, these dairy producers with extra whey on their hands saw it could be used as a protein and so marketed it as that.

But whey, besides being quite low utilization as a protein, is also very processed, including the sugars in it. The sugars become fast-acting. The fats are also processed and come to you in a different chemical form than when they came out of the cow.

Neither of these things, nor BCAAs, steroids, HGH or insulin injections were used by any of the golden age builders. At least as far as I can see.

Their foods were whole foods, no chips, microwave dinners, cookies, or pizza.

Also, it wasn't until around the 50s that we started getting faulty advice to lower fats and raise carbs, starting slowly and gaining traction over the next several decades.

Then processed sugars like high fructose corn syrup in the late 70s and GMO corn and soy starting to be used to feed cows in the 80s, instead of grass, completely changing their whole fatty acid profile from an Omega 6/3 ratio of 3 or 4 to 1 into 17 to 1.

In fact, it wasn't until the 80's and 90's that body builders really started counting macros. Because now they needed to. All the junk was starting to have an effect. Fat started stacking up on their bodies faster and was harder to lose. So cardio became *much* more important.

(Cardio *is* important. But let's do it for the reasons it helps us or because we enjoy it,

not because something else is constantly making us fat so we're *forced* to.)

We've changed our diet so *completely*, and yet so *gradually*, that we didn't even notice it had become this fundamentally different.

So let's take a note from the people who were already doing pretty well eating naturally.

Jack LaLanne even made a point that he never touched processed sugars or packaged foods, only food made from individual pieces that had been cooked.

He was big on protein, then fats, and moderate on carbs. And fish was pretty much the only meat he ate — high in Omega 3 fat.

And, while many people will say, "yes, but such high protein and fat intake is bad for you," well, he lived quite happily and healthily to the age of 96.

Compare that to many bodybuilders in the last few decades dying in their 40s and 50s. They have high processed-carb diets, lots of protein *powders* and they take growth hormone and testosterone to beef up. And many are type 2 diabetic *because* of it.

You don't need that. We don't need these very high levels of carbs, at least not processed carbs.

Sure, if you're doing much longer workouts you need more energy to do them.

But if you're working out and adding adding fat at the same rate as you add muscle... well, that fat isn't coming from nowhere. That's extra carbs that weren't *used* for energy during your workouts. Otherwise it wouldn't be stored as fat.

Either way, we don't need these processed foods and processed sugars. No matter what, they don't help us. They just get in our way. *They* are the reason we need so much more cardio in our routines to keep or get the fat off.

This extreme cardio is a solution for a *created* problem. Let's just stop creating the problem in the first place.

THE DIFFERENCE BETWEEN HUNGER & CRAVINGS:

We're trying to accomplish several things with these protocols, all with the intention of lifting your ability to burn fat and keep it off and build muscle without the excess fat.

To do this, for most people, we'll have to get you over some initial cravings and rebalance hormones. *And that's fine, it will only take the first week or so for most, (a reset week),* and you'll likely be burning fat and building muscle while you get through this.

But this change is *key* and the protocol is designed specifically to help you get through it as easily and swiftly as you can.

You see, there is a difference between cravings and hunger and we need *you* to be able to fully *tell* the difference. If you can't, then by the end of this it's likely you'd gain the weight right back, and neither of us want *that*. So...

Cravings come from:

- Addiction by the cells to fast-acting sugars
- Resistance to Leptin (the hunger hormone that lets your brain know when you've eaten enough) where your brain doesn't see the leptin and so thinks you need more food — *even when you're stuffed*
- Getting less actual nutrition from the food you consume due to proteins and other nutrients your body needs not being fully broken down and so not able to be used, and/or very low nutrition in the food itself
- Small intestinal bacteria that mainly live off fast-acting sugars and put actual pressure on you to eat more of them
- And some degree of insulin resistance where your cells resist letting in sugar while at the same time starving for it and so demanding you eat more, especially fast-acting sugars to give them "fast" energy

These cravings all demand you eat more food than your body actually *needs* which will mainly go to fat stores because, well... your body doesn't actually need it.

But it *thinks* it does.

Hunger, on the other hand, is when your body actually needs more food for energy and the nutrition necessary to burn fat, build muscle, make new cells, etc.

These are two completely different things and we run into most of our trouble when we can't tell the difference, which can be quite hard.

So part of what I tried to do with this program was remove foods that create these

cravings, starving the destructive bacteria and reversing insulin and leptin resistance as much as we can, so that these cravings go away and when you are hungry it's because you *actually* need to eat.

At the same time you'll be providing your body with food that is nutritionally *complete* so your body is getting what it really needs to properly function.

Both of the above points are necessary.

Once we've done that you can easily eat until your body has had enough — *and then have no desire to eat more*. You get to the point where you can start off with three plates of food, completely starving, and partway through suddenly have no more desire to eat. *Because your body is now telling you when it doesn't need anymore*.

After you've been on the program for 1-3 weeks (for some it may be a bit longer), these cravings should be mostly or completely gone and any hunger you experience is real. This is a necessary process to ensure you *keep off* the fat that you lose. (But for most, the worst cravings last about 5-7 days).

Actually, with over 75% of the people in the beta trials we were a bit shocked to find that near the end of the Fat Loss stage they were no longer hungry.

They were getting enough food, even with the reduced calories, while at the same time having more energy and building muscle. But the *cravings* were gone or significantly reduced. We even saw lowered blood pressure, better, more even-keeled moods, and improved sleep in just a week for some.

But the first week is a *reset week* and that is our main concern during that week.

For those going onto Lean Bulk it may be shorter, and for those on Fat Loss, depending on how much you have to lose, it may be a bit longer (more fat on the body likely means greater insulin and leptin resistance). So during this first week we may see fat loss and/or muscle gain for many, but what we're going for is the *reset*. This reset will then allow for better energy levels and mood, as well as more and better fat loss and muscle building in the last 3 weeks. And don't worry, there will be plenty of that.

But we need to be able to tell the difference between cravings and hunger and fix what causes the cravings.

Then, if you're on the Lean Bulk or transitioning onto the Lean Bulk from Fat Loss, pushing yourself hard in the gym and going about your day, and you get hungry — you know it's because you actually *need* to eat more. And when you do, your body uses it. It doesn't just store it as fat.

This is because as your strength increases your muscle is increasing. This then requires more food to a) power you through your workouts and grow new muscle while b) maintaining the muscle you now have and keep adding to it.

If you didn't eat more when you were hungry at this point it would actually set you

back. Then, if you're still hungry — *eat even more*. Just follow the general percentages of macros provided.

The end result of this isn't a strict macro amount that you must follow for the rest of your life, but an "in-tune-ness" with your body so you know when and what to eat.

You will then just keep gaining muscle without the excess fat.

Alright, let's move onto...

THE DIET — DUN, DUN, DUN, DUNNNNNNN...

So we know we have to cut out processed sugars, packaged foods, low-utilization proteins and high Omega 6 fats. Not just because of how many calories they have, but because of what they do to our hormones, digestion, cell structure, intestinal bacteria, and blood flow, which makes it harder to lose fat and gain and keep muscle.

So no processed sugars, no protein powders, and no processed or packaged foods. They're killing you. I want you to hold your great grandkids in your arms, okay?

We need real foods and they need to be organic. We need real fruits, real veggies and real meats — organic and grass-fed.

What do I mean by *real*?

Right now, a majority of crops do not use manure or some other actually natural fertilizer, but instead use *petroleum* fertilizers. Yeah, the same thing we get gas from.

This allows for *cheap* crops, but not healthy ones.

You see, in the soil you have a lot of micro-organisms: bacteria, funguses, creatures, oh my. These either break down the dirt and fertilizer in the soil into nutrition for plants, or they *manufacture* this nutrition for plants.

This occurs much less in petroleum fertilized soil and yet this is what determines how much nutrition is in these crops that you and other animals eat[85].

Then we have pesticides like glyphosate that slowly kill off these helpful creatures so we have less and less of them providing nutrition to the plants, until at last we just have dirt that nothing can grow in, unfortunately happening more and more in the US today (but that's another book)[86, 87].

But what we get is two different things. Organic farming methods give nutritionally-*rich* food and the other method gives nutritionally-*barren* foods, leaving your body under-nourished even when you've eaten plenty.

We need the *real* food and you won't find it packaged in a box, but along the outside of the grocery aisles instead; at the deli and in the produce section.

You will also be consuming more protein than you are used to in this protocol, on top of PerfectAmino, and some (most) may not be up to that at the very beginning.

This is because the amounts of processed sugar, forms of processed foods, and lack of enough protein that most people have had for decades have lowered their ability to fully *digest* proteins.

In the beta trials I recommended that people take the Full Spectrum Digestive Support (digestive enzymes for the stomach) if they had any acid reflux, gas, bloating, heartburn or indigestion. But we then found that almost everyone needed the added enzymes, so now they're a part of the program.

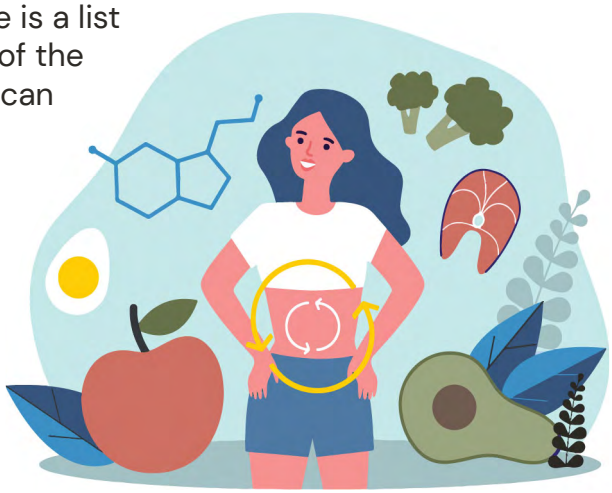
You will be able to consume twice as much protein and get much more nutrition from it with the enzymes. So they're required for real results. If you end up not needing them then give them to a friend or you can just return them with no trouble. But it would be *much* better to have them and find you didn't need them than to need them and have to wait for them to ship to you.

But we need this protein. The fat won't burn just because you're eating less. Your body uses enzymes to burn this fat and the enzymes are made of amino acids from protein. The more fat to burn, the more enzymes are needed. If the body doesn't have enough amino acids to make enough enzymes then instead of burning fat for energy if you eat less, *you'll just have less energy and still have your fat*. The enzymes are what *allow* you to burn it.

We will also need you taking Omega 3. Don't take any Omega 3-6-9 as you don't need more of the 6 or 9. It's 3 that you're deficient in unless you've been living off fish for most of your life. If you are vegan then you will need to get Algae Oil. This is because while oils from chia seed or walnut are high in "Omega 3", it's a different *kind* of Omega 3. The kind we need that lowers cortisol, inflammation, and "bad" LDL cholesterol, and which helps with fat loss, is found mainly in fish, krill, and algae. And to a lesser extent in 100% grass-fed meats.

Next, Cruciferous Vegetables. These have many functions, but one of them is to remove excess estrogen from the body. In fact, their benefit in this regard is so much that *you will not be counting calories from any cruciferous vegetables or leafy greens in your macros*. Have as much as you want, guilt-free.

Alright, I won't go into everything here. There is a list of allowed and disallowed foods at the end of the Guide and you will want to ask many more "can I have this or that" questions in the **group**. The main thing is — keep it *natural*. No processed sugars or packaged foods. Just real foods, clean and organic.



Now, there is a transition period of a few days to a few weeks where your body readjusts to this, both to burning more fat than carbs for energy, but also hormonally and in the microbiome (the

bacteria in your colon), which also affects your hormones. This is that Reset Week I spoke of earlier. Keeping in the high protein and getting healthy fats is what will help you through this the very most. So don't skimp on those. Start getting in your protein in the morning.

It's usually between days 2-5 that we get the most cravings. It can take a few days for the body to switch to burning fat for energy and even longer for some. During this time your energy levels may go down or very high, you may get tired, your mood may be playing on a swing set — *warn your family, warn your friends!*

If you need more sleep for a few days, *get it*.

But don't worry, this is expected.

Your body is going through varying degrees of withdrawal (different for different people), bacterial die-off, hormonal changes across the spectrum, and insulin resistance raising it's ugly head.

But you *will* come out of it if you keep going. And you will be very happy that you did once you see how you look and feel.

And if it seems that the cravings are too much of a problem, let's step back and look at the *real* problem here:

What are you going to wear at the end of this? And how are you going to pay for a whole new wardrobe??

Seriously! It's time to get online and start finding that suit or dress or pair of jeans or new shirts to wear when this is done!

And where do we find enough organic sunscreen for all the time we'll be on the beach this summer?

I mean, let's get our priorities straight here. *These* are the real problems.

Lastly, some will want to do Intermittent Fasting on this. Don't. This protocol pretty much addresses the problems one is trying to solve with IF in the first place and it will be much easier, even on the Fat Loss Protocol, to start getting in your protein early in the day. Maybe you workout first, but don't skip that breakfast. It will be harder for you if you do.

If you *reeeeally* want to then we'll make adjustments for you, but you really will get better results on this program not doing IF. Do it afterwards instead if you still want to.

Alright, into the nitty-gritty we go.

SHOULD I START WITH FAT LOSS OR LEAN BULKING & WHAT'S THE DIFFERENCE?

Now, before you say, *"oh, I already know the answer to that one!"* Let's take a real looksy here.

We have two main goals with these protocols. Some want to build muscle without the excess fat and some want to lose fat and lean out and then maybe or maybe not build up more muscle.

In other fitness programs this is called Bulking and Cutting. But as it's pretty different on this protocol I won't be using those terms. So please don't think with what you knew previously about Bulking & Cutting as most of it doesn't apply here.

Let me explain.

In bulking and cutting we first Bulk, eating a *lot* of food, working out, and building muscle at about the same rate as we build fat. Then, because we built all this fat, we do a Cut where we lower our calories, work out hard, and do a bunch of cardio all to lose that fat.

And we lose some muscle too.

Then we start over with bulking again, then cutting, bulking, cutting, over and over, until you start looking for a ledge... (actually some people really enjoy it and that's fine).

But this protocol is NOT that system. And the Fat Loss Protocol is NOT a Cut and is *NOT* what you do *after* you've been Bulking for a while.

Instead, to lose fat, we do the Fat Loss Protocol — *if this is actually needed*.

And then, to build muscle, we do *Lean Bulking*, where there is no cut needed as you just build muscle without the excess fat. I'll explain Lean Bulking first.

LEAN BULKING:

With this we start off with specific amounts of macros and then over the course of the first week, the reset week, we adjust these up or down on an individual basis based on how we're doing until we've got the right amount dialed in. This is because everyone will be different: different amounts of muscle, different amounts of fat, different hormone levels, etc. So we adjust up or down until we're right on for you.

There are various "systems" to help find this amount, but none of them are exact and some can be quite off. Doing it this way gets it the closest the fastest.

Once we have that dialed in we're at a point where we are consuming roughly enough food to both power us through our workouts and day, while growing and maintaining muscle. But not too much that we also start adding extra fat.

This allows us to keep building muscle without the need of a large Cut later on.

During this first week you also get through any cravings from processed foods and

sugars, after which, if you start getting hungry, it's because you've built more muscle and so need to feed it more. So we up your calories and you keep going, *pushing as hard as you can in the gym*.

If you get hungry again, then we increase your macros again.

Then, if you do gain a little extra fat, we just cut back calories 5% or 10% for a couple of days and it comes right off pretty easily as your hormones are now much more in balance.

Also, during the Lean Bulk you will be losing fat. Muscle burns fat. The more muscle you have, the easier it is to burn fat. So for many, if you don't have too much fat to lose then we'll start you off in Lean Bulking, adjust your macros possibly down a little or possibly not, and this fat will drop off while you build muscle.

If you start in the Fat Loss section, when you should really be on Lean Bulking, it will actually set you back and potentially give you the opposite results of what you want as it will raise cortisol.

Beyond that, even if you don't want to be "muscled up" you still need to build muscle. If your rear hangs a bit lower than you'd like, that's not extra fat, it's lack of muscle to hold it up.

If you want to lose the excess on your thighs, that's more lack of muscle than extra fat.

If you want that V shape from the armpits down to the waist for men, or that smooth hourglass shape for women, that's *some* loss of fat, but mainly the building of muscle to *form* and *hold* the shape.

If your shoulders are rounded or pressed forward, that's lack of muscle in your upper back and deltoids (the rear shoulder muscles) as well as your lower back.

Having the body you want requires both losing the excess fat *and* building the necessary muscle to shape it how you want and *keep the fat off*.

With the Fat Loss Protocol, while we do also intend to build muscle, its purpose is a bit different. You see, it's not just about losing fat, but also about reversing the situations in your body that cause you to *keep the fat* so you *can* lose it, but also so you don't gain it all back afterwards.

THE FAT LOSS PROTOCOL:

First, we're looking to help you lose fat — *not weight*. These are two different things. You can lose weight and not notice any visible difference. And you can lose inches of fat and not see a change in weight. This is partly because, on this program, you will also be building muscle during the fat loss. And more than you think. And also because water weight can fluctuate by as much as 5 pounds in a day. It's just not a good measurement to use to see progress.

Don't worry, if you don't want to look "muscled-up" from this you won't — that's the Lean Bulking Protocol above. With Fat Loss we're looking to lose fat and add the muscle you *need* to both help *burn fat* and *keep it off* as well as *start* forming that shape you want.

Then, to continue shaping up you will move onto Lean Bulking with a very exact transition that is different than if you were to start with Lean Bulking in the first place. You would then do Lean Bulking until you get to where you want to be.

But the Fat Loss Protocol is for when you really need to lose fat. Not vanity fat — *actual fat*.

To do this we need to cut back calories and definitely cut out all processed sugars and packaged foods as these will mainly prevent fat loss. For some they will look at this as too little calories. Well, they never did it with this high of protein levels, real nutrition, no processed foods, and PerfectAmino. You will be getting plenty and you won't go hungry.

This is because it really isn't about the calories you eat, but the *type of food* you eat.

Most people *over*-eat on the processed carbs which are empty calories not *used* for energy, but deposited as fat, and *under*-eat on the protein and fat that their body needs to actually *function* and *build* and *repair* the tens of thousands of bodily systems all required for proper health.

It's the *cravings* that tell you that you need more. Not your body actually needing more.

When we change *this* you have *more* energy — even on this lower calorie amount. And with the added natural proteins and healthy fats and carbs, your problem won't be going hungry, it will be *getting in* all the food.

Seriously. Most people won't actually be able to at the very beginning.

Right now, if you do have fat to lose (not just a little bit), then with processed foods and sugars you are consuming *more* calories than your body needs to fuel itself. If you weren't then you wouldn't have the extra fat. It's as simple as that. That extra fat is nothing more than calories that *weren't* needed.

Also, your extra body fat *is* calories. You can get calories from your plate or you can get them from your belly fat. If you eat enough food in the day to fulfill all of your calorie needs then your body has no reason to tap into the calories stored as fat and you'll never lose it.

One pound of fat has about 3500 calories in it available to be used for energy. So if you need 2000 calories in a day, but need to lose fat, then you need to be eating less than 2000 calories so your body will dip into that fat to burn it. If you don't, *it won't*. But that fat sitting on your belly is a meal for your body, just as food is. It's *many* meals.

So don't worry that you're not getting enough food. Once you're through your cravings you won't be hungry, you'll have more energy than usual, you will be building

muscle, and your body will be sustained partly on your fat stores and partly on food that will give you the nutrition to keep burning those fat stores, which is the only way to get rid of them. And you'll *feel* better than you have in quite a while most likely.

And, of course, you'll also be taking PerfectAmino which greatly supplements extra protein needed for this.

But we also need to lower these calories for another reason.

If you *do* have a good bit of fat on your body, especially if it's hard to lose, then we have hormonal issues that need to be addressed. Key is insulin as there *is*, in this case, insulin resistance going on.

And the only way to reverse that is to get off those processed carbs and lower those calories *enough* that your cells don't feel constantly bombarded against.

Then, with the added protein and fat to improve cellular function and repair, the insulin-resistance reverses and the cells become insulin-*sensitive* again.

So we get less insulin being released as less is *needed*, because the cells are *willing* to take in the sugar now. Cortisol comes down, excess estrogen comes down, growth hormone, thyroid, testosterone and progesterone go up, leptin resistance reverses. And now we're burning that fat and fixing a host of other things at the same time.

And, if we do it this way then at the end of the program you won't go right back to your old ways and gain it all right back. You won't want to. You won't have an *urge* to. The problems that were *causing* you to eat too much will have been reversed, at least mostly (some may take a bit longer).

Also, as a note (and this will be covered later in the Fat Loss Protocol), there will come a point where fat loss slows and you start getting hungry again. But now it's *real* hunger, not cravings. You won't necessarily have lost all the fat you wanted to at this point. But this is our signal to switch to the Lean Bulk to get rid of whatever is remaining, and that will be much more effective at *this* point than continuing with Fat Loss.

In this case you don't move to the Lean Bulk Protocol, you do something else.

We increase your macros by 10% and you go to the gym and push as hard as you can. A day or two or three later you'll be hungry again and we increase another 5%. Then you work out hard and get hungry again and we increase another 5%. We keep doing this for a week or two until it balances out and muscle building really takes off. *And you'll keep losing the fat*.

Then you'll continue to increase now and then, but much less frequently, and you're now in your Lean Bulk and will continue to lean out and lose fat as you're building more muscle, because more muscle burns more fat.

Then, if you gain a little extra fat, just cut back on your macros by 5% or 10% for a few days and it will disappear again.

So let's go over how to choose whether to do Lean Bulking or Fat Loss.

CHOOSING WHETHER TO DO FAT LOSS OR LEAN BULKING:

Here we go:

FOR WOMEN:

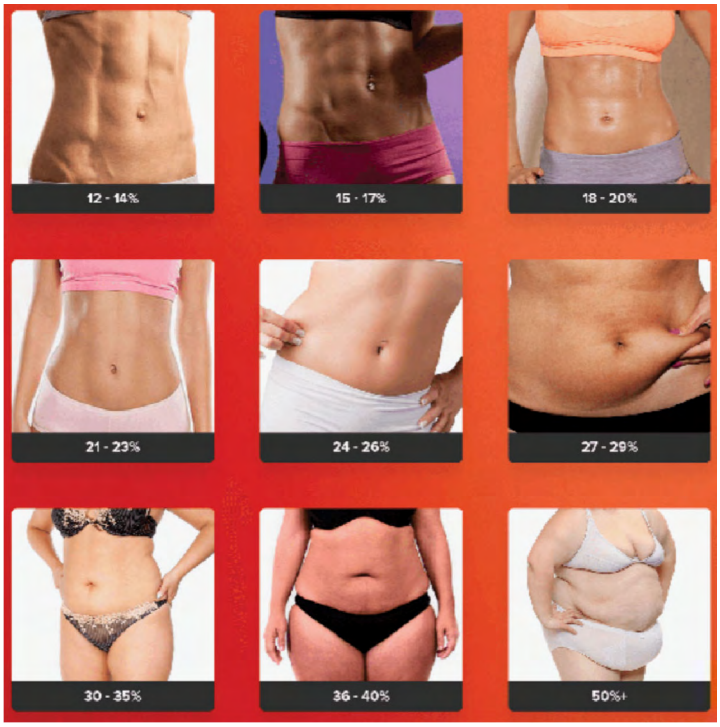
Below are general body fat percentages in healthy ranges, along with images of what each fat percentage looks like (approximately). One thing to note is that in the images from 24% downwards there is also muscle showing. That is not determined by how much body fat you do or don't have, but by how much muscle is actually there to push through that body fat and so show itself.

So these may be a bit misleading, but are the best I have for you for a book.

They also show that it truly is not just fat loss needed for nice proportions, but also muscle building, even if you want to remain slim:

Categories for Women	Percentage
Essential % for survival	10-13%
Athletes	14-20%
Fitness	21-24%
Acceptable for Overall Health	25-31%

If we look at the pictures below, the break off mark is at about 21%–26%. If you are there, unless you very specifically want to (which may not be healthy for you), I would recommend you start with Lean Bulking. And if you are *above* 26% then you should start with Fat Loss (Though in the 27%–29% range this would probably only be for a week or so before you transitioned to Lean Bulking for continued fat loss).



FOR MEN:

Below are general body fat percentages in healthy ranges, along with images of what each fat percentage looks like (approximately). One thing to note is that in the images from 24% downwards there is also muscle showing. That is not determined by how much body fat you do or don't have, but by how much muscle is actually there to push through that body fat and so show itself.

So these may be a little misleading, but are the best I have for you for a *book*.

They also show that it truly is not just fat loss needed for nice proportions, but also muscle building, even if you want to remain slim:

Categories for Men	Percentage
Essential % for survival	2-5%
Athletes	6-13%
Fitness	14-17%
Acceptable for Overall Health	18-24%

For men the break off mark is between about 20%-24%. At that point or below start with Lean Bulking and above that start with Fat Loss, though in the 25%-29% range this may only be for a week or so. Then we would transition to Lean Bulking.

YOUR WORKOUT ROUTINE — WEIGHTLIFTING vs. CARDIO:

DOWNLOAD JUST THIS SECTION

Many of you already have a workout routine, and if it works for you, great! But here are some tips for maximal muscle building, fat loss, and growth hormone release:

First, cardio and strength training. As you know from above, strength training stimulates the release of growth hormone, and cardio, to a degree, stimulates the release of cortisol. At least in higher levels.

As these two hormones have opposing effects, and to a degree cancel each other out, if you do cardio on top of strength training try to keep the two separated by at least 3 hours and take PA before *each*.

So keep cardio and weightlifting separated by at least 3 hours.

Also, you will get *much* better results in fat loss and body shape by doing weightlifting instead of cardio. You can still do cardio but concentrate on weightlifting for *5-6 days* a week with cardio only 2 days max.

If you have a lot of fat to lose, and 5-6 days seems too much, start with 4 and build up to 5.

If you really want to do more cardio because you like your long runs or rides then we'll have to add more carbs and protein on those days and *it will impact your results to a degree*. But only do it because you *want* to, not to lose fat.

Muscle building will help you lose more fat faster and help you *keep* it off as the added muscle will keep fat-burning at a higher level.

On your workouts, whether you do weights or resistance bands, the key is progressive overload of the muscles.

Progressive overload is basically just continually upping the weights as your muscles become able to lift heavier. Every day push to do more — to *overload* the muscles.

At the same time — only lift as heavy as you can *while maintaining proper form*. This is because you're not just doing an exercise for one muscle, but for a muscle *group*. There is no exercise that works only one muscle.

So if one exercise works 9 different muscles, and only 8 of those muscles are able to handle that weight while one isn't quite up to it, you risk not only injuring that one muscle, but also your other muscles will try to compensate for that one, throwing them out and putting you in a position to injure them as well.

So only lift as much as you're able to do while keeping in proper form.

Work with weights where you can only do about 6-10 reps per set. If you can do more than 10 reps in one go — increase weight. Unless you're doing X3, in which case follow their recommendations.

If you're doing resistance bands this could take maybe 15-30 minutes per day. On weights maybe 45-60 minutes. Unless you're already quite muscled I don't

recommend you do more as this will be plenty and giving your body time to rest and recover is just as important for both muscle growth and fat loss.

Half of muscle building is progressive overload with heavy weights, and half is allowing the muscles to recover afterwards, including getting good sleep.

In fact, continuing weight training past this point could put your body into stress mode and release higher cortisol, *lowering* your gains and making it harder to sleep, which will then lower your gains even more. And for most people it's just not necessary.

Also, your ligaments, tendons, and nerves take longer to heal than your muscles. Definitely faster with PerfectAmino than with any other protein, but still, you need those to heal enough after each workout in order to continue working out without risking an injury.

So try to get in 5-6 workout days per week. 4 can be good if you physically can't do anymore, but you will get best results from 5-6.

Then leave day 7 as a rest day, still taking the same amount of PerfectAmino and macros (covered below).

As far as specific lifts, I'll leave that to you. But the key ones that must be included are:

- Bench Press
- Triceps Press
- Overhead Shoulder Press
- Rear Deltoids Raise
- Deadlift
- Bent Over Row
- Barbell Curls
- Front Squats or Split Squats (start with Squats if new, but Split Squats are the very best for abs and *obliques*)

Women, if you want to flatten your tummy, define your thighs, raise your rear, and develop or refine that hourglass shape, then focus more on the Squats, Split Squats and Deadlift. But do also get in your upper body workouts including the Overhead Shoulder Press and Rear Delt Raise which will help raise and pull back your shoulders so they don't slump forward and push out your chest more for posture.

For men, definitely don't forget your squats, and you want those split squats for your obliques (side abs), but you will most likely want to focus more on your upper body. So Deadlift, Bench Press, Overhead Shoulder Press, Rear Delt Raise so your shoulders don't roll forward, Barbell Curls and Triceps Press.

Also, start working on your Pull Up as this will broaden your upper back the most, especially the wide-grip pull up.

Now, there are seventy thousand different variations of these exercises out there, most of which mostly do the same thing. Just make sure you hit each major muscle group: chest, shoulders, back, legs, and arms.

One YouTube channel with very good videos demonstrating proper form for various exercises is **ScottHermanFitness**. He doesn't make over the top claims and knows his stuff. It's a great place to go to ensure your form is correct but also to see specific exercises for specific muscles *you* may want to work on.

These exercises can be done either on separate days with a different muscle group focused on each day, or on alternating push/pull days where on "push" days you do the chest press, triceps press, shoulder press, and squats, and on "pull" days you do back (deadlifts, bent over rows) and biceps.

But there is one lift that is quite important that I don't see done enough: squats, specifically split squats. These are King. Or Queen.

First, squats have been shown to release more growth hormone than any other exercise. They work your legs and your core muscles. And there really is no difference in effectiveness between front and back squats, so up to you which you do, but front squats are easier.

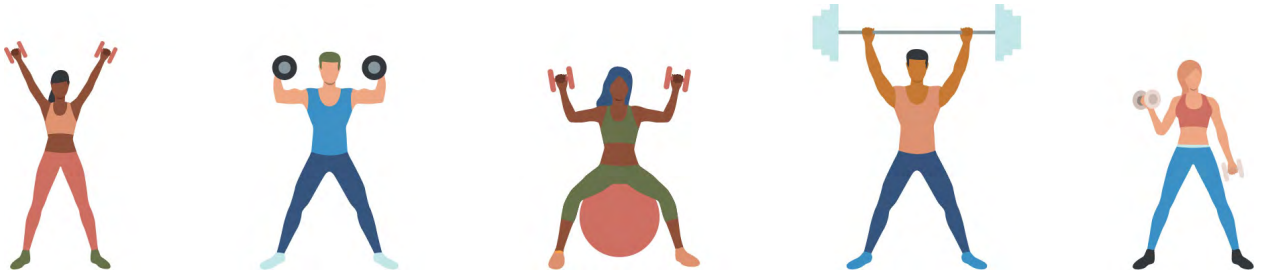
Second, if you do *split* squats, you will build that nice core you want with abs, side abs and more side abs. They can't be beat for that and are actually more effective than crunches or sit-ups for this.

If you're new to squats, then do regular squats for the first few weeks until you've built up enough strength and then move to individual split squats for each leg.

So to recap:

- **Workouts *5-6* days per week using weights you can only do 6-10 reps with max. If you can do more reps then increase the weight. If you physically can't do 5 days then do 4 and work up to 5.**
- **Give yourself at least one rest day and get plenty of sleep for recovery each day.**
- **Only lift as much weight as you can while keeping in proper form to**
- **prevent injury.**
- **Only 2 days of cardio. You will burn more fat by building muscle. If you really want to do more cardio then we'll have to increase carbs about 10% and proteins about 5%.**
- **If you do cardio on the same day you weight train, then separate the two by at least 3 hours.**
- **Keep pushing harder every workout. You can do more than you think.**

So let's see how this is organized.



EXPLAINING THE 30 DAY CHALLENGE & A VERY IMPORTANT NOTE (*VERY IMPORTANT!*):

First, this program was originally designed for use in our Facebook Group where we have a 30 Day Challenge we help you through from start to finish. You can find our main group **HERE** and from there just let us know when you're ready to start and we'll let you in. We keep this group private for the security and comfort of those on the program and only have people actually doing the program in it at any given time.

Maybe we'll expand to another platform at some point, but right now this is what is working best. This is where we're able to *help* you through it, answer any questions, and ensure you're getting the best results.

But we've also tried to organize the protocol so you can do it on your own as well, though make sure to ask us any questions along the way if needed. You can message us for that **HERE**.

It also brings about accountability for both you and us. If you're there posting, we need to answer. And as you see everyone else going through it you will feel obligated to stick with it to get the results you want — *and you will*.

It's also much easier to do when you see, and can chat with, others going through the same things you are. Or see them move through some phase into higher levels of energy, mood, fat loss and muscle building.

ANOTHER THING THAT I CANNOT STRESS ENOUGH:

Let us know if you're running into trouble. We can't help you if you don't. And if we tweak one thing to fix a situation and that doesn't work, *please let us know* so we can find the actual correct thing to fix.

I really can't stress this enough. Don't wait. If something isn't working, or you're running into trouble on something for a couple of days, don't just try to tough it out or not ask because you feel embarrassed. That's *days* lost. Maybe you *will* need to tough it out. But also maybe there is something we can help fix to make it easier. And we sure won't think less of you for asking.

So. Always let us know right away if you're having trouble so we can fix anything then and there. And if it doesn't fix, let us know again… and again, and…

We don't care how many times you ask or what you ask. We just care that we're able to help you. Okay?

Good.

THE MACRO GROUPS:

For both Lean Bulking & Fat Loss you will see several different macro counts to go by. They start with Group One and end with Group Five. Each group actually has the exact same amount of calories. The calories just come from differing amounts of fat and carbs.

Group One is the highest carb/lowest fat and Group Five is the highest fat/lowest carb.

If you can't even think with lowering carbs — start at Group One. If you're losing fat on it, keep going. But... *if you're not losing fat after a week at the very most* — switch to a higher group. There may be some insulin resistance that requires cutting carbs down for a few weeks to get through and that means Group 4 or 5.

Or, if you *prefer* higher fat, then start at a higher group. And if you need any help determining this, just ask. But this is mainly a preference point. During the first week you may even decide to switch groups, and that's fine. If you find you're constantly going over on fat and under on carbs, switch to a higher group or vice-versa.

Okay, those are the main things. From here, if you're starting with Fat Loss then go **HERE** and if you're starting with Lean Bulk then just continue reading.

LEAN BULKING PROTOCOL

DOWNLOAD JUST THIS SECTION

LEAN BULK MACRONUTRIENTS (PROTEIN, CARBOHYDRATES, & FAT):

With the Lean Bulk the starting point is about 14 calories per lb of body weight. So a 150 lb person would get about 2100 calories from this (don't sweat it on this, being off some on the Lean Bulk is just fine. And as said above, we'll be tweaking this to dial in the right amount for *you*).

Now, some will say these are maintenance numbers. That's because they are. We build up from here to dial it in for *you*. Or we lower it if too much.

Next, take two servings of PerfectAmino prior to your workout.

No food late at night unless you couldn't get it in earlier or find that you're starving, in which case, increase macros by 5%. 3 hours before bed take at least one more serving of PerfectAmino.

Your meals should include at least one salad and/or serving of cruciferous vegetables per day. And for this, any dressing should be a vinaigrette — the olive oil is going to help you.

Don't include the salad or veggies in your macro count below — you can have as much leafy greens and cruciferous vegetables as you want. These calories aren't counted.

But don't skimp on the proteins, fats, Omega 3, or PerfectAmino. These are the three things that will make getting through any cravings at the beginning the easiest.

Carbs: We want all carbohydrates to be from natural sources, no processed or packaged foods, and preferably low-glycemic. And definitely no sodas or energy drinks as these not only provide fast-acting sugars, but they also neutralize your stomach acid so you'll have a harder time breaking down proteins for use.

Fats: We want our fats to be healthy fats — no trans fats or refined fats from packaged, processed foods. Saturated fats are great, olive oil is great, avocados, nuts, butter, whole fat meats, fatty fish, chia seeds — but we need to get in the Omega 3's. So that's fish or seafood, fish oil, krill oil, or algae oil.

Proteins: We want our proteins to be Non-GMO and certified organic, if possible. When eating eggs, eat the whole egg, not just the white, or you lower the amino acid utilization rate from 48% to 16%.

As far as any beef, this *must* be 100% grass-fed due to the Omega 6 to 3 ratios. Go for wild-caught fish or seafood. No bacon — sorry, it's too processed.

For vegans, organic tofu and seitan is fine, pea protein is okay, though count every 20 grams of pea protein as 10 grams of protein and 10 grams of carbs.

No whey, collagen, or egg powders. No BCAAs.

Also, vegans will need to take 1 more serving of PerfectAmino daily to ensure they're getting enough amino acids.

PerfectAmino: You will be taking at least 1 serving for every 50 lbs of body weight *plus 1 more*.

Omega 3 Fatty Acids: Take at least one gel cap for every 50 lbs of body weight unless there is fatty seafood each day. These are very important for both fat loss and fat-prevention, as well as lower inflammation levels.

Digestive Enzymes: Start with 1 capsule per meal, but up it to 2 capsules if you're still experiencing digestive issues of any sort. Take *with* the meal, *not before*.

Electrolytes: If you experience any bloating from water retention then take electrolytes, one serving per day. Water retention comes from too high sodium (salt) and the electrolytes balance that out. They are also needed for the protein synthesis channels in your cells, so ensure you take them if dehydrated.

Vitamin D, CoQ10, and B12 are also highly recommended. You can get these in our Complete Multi or on their own, but they're each necessary for both men and women for hormonal balance, energy production and utilization, and protein synthesis.

THE LEAN BULK GROUPS:

DOWNLOAD JUST THIS SECTION

So first, pick from the below groups based on whether you prefer higher or lower carbs to fat. This is strictly a personal preference. Whatever your body weight is multiply it by the numbers given for each macro (carbs, protein, and fat) and this will give you the number of grams of each macro to consume daily.

Once you've picked your group, read on to see how to dial these in over the first week or two.

GROUP ONE:

Calories from low-glycemic carbohydrates 40% = (your body weight) x 1.4
Calories from whole food protein 30% = (your body weight) x 1.05
Calories from healthy fats 30% = (your body weight) x .47

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x 1.4 = 210 grams
Proteins: 150 x 1.05 = 157 grams
Fats: 150 x .47 = 70 grams

PerfectAmino: 1 serving per 50 lbs of body weight + 1 more. Take 2 servings before your workout and at least 1 before bed. If you find yourself tired out after your workout, take another serving as long as it's been at least 2 hours since your last serving.

GROUP TWO:

Calories from low-glycemic carbohydrates 30% = (your body weight) x 1.05
Calories from whole food protein 30% = (your body weight) x 1.05
Calories from healthy fats 40% = (your body weight) x .62

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x 1.05 = 157 grams
Proteins: 150 x 1.05 = 157 grams
Fats: 150 x .62 = 93 grams

PerfectAmino: 1 serving per 50 lbs of body weight + 1 more. Take 2 servings before your workout and at least 1 before bed. If you find yourself tired out after your workout, take another serving as long as it's been at least 2 hours since your last serving.

GROUP THREE:

Calories from low-glycemic carbohydrates 20% = (your body weight) x .7
Calories from whole food protein 30% = (your body weight) x 1.05
Calories from healthy fats 50% = (your body weight) x .77

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .7 = 105 grams
Proteins: 150 x 1.05 = 157 grams
Fats: 150 x .77 = 116 grams

PerfectAmino: 1 serving per 50 lbs of body weight + 1 more. Take 2 servings before your workout and at least 1 before bed. If you find yourself tired out after your workout, take another serving as long as it's been at least 2 hours since your last serving.

GROUP FOUR:

Calories from low-glycemic carbohydrates 10% = (your body weight) x .35
Calories from whole food protein 30% = (your body weight) x 1.05
Calories from healthy fats 60% = (your body weight) x .92

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .35 = 53 grams
Proteins: 150 x 1.05 = 157 grams
Fats: 150 x .92 = 138 grams

PerfectAmino: 1 serving per 50 lbs of body weight + 1 more. Take 2 servings before your workout and at least 1 before bed. If you find yourself tired out after your workout, take another serving as long as it's been at least 2 hours since your last serving.

DIALING IN YOUR LEAN BULK MACROS:

DOWNLOAD JUST THIS SECTION

Okay, so you've picked your group and calculated your macros. This is how you run your first week (reset week) and subsequent weeks.

STEP ONE:

During the first week, work to get as close to these numbers as you can without stuffing yourself. You should not feel uncomfortably full at all. If you're eating, and you feel you've had enough, end off and make note of what you ended up consuming vs the starting numbers, or at least an approximation.

Maybe it's right on, maybe it's 5% less, maybe it's 30% less, or maybe you were very hungry and it's 50% more. As everyone has a different ratio of muscle to fat, digestive ability, hormone levels, and daily workout intensity the result here will be different for everyone and will take some trial and error.

Whatever it is, take note and lower the total macros by that amount. So if you estimate it's 5% less, then take the grams of each macro and multiply them by 0.95 for your new macros. For 10% less multiply by 0.90, for 15% less multiply by 0.85, etc. (If you need to increase macros due to hunger go to **Step Six** below.)

This may fluctuate some, but just work to dial it in until you're eating enough that you aren't hungry at all, but no more. But also don't skimp. You want as much as your body needs. And *don't* skimp on the protein.

STEP TWO:

By the end of the first week we should have accomplished two things.

First, resetting your hormones to a degree and lowering cravings so you can tell more easily when you're actually hungry.

And second, dialing in your macros. Maybe we're not quite there, but as cravings continue to decrease and real hunger is easier to tell, just keep adjusting.

Next, during this time you should be *pushing as hard as you can* in the gym with heavy weights where you can only do approximately 6-10 reps before failure.

This will require nutrition to power you through your workouts and your day, build muscle, and maintain the muscle you've now built.

During this hunger may increase. If it does, just raise your macros by 5% by taking your current grams of each individual macro and multiplying them by 1.05.

One rule of the Lean Bulk is that you should never be hungry. So, as you get over any cravings and hormonal rebalancing in the first week or so, any hunger you feel is real and you need to raise macros.

STEP THREE:

Continue in the gym, pushing to do as much as you can each day while maintaining proper form during each workout. As your muscle builds it will require more food. So if you get hungry, increase macros by another 5% by mutiplying by 1.05.

Keep doing this, ending off eating when you're no longer hungry, but increasing macros when you are.

STEP FOUR:

If you start to gain some extra fat, just cut back on each macro by 5% for a few days and it should come right off. Do this by multiplying each macro by 0.95. Once it's off, continue on according to you hunger levels, adding back in by 5% as needed according to hunger.

STEP FIVE (I WANT TO LOSE EVEN MORE FAT):

If you're pretty lean, but want to lose even more fat to be very toned, do this:

First, look for any high sodium foods or condiments you may be using. Too much salt/sodium causes extra water retention. If you find this then either eliminate it, lower it, or start taking electrolytes to balance it out. (Salt for holding water in, Potassium for letting water out. The two should be in good balance).

Also, ensure you're consuming plenty of leafy greens and cruciferous vegetables for fiber so there is nothing "backed-up".

But if that doesn't work, then do this: make sure your macros are dialed in to about the level of hunger everyday where your hunger levels are fully satisfied. Next, reduce both carbs and fat by 10% by multiplying the grams of each by 0.9. But leave protein where it is. Do this for a couple of days to a week max and you should lean out to where you want.

If that's too much of a drop then lower carbs and fat by 5% each by multiplying each by 0.95, but leaving *protein* alone.

You can also switch things up. We don't want people "Fat-Adapted" or "Carbs-only". We want your body in a position where it can easily switch between burning carbs for energy *or* fat.

For those who have been on Keto a long time, and fat-loss slowed, they will actually get further results by lowering fats, and raising carbs and protein. So if you seem to be at an impasse, even with the above, try switching from high fat to higher carb or

STEP SIX: (WHAT IF YOU NEED TO START OF WITH HIGHER MACROS?)

If on the other hand you start off and you're going hungry — not cravings for sugar, but actual hunger — or maybe this is less protein than you already consume, do this:

Increase your macros by at least 5% by multiplying the grams of each one by 1.05. If you know you need more than that then add 10% or 15% or more on. For 10% multiply by 1.10, for 15% multiply by 1.15, etc. Do this for each individual macro.

Keep increasing until you're no longer hungry, the whole time pushing hard in the gym while keeping proper form on each of your workouts. And if you get hungry again, increase another 5%.

STEP SEVEN: (WHAT ABOUT CARDIO?)

For this program it's better to do no more than 2 days of cardio per week, however there are many Triathletes, runners and bikers who also want to take part.

So, if you do cardio in excess of 2 days a week you will also need more carbs for energy as well as more protein for added recovery. This is something you will need to judge as I cannot say exactly how much you will need for every mile or hour of cardio.

But think with this: **raise natural carbs for energy** and **natural protein for recovery.** And if you can, raise these at approximately a 2:1 ratio of carbs to protein. So if you raised carbs by 10% then raise protein by 5%. And do this based on hunger.

Make sure to get in both carbs and protein before and after the race. But as far as *when* for each, work to have higher carbs *before the race* for energy, and higher protein *after the race* for recovery.

STEP EIGHT (KNOWING YOURSELF):

As you dial this in you will become more in tune with your body. Some days you will want to eat less and some days you'll be hungrier and want to eat more based on workouts — *listen to this*. Your cravings are gone now so this is actual need of food for energy and recovery.

You will even start to notice if you need **more carbs or fat for energy** or **more protein for repair and building**, and start to jockey these daily.

But now we're off to the races and you are in control.

Lastly, if you ever need any help and are not doing this inside our group with help from us, just message us here for help: **m.me/PerfectAminoFatLossAndLeanBulkProgram**

Onto the Fat Loss protocol...

THE FAT LOSS PROTOCOL:

So we need to lose fat. But if you've got a good bit then there are also some hormonal imbalances and insulin/leptin resistance or we wouldn't be where we are. It may be small or large, but it's there and we need to reverse it both to help you lose the fat, but also to help you *keep it off*. Note: the more fat you have and the older you are, the longer it may take to see results. That's just reality, but keep with it and you'll make it.

There will also be cravings to get through from this, but the high protein and fat content of your diet, along with PerfectAmino, will ease those greatly and most will be through them in a matter of a week or two.

We also need to put on some muscle at the same time as this not only changes body shape to a degree, which is part of the lean, toned look you want, but also is daily added fat-burning power.

Some will say these calories are too low. But they're necessary to reduce the insulin-resistance. It just won't happen any other way. But this diet does do it faster than most. Also, many weight loss clinics give even lower calories than this and there are many people who do 1-, 3-, or 7-day fasts just fine. So lower calories for a week or even a month will be fine.

But honestly your biggest problem will actually be *getting it all in*. You won't believe me when you see the numbers, but it's true. If you can get it all in on the first day, then either you're on the wrong protocol and should probably be on Lean Bulking, or I'll buy you lunch.

You see, most people aren't accustomed to this much *whole-food* protein these days, but empty, nutritionally-barren protein sources instead. It will satiate much more and you most likely won't make it to your full calorie amount needed every day.

This is also where the digestive enzymes will really come in handy as they help to fully break down the proteins so you can consume more and get much more from it.

So here we go.

Take two servings of PerfectAmino prior to your workout and push hard in your workout.

No food after dinner — at least 4 hours before bed. 3 hours before bed take at least one more serving of PerfectAmino.

Your meals should include at least one salad and/or serving of cruciferous vegetables per day. And for this, any dressing should be a vinaigrette — the olive oil is going to help you.

Don't include the leafy greens or cruciferous veggies in your macro count below — you can have as much *leafy greens* and *cruciferous vegetables* as you want, guilt free.

If you get incredibly starving and absolutely have to have something, keep an apple nearby and have that.

But don't skimp on the proteins, fats, or PerfectAmino. These are the three things that will make getting through your cravings the easiest.

In fact, start getting in your protein in the morning — seriously — it will make this process very easy.

FAT LOSS MACRONUTRIENTS (PROTEIN, CARBOHYDRATES, & FAT):

DOWNLOAD JUST THIS SECTION

For this fat loss program we want our calories to be at about 8 calories consumed daily for every 1 lb of body weight.

You just take your current body weight and multiply that by 8 and you'll have your total calorie intake.

So a 150 lb person would be 150 lbs x 8 calories = 1200 calories.

As I said, this may seem too low to some and too high for others. If too low, my condolences, but you *will* be fine. If it seems too high, tell us in the **group** so we can help adjust things for you.

From this we get our macros — our total proteins, fats and carbohydrates to consume, *not including PerfectAmino:*

1 gram of fat = 9 calories
1 gram of Carbohydrate = 4 calories
1 gram of Proteins = 4 calories (This is being used to keep things simple in case you use a macro calculator, but the real numbers have been taken into consideration in your protein amounts).

Carbs: We want all carbohydrates to be from natural sources, no processed or packaged foods, and low-glycemic, and definitely no canned sodas or energy drinks as these not only provide fast-acting sugars, they also neutralize stomach acid which we need to digest the proteins.

Fats: We want our fats to be healthy fats — no trans fats or refined fats from packaged, processed foods. Saturated fats are great, olive oil is great, avocados, nuts, butter, whole fat meats, fatty fish, chia seeds — but we need to get in the Omega 3's. So that's fish or seafood, fish oil, krill oil, or algae oil.

Proteins: We want our proteins to be Non-GMO and certified organic if possible. When eating eggs, eat the whole egg, not just the white or you lower the amino acid utilization rate from 48% to 16%.

As far as any beef, this must be 100% grass-fed due to the Omega 6 to 3 ratios. Go for wild-caught fish or seafood. No bacon — sorry, it's too processed.

For vegans, organic tofu and seitan is fine, pea protein is okay, though count every 20 grams of pea protein as 10 grams of protein and 10 grams of carbs.

No whey, collagen or egg powders. No BCAAs. These will set you back. Take them after the 30 days if you want, but please not during it.

Also, vegans will need to take 1 more serving of PA daily to ensure they're getting enough amino acids.

PerfectAmino: You will be taking at least 1 serving for every 50 lbs of body weight.

Omega 3 Fatty Acids: Take at least one gel cap for every 50 lbs of body weight unless there is fatty seafood each day.

Digestive Enzymes: Start with 1 capsule per meal, but up it to 2 capsules if you're still experiencing digestive issues of any sort. Take it with the meal, not before.

If you experience any bloating from water retention, take electrolytes, one serving per day. Water retention comes from too high sodium (salt) and the electrolytes balance that out. They are also needed for the protein synthesis channels in your cells, so ensure you take them if dehydrated.

Vitamin D, CoQ10, and B12 are also highly recommended. You can find these in our Complete Multi or on their own, but they're each necessary for both men and women for hormonal balance, energy production and utilization, and protein synthesis.

THE FAT LOSS GROUPS:

So first, pick from the below groups based on whether you prefer higher or lower carbs to fat. This is strictly a personal preference.

Whatever your body weight is just multiply it by the numbers given for each macro (carbs, protein, and fat) and this will give you the number of grams of each macro to consume daily.

Once you've picked your group, read on to see how to run this over the next week or two.

Note: If after a week you see no fat loss, move to a higher group.

GROUP ONE:

Calories from low-glycemic carbohydrates 30% = (your body weight) x .6
Calories from whole food protein 45% = (your body weight) x .9
Calories from healthy fats 25% = (your body weight) x .22

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x 0.6 = 90 grams
Proteins: 150 x .9 = 135 grams
Fats: 150 x 0.22 = 33 grams

PerfectAmino: 1 serving per 50 lbs of body weight, plus 1 more serving. Take 2 servings before your workout and at least 1 before bed. If you find yourself starving after your workout or after dinner, take another serving. Your body is going to be going through changes and may need it.

GROUP TWO:

Calories from low-glycemic carbohydrates 25% = (your body weight) x .5
Calories from whole food protein 45% = (your body weight) x .9
Calories from healthy fats 30% = (your body weight) x .27

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .5 = 75 grams
Proteins: 150 x .9 = 135 grams
Fats: 150 x .27 = 40 grams

PerfectAmino: 1 serving per 50 lbs of body weight, plus 1 more serving. Take 2 servings before your workout and at least 1 before bed. If you find yourself starving after your workout or after dinner, take another serving. Your body is going to be going through changes and may need it.

GROUP THREE:

Calories from low-glycemic carbohydrates 20% = (your body weight) x .4
Calories from whole food protein 45% = (your body weight) x .9
Calories from healthy fats 35% = (your body weight) x .32

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .4 = 60 grams
Proteins: 150 x .9 = 135 grams
Fats: 150 x .32 = 47 grams

PerfectAmino: 1 serving per 50 lbs of body weight, plus 1 more serving. Take 2 servings before your workout and at least 1 before bed. If you find yourself starving after your workout or after dinner, take another serving. Your body is going to be going through changes and may need it.

GROUP FOUR:

Calories from low-glycemic carbohydrates 15% = (your body weight) x .3
Calories from whole food protein 45% = (your body weight) x .9
Calories from healthy fats 40% = (your body weight) x .37

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .3 = 45 grams
Proteins: 150 x .9 = 135 grams
Fats: 150 x .37 = 55 grams

PerfectAmino: 1 serving per 50 lbs of body weight, plus 1 more serving. Take 2 servings before your workout and at least 1 before bed. If you find yourself starving after your workout or after dinner, take another serving. Your body is going to be going through changes and may need it.

GROUP FIVE:

Calories from low-glycemic carbohydrates 10% = (your body weight) x .2
Calories from whole food protein 45% = (your body weight) x .9
Calories from healthy fats 45% = (your body weight) x .42

So if you weigh 150 lbs you would have:

Carbohydrates: 150 x .2 = 30 grams
Proteins: 150 x .9 = 135 grams
Fats: 150 x .42 = 63 grams

PerfectAmino: 1 serving per 50 lbs of body weight, plus 1 more serving. Take 2 servings before your workout and at least 1 before bed. If you find yourself starving after your workout or after dinner, take another serving. Your body is going to be going through changes and may need it.

RUNNING YOURSELF ON THE FAT LOSS PROTOCOL:

Okay, so you've picked your group. Now here's how to run it:

STEP ONE (MACROS):

Work to get as close to your macros as you can each day without stuffing yourself. If you can't get them all in, fine. Just work to keep the ratios at about the same amount and *prioritize* proteins. These ratios are important.

In fact, start with proteins in the morning. It will make it easier to get it all in for the day and will set you up for less cravings during the first week. This is actually very important. It is a combination of starving the cells of processed sugar while at the same time giving them high amounts of protein that reverses insulin and leptin resistance the fastest.

STEP TWO:

To help with this we have the **Digestive Enzymes**. Especially if you have a good bit of fat to lose you will need these. They will ensure your proteins are fully broken down so that a) your body can actually use them and b) they do not raise inflammation and cortisol.

Now, some digestive enzymes out there have many different enzymes in them. But the two things that must be present for the protein breakdown are HCl (Hydrochloric Acid) and Pepsin.

If you have your own enzymes and they contain these two ingredients, that's fine. But if they don't then get ours or find another that has these two in it. The other enzymes often added in other products are for use in the small intestine, not the stomach, and will be virtually useless without the HCl and Pepsin.

So do get digestive enzymes with these two ingredients as it will make things much easier for you. Take 1-2 with each meal — not before the meal, but with it.

Also, do not take anything for heartburn during this protocol. If you experience heartburn or acid reflux this is from too little stomach acid, not too much. Taking Tums or some other ant-acid will lower acid levels causing even less protein breakdown and higher cortisol.

And if you're currently taking an acid blocker then let us know before starting as to get real results we will have to help you off of that first and get your digestive tract functioning properly or you will have a very hard time on this program.

STEP THREE (CHEATING):

Over the first week you will likely experience cravings, even while feeling very full. For some this could be a lot, but if you stick with it you will be fine. If they get very bad, take an extra serving of PerfectAmino and have an apple on hand to eat.

But remember, while you may fall down and cheat, *one cheat meal will set you back a few days*. This is because at the beginning our goal isn't fat loss, but hormone reversal that then allows for fat loss and higher energy levels.

So if you do cheat, fine, just get back on the horse and keep going and you'll still make it. But ensure your expectations are real if you had cheats and know that to get the full results we will need at least a few weeks without any cheats at which point the cravings will be gone or almost gone.

This is part discipline. And if you're ready to break, just post in the group asking for for a shoulder to cry on to get you through, there will be plenty there for you and we'll be there too to cheer you on.

STEP FOUR (WATCHING THE SCALE):

Don't.

Seriously, it really won't tell you anything useful. Weight can be from fat levels, muscle levels, needing to go to the bathroom, water retention, etc. It does not show fat loss or fat gain. It can go up while losing fat or down while gaining fat. Just don't use it.

If you want to know if you're losing fat go by weekly pictures (not daily) and by your waist. Your waist will not gain much muscle. So if your clothes fit tighter around your waist then you're gaining fat. If they fit looser then you're losing fat. Period.

It really is the very best way to tell.

STEP FIVE (ADJUSTING MACROS):

In the original beta trials for this protocol, based on earlier conflicting research, we had said to recalculate the Fat Loss macros as you lost weight. We no longer do this.

In fact, as you go along you may find you get closer and closer to your original macro amount, and this is just fine. You see, you're also building muscle. So if you eat more one week than the week prior, as long as it is within your starting macro amounts that's fine, your body is using it and you'll still lose fat.

Just keep going and stick to the macro percentages.

STEP SIX (WHEN TO STOP THE FAT LOSS PROTOCOL):

As we get closer to the point where we're ready for the Lean Bulk, fat loss will slow and you will start getting hungry again. But now it will be *actual* hunger, not cravings.

This is because the hormones have been rebalanced to a large degree and the cells have become insulin-sensitive again, or mostly. If they hadn't you wouldn't have lost fat.

But we're hitting a point now where we've also added muscle and it needs to be fed. And if we carry on too far it actually becomes counterproductive to do Fat Loss anymore and we see more results doing a Lean Bulk — *even if you still have some fat to lose*.

So: cravings gone, increased hunger, and fat loss slowed down to a trickle. This is the time to move to the Lean Bulk.

Don't worry, you will still burn more fat on the Lean Bulk if needed, while building more muscle, which will help burn *more* fat as well as change body structure more toward how you want it.

Also, it's not healthy not to. If you're not feeding this new muscle enough to maintain it then your body looks on this as an *injury* and will release cortisol, leading to both fat gain and muscle loss.

So don't try to go too far here. If you've hit the point where your body fat is in range and fat loss has slowed markedly, and you're starting to feel hungry again, then it's time to switch from Fat Loss to Lean Bulking.

But you don't do it the same way you would if you were starting on Lean Bulking in the first place. Instead, there's an exact transition.

TRANSITIONING FROM FAT LOSS TO LEAN BULK

Transitioning to a Lean Bulk is quite simple:

Just take your current macros you've been using, by gram of each, and raise them by 10%. Do this by multiplying each one by 1.1.

Now push harder in your workouts, while still maintaining proper form. Use heavy weights where you can only do 6-10 reps per set before failure.

This will fairly quickly lead to increased muscle building and you will feel hungry again very soon, maybe even the next day. So we increase by another 5% by multiplying your *new* current macros by 1.05.

Keep pushing as much as you can to up weights and reps while maintaining proper form (do not go higher if form starts going out).

You will keep building muscle and that will require more food to supply nutrients for energy, and both muscle *building* and *maintaining*, so you will get hungry again pretty soon. Each time you do, up it by another 5%.

This will then level off in a week or two, but it's important to follow this. One rule on Lean Bulking is you should *never* be hungry. That's important. You're through cravings. So now if you're hungry it's because your body actually *needs* the food. Not feeding it will lead to muscle breakdown from your workouts and create new cravings due to cortisol release.

Then, if you start adding excess fat during this, just decrease macros by 5% or 10% for a couple days and this will come right back off. Do this by multiplying each macro per gram by 0.95 for 5% or 0.90 for 10%.

This is basically an effort to balance the amount of energy and amino acids (food) consumed, with the amount of energy and amino acids needed and *used*.

Without artificial cravings you will become more and more in tune with your body as when you feel hungry it will be because your body actually needs it.

Once you've transitioned onto Lean Bulking and are moving steadily, read the section entitled **DIALING IN YOUR LEAN BULK MACROS** for further guidance.

WHAT DO I DO IF I CHEATED OR FELL OFF THE COURSE:

I understand. I really do.

I won't say it's viciously done, but do realize the makers of these high-sugar packaged foods *do* know what they're doing.

There's a reason you can't stop eating a bag of Doritos until you're done with the bag (and if you can then you're not from Earth).

The goal of the makers of these products is for you to buy more of them. And they will do what they feel they need to do to achieve that goal. If this means making these products somewhat or fully addictive then, if it can be legally done, do you see a reason they would not?

They do hire very skilled chemists after all and I cannot claim to know what all of the ingredients in these foods do inside of a body. Possibly their chemists do, but not I. I don't even know of research studies done on the effects of many of them or I would have included them in the guide.

But what I'm trying to say is — *don't kill yourself over it*. They're designed to make you addicted.

Really.

So what do you do if you cheated or fell off the horse? Just get right back on and keep riding. *And make sure your protein levels are staying high*. That really will help the very most.

And if you fall off again, fine. You're not a failure, and you're not hopeless. Just get back on and keep riding, *as many times as it takes*.

The only *real* failure is to not get back on. And if you've read this far, then you're not the failure type. That I *know*.

TROUBLE SHOOTING — WHAT IF I'M NOT GETTING RESULTS?

The first thing to do if not getting results is to step back and look at what exact results you're trying to get.

Are you trying to lose weight, lose fat, build muscle, tone? These are each different goals.

Before we get into more specifics we'll address a few things.

HOW DO I KNOW IF I'M GAINING MUSCLE

This one is easy. If your strength is increasing then your muscle is increasing. It is impossible for one to happen without the other. So if this week you're able to lift heavier or more reps per weight than last week, you're gaining muscle. This will become more visible slower or faster on different people, but if strength is increasing then so is muscle.

HOW DO I KNOW IF I'M GAINING OR LOSING FAT? (WITH NOTES ON WATER RETENTION AND PRE-MENSTRUAL SYNDROME)

If your pants are looser around your waist then you are losing fat.

Please do not go by the scale. Weight loss has nothing to do with fat loss, it's really just a smart marketing gimmick to sell personal scales. I'm sorry, but it's true.

You can "gain weight" while losing a couple inches around your waist, and if you follow the scale game it will tell you that you've failed when really you won.

You can also lose "weight" by going to the bathroom, or losing muscle over time (while gaining fat). But you will not like the look.

Also, if you consume higher sodium than your body needs we see increased weight and bloat from water retention. This has nothing to do with fat. The best solution in this case is to lower the sodium and take electrolytes to help balance the water levels in your body. Salt/Sodium keeps water in and Potassium lets water out. They must be in balance.

For women, during the week or two before your period we can see lowered potassium levels leading to bloat so it's good to ensure you're taking potassium during this time as the body is flushing it out more than usual.

But the number on the scale is not something to use to determine results or a course of action. If you want a target number for fat loss then go by your waist size. That's the only number that will show results.

Your waist is one place on your body that does not "gain muscle". Yes, there's a little bit there, but not much. So if your waist size increases or decreases this is almost certainly an indicator of fat gain or loss, unless there is water weight here.

The way to tell the difference is how quickly did the weight or bloating rise? Fast

bloating or a weight increase of a few pounds over 1-2 days is almost certainly water weight, not fat. So lower sodium and take electrolytes.

To conclude: A scale shows a number that has nothing to do with slimness, toning, muscle or appearance, which are the things we actually want.

TROUBLESHOOTING THE FAT LOSS PROTOCOL

The Fat Loss protocol is very exact, more so than the Lean Bulk protocol.

There are four key things to look at if one isn't seeing fat loss: macros, weight training, cruciferous vegetables, and water retention as covered above.

MACROS: First, as many people are not able to hit the full Fat Loss macros at the beginning, due mainly to the natural proteins, there can be some trouble with the *ratio* of the macros they do hit.

Say for instance your calories are 1000 (to make it easy) and yet you can only get in 800 calories per day. That's a 20% decrease. But where are you missing calories from? Did you bring *each* macro down by 20%? Or did you just bring protein down? Or maybe, as we commonly see, did you bring protein down while raising carbs?

These are important points as it is is the *type* of food that the calories come from *not the total number of calories*. 10 grams of eggs will give you 5 grams of pure protein for muscle building and hormone production and 5 grams of sugar. 10 grams of carbohydrates on the other hand will give you 10 grams of sugar. And, if we need you getting less sugar to lose fat then this will slow fat loss, or if too much, possibly increase fat. Lowering protein lowers muscle building and hormone production.

So being exact on your macros is important.

Also, on Fat Loss, as we're first looking to rebalance hormones, a single cheat day can cost us a few days of work near the beginning. So work to not cheat or, if you do, fine, but realize you have set yourself back some and you will have to make up for some lost time.

WEIGHT TRAINING: This is another place I see people falling down. Weight training, with heavy weights that you can do more than 6-10 reps at a time with, are essential.

First, we know that muscle burns fat. The more muscle, the more fat burned. It burns more than cardio and definitely more than starving yourself. In fact, starving yourself can lead to high cortisol which will break down muscle to use for energy while holding onto and collecting more fat, all while your weight... *lowers*.

So weight training is key.

High levels of cardio can counter-act the muscle-building effects of weight training.

HIIT training with low weights and lots of motion acts more as cardio than weight training. Workouts that deal in low weights and high numbers of repetitions act more as cardio than weight training and won't build much muscle.

To build muscle you need heavy weights where you can only do 6-10 repetitions per set before muscle failure. It is heavy weights that build muscle and it's muscle that burns fat and tones and shapes your body.

You need to be getting in 5-6 days of heavy weight training per week to see results from this protocol. This isn't me trying to be mean, it's just the facts. If you don't, you *won't* see the results you want. If you do, you will.

So get in that heavy weight training, 5-6 days per week where you can do no more than 10 reps tops. If you can, then raise the weight. Also, ensure you're keeping proper form and stop if form goes out.

CRUCIFEROUS VEGETABLES: These are very important. They do two main things. First, they are very high in fiber and help push through the high amounts of protein you're consuming on this protocol.

But they also help remove excess estrogen from the body. Remember, high estrogen lowers testosterone, instructs the body to keep and build fat stores, raises insulin and cortisol which also instruct this as well as lowering testosterone and growth hormone. And it lowers thyroid which we need to help burn fat.

It does the above in both men and women and is necessary for both. So keep this in.

FOLLOWING THE PROTOCOL: The protocol works quite well, and faster than most. But it is exact. The more closely you follow it, the faster and better your results.

So make sure your macros are correctly counted, that you're doing at least 5 days of heavy weight training and getting in your cruciferous veggies.

Beyond that ensure you're not consuming processed foods, that your meats are 100% grass fed, that there aren't hidden calories in any of your foods or condiments, that you're taking 1 serving of PerfectAmino for every 50lbs of body wight, plus 1 more (so if you're 150 lbs this would be 4 servings), that you're taking your Omega 3s or getting in fatty fish, and that you're taking digestive enzymes to ensure full break down of your proteins.

If you follow the above there is no reason you should miss on this program.

But if you're still running into trouble just message us here for guidance: **m.me/PerfectAminoFatLossAndLeanBulkProgram**

TROUBLESHOOTING THE LEAN BULK PROTOCOL

Trouble spots in the Lean Bulk protocol mainly come down to not increasing in strength — and so muscle, not losing excess fat or instead gaining excess fat along with the muscle, low energy levels, and poor recovery.

And these points come down to similar points as in the Trouble Shooting Fat Loss section above: macros, weight training, cruciferous veggies, water retention and cardio.

MACROS: We'll take these up first as they're the most common problem. As covered in **DIALING IN YOUR LEAN BULK MACROS** (which you should also re-read if you're running into trouble) you should never be hungry. If you are then you need to increase macros or your body will a) not gain muscle and b) potentially gain fat. But the key here is to raise all macros *evenly*.

If you're gaining fat during the Lean Bulk this means you're consuming more calories than your body needs for energy and so it's storing them as fat. This usually comes from being lower on your proteins and higher on carbs or fat.

Your body needs the carbs for energy and the fat for energy and cellular growth. And it needs the protein for cellular growth, including muscle, and hormones and enzymes.

If you increase carbs to give yourself more energy for your workout, and so work the muscles more, but don't at the same time give your body more protein to build muscle with, then you won't grow more muscle and the excess carbs will not be used to better your workouts as the muscle will only lift so much before it needs protein to increase it's power or even recover from what you put it through.

Protein increases muscle when the muscle is stimulated with heavy weights. Carbs give that muscle energy to operate. They must be raised evenly or we get excesses or deficiencies.

Lack of recovery comes from too little protein, not too little carbs. Your body can even turn protein into carbs if needed, but can't turn carbs into protein. So if you go over, make sure it's on protein, not carbs.

So if you're hungry: raise macros but do so evenly. And if you're gaining excess fat: lower macros, but do so evenly.

WEIGHT TRAINING VS CARDIO: I really can't say this enough: Heavy weight builds muscle, cardio counter-acts this.

If you are not getting in your 5-6 *heavy* weight training sessions per week this protocol will not work for you, or not nearly as well. Progressive overload of the muscles with heavy weights is what builds muscle and muscle burns fat more than anything else.

If we do low weight, high repetition workouts instead we're actually doing cardio. This will not build muscle.

If you want to do cardio as well, that's fine. But first don't do it for fat loss as muscle building is better. And second, realize it may impact your muscle gains some. If you love cardio, by all means do it, but be realistic in your goals.

Also, for cardio this is more energy intensive and requires more carbs specifically. If you don't feed your body more natural carbs for cardio it will break down muscle into amino acids and convert these to sugar for energy.

So give it more carbs depending on how much cardio you're doing.

But also give it more protein. The protein will ensure recovery occurs and also helps to lower cortisol from the extra cardio, which we need. Raise carbs and proteins on a ratio of 2 to 1 when doing heavy cardio along with weights, and try to keep the two separated as much as you can.

CRUCIFEROUS VEGETABLES: These are very important. They do two main things. First, they are very high in fiber and help push through the high amounts of protein you're consuming on this protocol.

But they also help remove excess estrogen from the body. Remember, high estrogen lowers testosterone, instructs the body to keep and build fat stores, raises insulin and cortisol which also instruct this as well as lowering testosterone and growth hormone, and it lowers thyroid which we need to help burn fat.

It does the above in both men and women and is necessary for both. So keep this in.

TO BUILD MUSCLE FASTER & BIGGER go for even heavier weights. Use weights where you can only do 6-8 reps per set before failure. And if doing workouts by muscle group, then at the end take the main exercise and do a set or two of an even heavier weight where you can only do 3-4 reps max.

So if you're doing chest and you start with a regular bench press, and then do incline, flys, and triceps... end with 1-2 sets of the regular bench press at a weight that only allows for 3-4 reps per set.

This "shows" the muscle how much more weight it needs to be able to easily lift and pushes it to increase toward that.

Doing this will also most likely require more food the day of as that last set really does give it to you. So make sure to eat and take another serving of PA on that day if needed.

GETTING EVEN MORE TONED FOR THAT CHISELED LOOK

If you're quite lean then the above protocol may not get you leaner. That's just the truth. When all hormones are balanced, nutrition is on point, and proper workouts being done the body will optimize to what it feels is the healthiest fat range for you. This is mainly based on genetics.

So if you want to lose even more fat, as a personal choice or for competition, while maintaining your muscle, then do the following:

Cut back on your carbs and fats by 5% or 10% depending on how cut you want to look. But DO NOT cut back on your protein.

Then push as hard as you can in the gym, working to best your last weight or rep amount every time you do that same exercise again. *Really push yourself*.

In a week tops you should be much leaner.

However, if you want to get even leaner, reduce carbs and fat by 15% for several days to a week, while increasing naturals proteins by 10% — and push *very hard* in the gym.

You will most likely want to take an extra 1-2 servings of PA during this time as well as you will need it for recovery.

I cannot guarantee that you will keep this fat off if you do this as it may not be what your body considers optimum and your body may work to "correct" it. But for a competition, photoshoot, wedding... whatever it is, this done for a few days to a week (I don't recommend doing it longer) will chisel you out quite well.

FOLLOWING THE PROTOCOL: The protocol works quite well, and faster than most. But it is exact. The more closely you follow it, the faster and better your results.

So make sure your macros are correctly counted, that you're doing at least 5 days of heavy weight training, and getting in your cruciferous veggies.

Beyond that ensure you're not consuming processed foods, that your meats are *100%* grass fed, that there aren't hidden calories in any of your foods or condiments, that you're taking 1 serving of PerfectAmino for every 50lbs of body wight, *plus 1 more* (so if you're 150 lbs this would be 4 servings), that you're taking your Omega 3s or getting in fatty fish, and that you're taking digestive enzymes to ensure full break down of your proteins.

If you follow the above there is no reason you should miss on this program.

But if you're still running into trouble just message us here for guidance: **m.me/PerfectAminoFatLossAndLeanBulkProgram**

WHICH FOODS CAN I EAT?

DOWNLOAD JUST THIS SECTION

Below you will find a list of foods to avoid based on the information in the guide. The list of foods to eat is probably much shorter than you'd like, but just ask us in the **group** and we'll let you know. The key is making sure it is natural, whole-food, unprocessed and not a fast-acting sugar.

CARBS TO AVOID:

Any Refined Grains
Bread: white bread, bagels, naan, pita bread
Rice: white rice, jasmine rice, arborio rice
Cereals: instant oats, breakfast cereals
Pasta and noodles: lasagna, spaghetti, ravioli, macaroni, fettuccine
Starchy vegetables: mashed potatoes, potatoes, french fries
Baked goods: cake, doughnuts, cookies, croissants, muffins
Snacks: chocolate, crackers, microwave popcorn, chips, pretzels
Sugar-sweetened beverages: soda, fruit juice, sports drinks

CARBS YOU CAN HAVE:

Fruits: apples, berries, oranges, lemons, limes, grapefruit, pears, etc.
Non-starchy vegetables: broccoli, cauliflower, carrots, spinach, celery
Whole grains: quinoa, couscous, barley, buckwheat, farro, rolled oats
Legumes: lentils, black beans, chickpeas, kidney beans

PROTEINS:

Meats must be Non-GMO fed and 100% Grass-Fed for fowl and beef. Also wild caught fish.
Whole eggs.
Pea Protein is okay for Vegans but every 20 grams must be counted as 10 grams of protein and 10 grams of carbs.
Organic Seitan and **Tofu** are okay as well but may require higher amounts of Omega 3 to balance out the fats.

FATS:

Heavy whipping Cream - not half and half as most is too processed, unless you find one that is not processed
Organic Oils: olive oil, coconut oil, avocado oil, grass-fed butter
Nuts: almonds, macadamia nuts, walnuts, pistachios
Seeds: chia seeds, sesame seeds, hemp seeds, flax seeds
Animal fats
Olive oil vinaigrettes are a great way to get in extra fat

FREQUENTLY ASKED QUESTIONS

Q: What if I can't take as much PerfectAmino as I need to for this?

A: For every serving of PerfectAmino you can't take, add in 2 whole eggs and reduce carbs by 12 grams. If you have any digestive issues take 1-2 capsules of Full Spectrum Digestive Support to ensure you get the full amino acid benefit of the eggs.

Q: What if I get heartburn or gas when I take the PerfectAmino?

A: The heartburn is a sign of low stomach acid causing the food to take longer to break down and later bubble up into your esophagus along with some of the acid. In this case take 1-2 capsules of the Full Spectrum Digestive Support *with* each meal and 1 capsule when you take the PerfectAmino and this should calm right down. Take it *with* the meal, *not* before. This is important.

Q: I gained weight immediately after starting PerfectAmino, what do I do?

A: Very fast weight gain comes from excess water retention. Sodium and potassium help to balance water levels in the body. Sodium works more on holding water and potassium works more on flushing it out. Get some electrolytes and make sure your salt intake isn't high and this should come right off.

Q: My clothes are looser but I haven't lost weight?

A: This is fine, pound for pound, fat takes up more space than muscle. As you increase muscle and lose fat you will see and feel a difference. But if you didn't have much fat to lose, you may not see too much of a difference on the scale. And when you start really adding muscle, your weight will go up, *but you will be slimmer*.

Q: Can I take too much PerfectAmino?

A: Yes and no. We often tell people not to take more than 2 servings at a time unless they are over 200 lbs in weight. But this is because we don't want you to waste your PerfectAmino, not because extra will harm you.

PerfectAmino will be in your blood stream for about 2-3 hours and more than 2 servings likely won't be utilized fully for most people. However, if you would like to take more to see if it will help, this won't harm you. Even if one serving of PerfectAmino were fully un-utilized for protein building, it would only be converted to 10-20 calories. It would be like taking an extra 5 grams of whey protein.

Q: I'm worried about my kidneys? Will PerfectAmino cause me trouble?

A: PerfectAmino is the best source of protein for anyone with kidney trouble. Not only will it support the healing of the kidneys, but, as it is 99% utilized to build new protein and collagen, by replacing out other partially utilized protein sources that the

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