

# BINARY STRENGTH

*Complete Diet Guide for Any Fat Loss Goal*

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This guide is effective for any body type and genetics

Source: [Jonathan's YouTube Channel](#)

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Kept updated, FREE, downloadable at [jonzhao.com](http://jonzhao.com)

Hosted by Shopify because it's where I work

(no time to waste selling you fitness info that should be free)

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# Complete Diet Guide: Nutrition, Metabolism, Mindset



## Pre-face

Every word in this guide is first written to my son Andes, so he can grow up inspired to do due diligence and critically think about every aspect of life as he goes on his own journey. I want him to be free, unchained, and not caged in by misinformation in this world caused by human egos and ignorance. I want him to learn how to unplug from the matrix each time he's pulled in.

Many popular fitness influencers, including ones I enjoy watching, have serious eating disorders, body dysmorphia, addiction to harmful enhancements, and other issues that they rarely talk about. One guy I followed passed away recently from undereating and overexercising in a rush to get shredded. Fitness should be enhancing our mental health. If it's not, it's best to stop and figure out what's wrong.

Please treat this guide as my own opinions. It's part of my evolving essay on life, Binary Strength.

I'm also writing this for my male friends and co-workers who deserve more than to be confused and mislead by misinformation or too much information designed to monetize their attention.

This guide will also apply for genders beyond male, but it's most accurate for the male gender since that's the only gender I studied thoroughly and experienced myself. This guide is also written to myself as I process and heal after a very painful divorce. [It's the reason I got into fitness to begin with](#), a positive outlet for expressing strong emotions. Now that this guide is done, I can finally move on and start dating again, to hope again. Odds are stacked against me, but Binary Strength is about breaking limits. I'm not sure why, but something deep inside pulled and guided me to finish this guide.

I believe all men deserve to know how to reach their peak genetic potential. Then it's up to them to decide if they want to or not. I'm not here to say everyone should have visible abs. That's why this guide will work for any bodyfat % targeted. That said, as a man, I believe the #1 most important product to invest in is yourself. It is a worthy goal to become the best version of ourselves: physically, mentally, and spiritually. No one will ever care about you as much as yourself. You're only responsible for your own happiness. You cannot make anyone else happy. I say this from reflecting on my own failures.

By being at your peak physically, mentally, and spiritually, I believe you will undoubtedly be the first choice to someone out there and thus instinctively adopt an abundance mentality across all aspects of life. By this point, you would've also become a man that women who match you deserve, no longer an insecure child. This is effective in existing relationships too, saving years of compound stress.

This level of being also makes you extremely resilient to negativity, tragedies, loss, and suffering that we all face in life. You will no longer experience fear that cripples you. When you feel afraid, you will lean into it with courage because you have complete confidence in your true strength and its source.

This guide will always be free to download at [www.jonzhao.com](http://www.jonzhao.com) as my self-expression to counter every negative experience in my life with 10X positivity back. If you're reading this and you're a man, I wrote this for you. If you found the guide useful, share it with another man so they can get value as well.

~ Jonathan Zhao, April 2022



# Introduction

This guide will contain all critical elements of **Dieting: Nutrition, Metabolism, and Mindset** to transform any male human body to become lean and muscular. It works for any body type, genetics, and fat loss goal, including reaching 10% bodyfat and below. I'm still learning so expect updates periodically, including corrections made along the journey. Strength training is not covered since it's already in the [Binary Strength - Complete Functional Workout Guide](#).

I've structured this guide to treat developing your peak performance self as a product:

1. Nutrition and Metabolism Mastery to Lose Bodyfat **(done)**
2. Mindset to Reach Peak State for the First Time **(coming later)**
3. Mindset to Stay Lean Forever **(coming later)**

**The most important thing is taking massive action to start, build momentum, and create a flywheel for yourself.** This is why I left mindset to later. Your psychology will naturally change in the process. What I'll share in #2-3 above will just help accelerate your progress. #1 is most important.

This guide is intentionally long. You likely have a good education and good career. When you wanted to make more money, you likely invested significant effort. You probably didn't get to where you are today in life by following a short guide. Getting to 10% bodyfat is easier than earning your first million and the key is applying the exact same mentality used for your own career or business to your fitness goals.

**You can translate an existing win to a new win tailored to yourself.** If you remember to apply this each step of the way, I'm confident you'll reach your fitness goals and surprise yourself in the process.

Getting to 10% bodyfat or lower is not impressive. People into fitness can do it. But, doing it as a mid-30s regular guy with a desk job, without spending hours working out every day, without working in the fitness industry, is rare. This is what I want to share with you. I achieve this by prioritizing spirituality first. I'll explain more later.

I'm not going to reference any sources throughout the guide but I'd say 90% is distilled information from applying [Paul Revelia's videos on his YouTube channel](#), the coach I trust the most.

If you have questions or feedback, leave a comment on the latest video on [my channel](#). If you know me in real life, send me a DM and I'd be happy to discuss with you directly. I don't use social media but I'm on [LinkedIn](#) if you want to connect directly, but please mention Binary Strength otherwise I likely won't accept your invite.

Please note: there are Amazon Affiliate links in this guide. I haven't seen any diet guide on the internet this detailed being given away for free so I decided to create it. I derive no joy from selling fitness info so all fitness guides I produce will always be free. If you happen to buy the same products I use myself through links in this guide, Amazon gives me a credit to use for all my purchases and I'd be grateful, kind of like buying me a coffee online if you found info I share with you useful.

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# Nutrition and Metabolism Mastery to Lose Bodyfat

## The 10000 ft view of getting a lean and muscular physique

This section presents a concise view of everything you need to do to build a lean and muscular physique. It applies regardless of what level of leanness you're targeting.

I will explain the rationale behind everything because you must understand each "why" behind each "how" to truly internalize the knowledge so you can apply everything properly.

This is compiled from the latest and greatest in modern bodybuilding and nutritional science combined with decades of experience from world class coaches and my own experience.

**Outcome:** a lean and muscular physique

**The 2 most important high-level goals:**

1. High enough muscle mass
2. Low enough bodyfat % to reveal muscle definition

When you see a man and think he's "ripped" or "shredded", it's because the above two goals were met.

The first goal of **high enough muscle mass** is already covered in the [Binary Strength Complete Functional Workout Guide](#), which specifically creates a functional physique. You can reach this goal via whatever training method that you enjoy. My guide simply demonstrates that calisthenic is sufficient which I used from March 2020 to March 2022. Now that Covid is pretty well managed where I am, I'm back in the gym for the mental benefits of sensing other humans nearby. I'm now training using a hybrid of compound movements with weights and calisthenics in the gym.

We will focus this diet guide on the second goal: **low bodyfat % to reveal muscle definition**. Low bodyfat % makes the most difference visually. People will dramatically overestimate your muscle mass when bodyfat % is low and dramatically underestimate your muscle mass when bodyfat % is high.

### Bodyfat % in Detail



A lot of people have significant muscle mass due to the popularity of gym culture these days, but very few look truly shredded because their bodyfat % is too high.

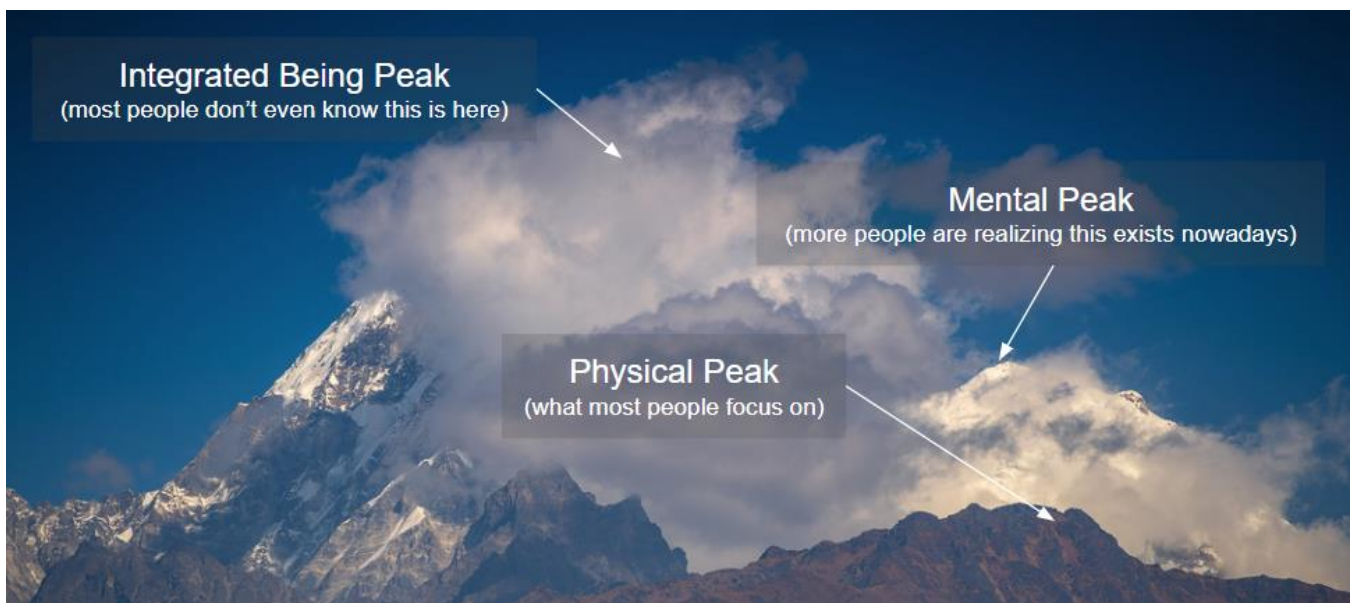
If you achieve a low bodyfat %, you don't need a lot of muscle to appear shredded.

Personally, I noticed that when you walk around at 8-9% bodyfat, random people often start conversations with you, especially in the summer. It doesn't happen much until a certain level where it seems like a massive step function change. I believe this is probably

due to some human instincts that rapidly process a few traits that come out at low bodyfat %s, even with clothes on: posture, jaw line, facial feature changes from high testosterone, vascularity of veins, especially forearms, deeper voice, general aura of confidence in your own skin. You will get a lot of free stuff from random people. These are moments where you need to decide what to do. For your own sake, I hope you don't become a narcissistic gym bro. I believe **becoming fit just for approval is the lowest level of fitness**. It's a good starting point but not your true potential.

Approval by others is often the primary goal of why men pursue a lean and muscular physique. Ironically, it is one of the most counterproductive reasons that hold men back from reaching their peak physique. This is because the reason is usually too shallow to cause consistent behavioral change needed, especially among regular working men with full time careers. You need something more.

To me, being insecure is among the worse traits a man can have and something I consciously work on myself. I do this by developing confidence to tackle any challenge in life. This is why **I must advocate against dieting only to look better because it's not developing inner strength**. It pains me to see men who are already 10% bodyfat still caring about what others think of them. That is not true freedom.



It's fine to start a fitness transformation journey for the purpose of looking better (physical) or feeling less insecure (mental), but if that's all you gained on your journey then I believe you would've missed your biggest opportunity. You can go even further beyond (insert SSJ3 theme).

I didn't write this guide for people who work in or are already very involved in the fitness industry. They can reach 12%, 10%, or even lower bodyfat %s because their lives revolve around it.

I wrote this for the everyday working man. Among these men, going from 30% bodyfat to 15% is very achievable and is much easier than going from 15% to 10%. Getting to 10% and below is for a special breed: warriors. These are often people with something deep to prove to themselves. Men who choose to maintain sub 10% bodyfat year-round, who aren't doing it for bodybuilding competitions, are the 1% of the 1%. These are men who have mastered self-discipline, often with a burning desire to be the best version of themselves. At this state, you will access new experiences in life that's very fulfilling. Even regular experiences are enhanced because you would have peak physical, mental, and spiritual vigor. You can decide for yourself what your target state is.

**You can achieve *any* target bodyfat % by optimizing these 6 focus goals simultaneously:**

1. Be in a caloric deficit and adhere to macros
2. Get feedback regularly
3. Master your metabolism by delaying plateaus and breaking through them
4. Minimize muscle loss
5. Maximize non-exercise activities

Without gifted genetics, it usually takes a long time to reach 10% bodyfat or below, especially when you have a full-time job outside of the fitness industry. This brings us to the final and most important goal:

6. Recover well

Optimizing for the 6<sup>th</sup> goal supercharges your body's responsiveness to change. I discovered how to do this by accident. My thesis is one that not everyone will agree with but it would be a disservice to the world to keep this for myself, which is to prioritize your spiritual wellbeing as #1.

I believe that fundamentality fitness and human transformations of body and self is connected to the concept of our own existence and meaning in life. When fitness is only about what human eyes can see and what the mind can understand, in the physical realm only, it's superficial to me and the greatest missed opportunity.

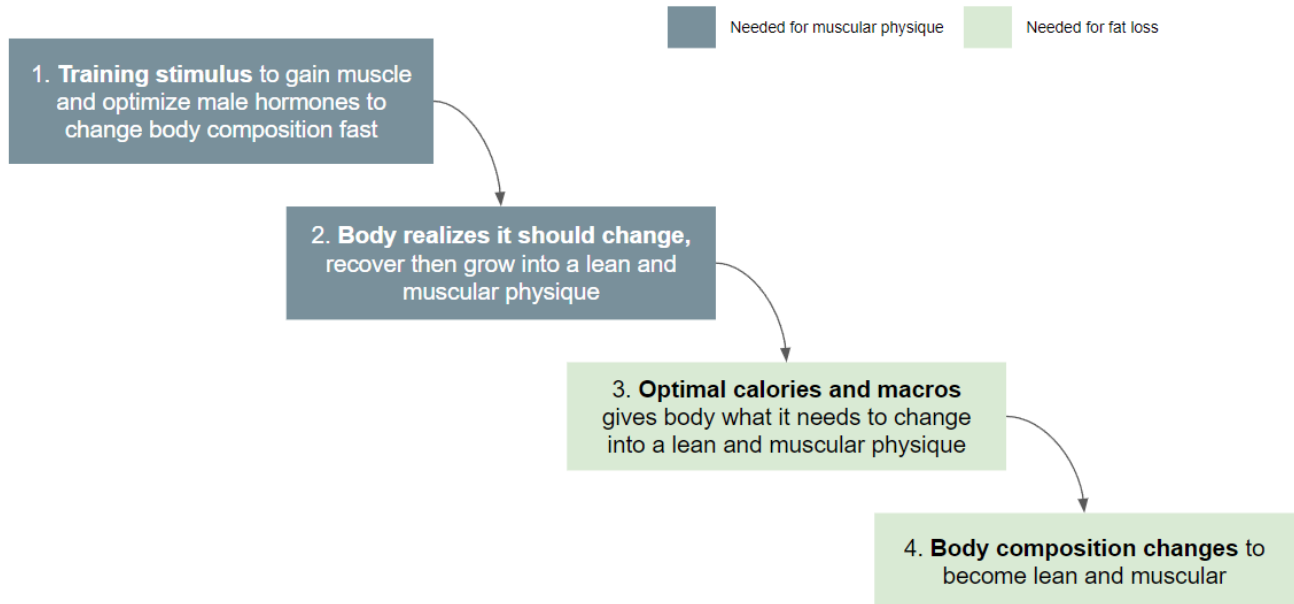
Now let's dive into each goal in detail.

# Focus Goal 1: Be in a caloric deficit and adhere to macros

**Principle: workouts and what types of food you eat don't change body composition, calories and macros do**

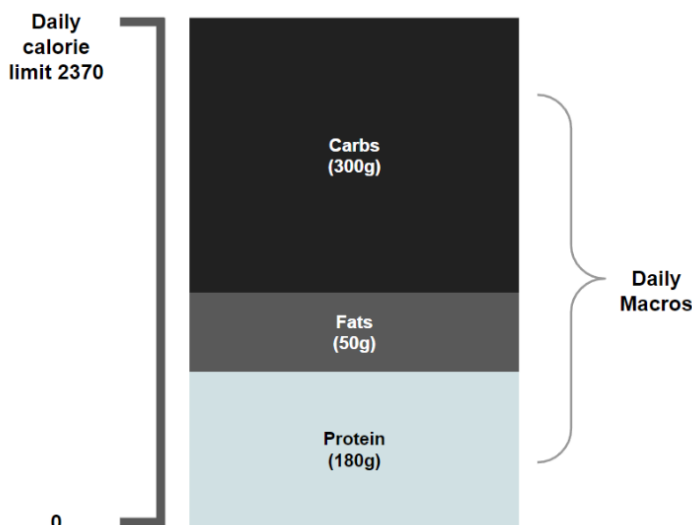
Working out is just the stimulus. You need it to build muscle.

But it's not a critical part of losing fat, calories and macros are.



(how I view the 4 high levels steps in body transformations)

Macros is short for macronutrients, which are carbohydrates, fats, proteins. **By controlling the amount of these three macros you eat daily, results are guaranteed.** You measure these macros in grams (g). For example: 300g carbs, 50g fat, 180g protein. 1 gram of carbs or protein is 4 calories. 1 gram of fat is **9 calories**, more than 2X calorically dense as carbs and protein and the easiest to overeat.



For easier comprehension when I say macros in this guide, I mean the both the amount and ratio. Since you probably haven't instinctively associated macros to calories yet, I'll often also say "calories and macros".

What you eat does matter but not nearly as much as you think. You can eat pizza and be shredded if you followed the right calories and macros. Benefits of eating healthy food will be discussed later.

Eating the wrong calories and macros will make you fat or even obese overtime.

Eating the right calories and macros will make you shredded over time.



Think of macros like a balanced investment portfolio except unlike the financial markets, the body is a lot more predictable within a short window of time.

**Super important scientifically proven truths you must remember, even if it's different than what fake gurus and influencers online say:**

1. Carbs – **absolutely critical for fat loss**, only turns into fat when you're in a caloric surplus. Spikes insulin, but it's required to transfer nutrients around the body efficiently. Insulin is only a problem when you're in a massive caloric surplus.
2. Fats – least helpful for fat loss, easiest to turn into fat, can turn into fat even if you're not in a caloric surplus
3. Protein – necessary for muscle growth and all body functions, most important for fat loss

**Principle: you cannot defy the law of thermodynamics**

Energy cannot be created or destroyed. We can measure energy from food as calories. We can also measure energy our body uses as calories.

This means if you eat more calories than calories you use, that has to go somewhere, and most of it will go to fat cells that your body stores as reserve energy.

This is often referred to as **Calories In Calories Out (CICO)**. It's not the complete story but a huge part of it. CICO + Hormones + other aspects of the body are all critical elements controlling fat loss. We'll dive into more on this later in the guide.

Don't believe in the BS online about how fasting allows you to eat a lot more and still lose weight. Fasting has benefits but not nearly as much as you think for fat loss. It does help produce growth hormones but the impact is minor vs simply being in a caloric deficit, which also increases growth hormones. Whenever people fast and lose fat it's largely because of being in a caloric deficit.

To be in a caloric deficit with **the most optimal macros for a lean and muscular physique**, this is what you need to do:

1. Go to a TDEE calculator like <https://tdeecalculator.net/> and calculate your macros.
  - Whatever you estimate your activity level to be, choose 1 level below that because you will over estimate your activity level. It's better to underestimate. If you're off by a little, you'll learn how to adjust as you go.
  - Use the calculator to determine your max daily caloric intake for maintenance, ignore everything else. Maintenance calories mean if you eat that much every day, your weight wouldn't increase nor decrease.
2. Download MyFitnessPal on your phone <https://www.myfitnesspal.com/> and click on set goals.
3. Set your calories to the maintenance level calculated in step 1 minus 500 calories.
  - 500 caloric deficit is recommended by experienced coaches because cutting more has a high chance of causing you to not adhere to the diet and binge eat. Anything less is too little to cause the body to change fast.
4. Set protein to 1g / lb of your current weight.
  - For example, if you're 180lb, set your daily protein intake to 180g.
  - If you're close to 12% bodyfat (can see abs when not flexing but not super well defined), set your daily protein intake to 1g / lb of your target weight instead of current weight.
5. Set fat to 0.25 – 0.4g / lb of your current weight but do not drop below 40g.
  - Going below 40g fat / day as a male has serious negative impacts to hormones that will be counterproductive to fat loss.

- Use higher range if you use oil in cooking instead of cooking sprays like Pam since it will be very hard to keep fats close to 40g / day if you use oil in your food.
  - Fat is the easiest macronutrient to directly turn into bodyfat, especially when consumed with carbs. Whenever you eat carbs, insulin increases and opens up cells to absorb whatever you eat, which is a good thing.
  - If you're in a caloric deficit, even if you consume a lot of fat like on a keto diet, you will lose fat, but this is simply not the scientifically proven fastest way to lose fat.
6. Put the rest into carbs, which is needed for optimal body functions, building and keeping muscle, and using fat for energy. Fat loss happens best when the body has carbs. I'll explain later why low carb is not a good idea.
  7. Get a food scale like [this one on Amazon](#) and commit to weighing your food, at least for 2 weeks to build awareness of where calories come from. Ideally you continue to do it.

If you don't want to track food, you can still lose fat and probably reach 15% bodyfat no problem but I'm 99% sure you cannot reach peak state simply because hidden calories are everywhere and people are generally not conscious enough of every single time they consume calories. Tracking food helps you get used to a sense of how many calories are in all the foods out there. It's similar to budget management. When you see a piece of cake that you know is at least 800 calories, you would ask yourself, can I afford to eat this cake today and is it worth the cost of 800 calories? The answer might be yes. But at least you're conscious of it.

You can definitely lose fat and be fitter if you don't track food, but you will never be shredded and ripped unless you've tracked food for so long that it's instinctive to you and you don't even need to track to adhere to macros. I'm not this good yet simply because when I stop tracking, it becomes much harder to practice self-control. I would lose the gamified budget management mentality. I also personally enjoy fitting macros every day. It's a game I get to play each day with tangible results in a fast feedback cycle. Pretty awesome. This is why I believe engineers or anyone technical should be able to lose fat more easily than the average person, as long as they have discipline.

That said, obviously there will be days or meals where I don't track, especially when eating socially. The key is not being dogmatic but informed so you can make practical choices.

**Principle: maintenance calories change and need to be updated (probably the most important principle in this guide)**

Maintenance calories is not static. It's dynamic. As you lose weight, your maintenance calories will change due to metabolic adaptations so you have to recalculate maintenance regularly after each significant weight loss milestone. Therefore, you must also adjust your macros as your weight changes using the same method above to determine how much protein, fats, and carbs you should set.

After using the TDEE calculator once in the beginning, **all subsequent calculation of maintenance calories must come from *real* data, specifically daily weight and calories eaten data.**

Technically maintenance is constantly in flux but it's not practical to try to be super accurate in knowing what true maintenance is all the time. That's why a 14-day lookback window is good enough.

You calculate maintenance periodically by:

1. Assuming you tracked **all** food intake daily, sum all calories you consumed in the last 14 days (good window to account for daily variances), call this **Total Calories Eaten**
2. Assuming you weighed yourself daily, calculate how many lbs of weight was lost in the last 14 days, take this and multiply by 3500 calories / lb of fat, call this **Net Calories from Fat Loss**

3. Your new daily maintenance caloric intake is **(Total Calories Eaten + Net Calories from Fat Loss) / 14**

This means if you ate at this new daily maintenance caloric intake each day, your weight shouldn't change much. If you tracked accurately, this process is proven and indisputable. There might be slight weight loss or gain but even accounting for water retention fluctuations, any delta would be due to inaccuracies in tracking since it's not possible to be perfect in tracking. The entire concept of CICO and counting calories is about close estimations to reality.

The above method doesn't factor in the different activity levels throughout the 14 days but that's why we use a long enough time window to adjust for small variances that should average out. It's good enough to use unless you had abnormal activity level in those 14 days.

**Did you notice that the TDEE calculator did not have any inputs about genetics or body type (mesomorph, ectomorph, endomorph)?** We'll get into what this means later. Genetics do matter for fat loss but not in the way that most people believe.

### Controlling Appetite

Putting a daily upper limit on caloric intake is about one single thing: **appetite suppression**. Imagine if you rarely wanted to eat and would have to consciously try to eat. Obviously, you would become shredded pretty easily over time, provided that you strength train and optimize all the focus goals in this guide. Genetics do matter in fat loss but not in the way you think. **One of the things genetics play a major role in is predisposition to have bigger or smaller appetites.** This is why often men with skinny body types find it hard to become very muscular because they actually find it difficult to eat enough food to gain muscle. Men who tend to be overweight do not have this difficulty.

### **Step 1. Minimize sugar**

Sugar, in all its forms, including the many names it shows up as in process foods, is your number one enemy preventing you from becoming your peak physical form.

Aside from all the health problems and diseases sugar causes, the biggest problem is that it's addictive in the brain and gut (your second brain). The more sugar you consume, the more you want to eat it or just eat food in general. I have almost 0 sugar intake during weekdays. I use Stevia or sugar free syrup sometimes to sweeten things like Greek yogurt. Artificial sweeteners, which are also included in protein shakes, are not nearly as harmful as sugar, despite the sugar industry's effort to make people believe it is.

### **Step 2. Minimize or avoid binge eating**

**Principle: binge eating is both psychological and physical**

Do not decrease calories too much too fast. Always be aware of your current maintenance calories and try to not eat below 500 less than maintenance each day. This is the best prevention to binge eating. Binge eating is becoming a social norm, especially for those who are trying to lose weight. Here's why:

1. Today's culture heavily influences us to consume more than we produce. Binge eating happens when you psychologically feel deprived and want to consume. Experienced monks or anyone living a minimally consumption-oriented life don't binge eat.

2. Today's fitness industry often influences people to cut calories way too damn low and too fast. Binge eating happens when your body physically actually needs to binge. Most people don't realize this.

This is the definitive book on the subject: [Brain over Binge](#). You don't have to be bulimic or suffer from eating disorders to get massive value from this. It's also an entertaining story.

If you can avoid or minimize binge eating, you will dramatically accelerate your fitness progress and maximize your chance of reaching your fitness goals.

### **Step 3. Try to avoid cardio if you can, especially high intensity cardio**

**Principle: your body doesn't care about your fat loss goals and just wants to heal itself each time you exert energy**

Cardio will consume some muscle, regardless of intensity. The higher the intensity the higher chance of muscle loss. Cardio will also require recovery, consuming the same recovery capacity you have in a week for strength training recovery.

Cardio increases appetite for the day you perform it and days afterwards. This is one of the main reasons why people into fitness who exercise a lot are finding it hard to build muscle and lose fat. The increase in appetite vs calories burned from cardio is not a good ratio. The number of calories you burn is almost always much less than the number of calories you need to eat to deal with the appetite increase, therefore putting you into a caloric surplus (gain fat), or at best, maintenance (no fat loss). I suggest limiting cardio only to activities that truly make you happy regardless of fitness goals.

### **Step 4. Strength train with compound movements that are extremely challenging to you**

Strength training at extremely high intensity is one of the best ways to suppress appetite. This isn't intuitive but it's how the body works. Compound movements challenge the entire body's central nervous system in a way that makes fat loss much easier. This is one of the reasons why elite level calisthenics is easy to use as the training method to remain ripped year-round.

### **Step 5. Use appetite suppressants**

I just drink 2 cups of coffee and make sure to get enough fiber every day (30g+). There are more ways such as tea, ginger, lemon or lime juice, apple cider vinegar, etc.

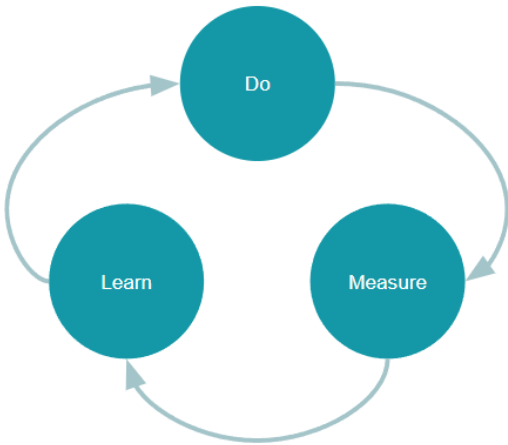
### **Step 6. Every time you feel hungry, drink a lot of water first**

I consider this one of the most important things you have to master during a caloric deficit.

When your body is in a caloric deficit, it uses significantly more water than normal because of complex processes taking place that will lead to fat loss. **When the body lacks water, besides feeling thirsty, you'll often also feel hungry.** This is one of the most important biological feedback loops that was discovered recently: you think you're hungry but you're actually thirsty. This happens more frequently in a day than you realize.

Always drink a lot of water every time you feel hungry first. It's the first defense against making poor choices that lead to not being within that day's calories and macros goals.

## Focus Goal 2: Get feedback regularly



### What isn't measured cannot be managed.

You must measure to know if you should stay the course or make changes.

Weigh yourself daily in the morning right after getting up, before getting dressed. **Do not react daily if your weight goes up or down** because daily fluctuations are normal since 70% of the body is water.

Compare each day's weight with your weight from the same day of week but a week earlier. For example, if today is Monday, then compare to last Monday.

The more fat you have the faster you'll lose it, the less fat you have the slower you'll lose it.

Bodyfat %	Healthy rate of fat loss / week to minimize muscle loss
More than 12%	0.5-1% of your bodyweight
10-12%	0.25 - 0.5% of your bodyweight
10% or less	0 - 0.25% of your bodyweight

See if you're losing weight at the healthy pace above, if so, keep doing what you're doing.

Unless you are obese, if you're losing more than 1% of your bodyweight / week (except initial water weight early in a diet phase), then you're losing muscle almost guaranteed, which counters one of the focus goals: **Minimize Muscle Loss**. You would have to slow your weight loss down by reducing activities or increasing calories. How much depends on how well you know your body, so you will need to experiment and re-measure. For example, increase daily calorie intake by 100-200 calories, keep everything else the same. Keep this consistent for 7 days, reassess.

An exception to this is if you lost a large % of bodyweight in a week, say 2-3%, but your weight stayed the same for more than a week prior and you were adhering to calories and macros properly. This is because sometimes this happens: you're in a caloric deficit but you hit a fat loss plateau for 1-2 weeks, where your weight stayed the same and your body fat % didn't seem to change. Then you broke through the plateau (this guide shows you how) one day and suddenly that week you lose 2+% of your bodyweight. Coaches I follow all observed this phenomenon. I experience it myself frequently, no one really knows why this happens.

If you are strength training to signal to your body that you need to preserve and build muscle, it's the best thing we can do to safely assume that the vast majority of weight lost is from fat. There's no definitive way of knowing otherwise.

Unless you are already at, below, or close to 12% bodyfat, if you're losing less than 0.5% of your bodyweight / week, then:

- You can lose fat at a faster rate without losing muscle.
- You can speed up your fat loss by increasing activities or reducing calories. How much depends on how well you know your body, so you will need to experiment and re-measure. For example,



reduce daily calorie intake by 100-200 calories, keep everything else the same. Keep this consistent for 7 days, reassess.

- You can also increase activities or add low impact low intensity cardio that's easy to recover from and doesn't impede your strength training recovery.

Take pictures or visually inspect yourself in the mirror regularly since the scale is only one signal. For example, often a lot of fat is lost on your back, hamstrings, butt, or places that isn't easily viewable in front of a mirror. You can also use a measuring tape or generally assess how your clothes are fitting.



Sometimes the scale says you're losing weight but you don't notice it. This might also be because a surprising amount of fat is not visible and surrounds your organs. These are called visceral fat. See image from Harvard Health to the left.

A lot of people do not look that fat but have a high amount of visceral fat from a poor diet which puts them at much higher risk of health issues and diseases.

The key is **not making a judgement day to day**, but always comparing progress from about 7 days ago (week to week delta) because:

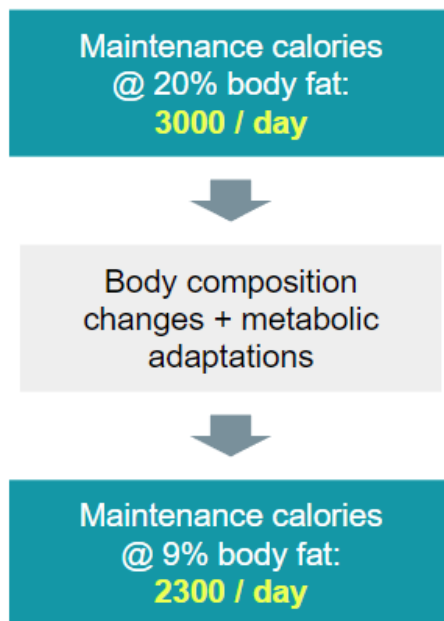
1. It takes the body several days to produce measurable changes
2. The scale is very sensitive to water weight fluctuations since 70% of your body is water

The best thing to do is **don't focus on the end goal** and instead **trust the do > measure > learn iteration process and be patient with a long-term mindset.**

## Focus Goal 3: Master your metabolism by delaying plateaus and breaking through them

You're now at the most crucial part of this diet guide. This contains information that are usually found only in paid guides and programs.

### Principle: fat loss plateaus are guaranteed



Even if you're doing all the right things, fat loss plateaus will happen because the human body adapts. Your metabolism will slow and get used to operating on less calories.

Calories In Calories Out (CICO) is often presented in a single dimensional format and doesn't account for metabolic adaptation. CICO is true in principle. In the end it's about calories you ate and drank vs calories used, but here's the catch, which we talked about earlier as a principle: **maintenance calories change as you lose bodyfat and as your body gets used to lower calories.**

This is one of the most important keys for fat loss that hugely impacts everything built on top of it, which I'll explain below.

### Principle: people's genetically pre-determined metabolisms don't differ that much

Scientists studied large populations of people with different physiques and bodyfat %s and found that actually genetically pre-determined basal metabolic rate as defined by science almost does not differ. The variance was 10% max. This means that **people who seemingly can eat a lot and not gain weight are simply burning more calories from physical activities or they're eating less than those with higher bodyfat %s when measured long term.** This is a revolutionary finding.

People overestimate the impact of what can be achieved in a week but underestimate what can be achieved in 52 weeks. If you observed a fit man for a day eating insane amount of food, your mind has a cognitive bias to assume it's due to gifted genes. If you observed an overweight man for a day and saw he only ate a piece of fruit that day and gained ½ lb the next day, you might assume he has bad genes. Humans tend to believe what you see is all there is, one of the main cognitive biases explained in "[Thinking Fast and Slow](#)" by Daniel Kahneman. Most of reality is unseen.

Genetics do impact the following:

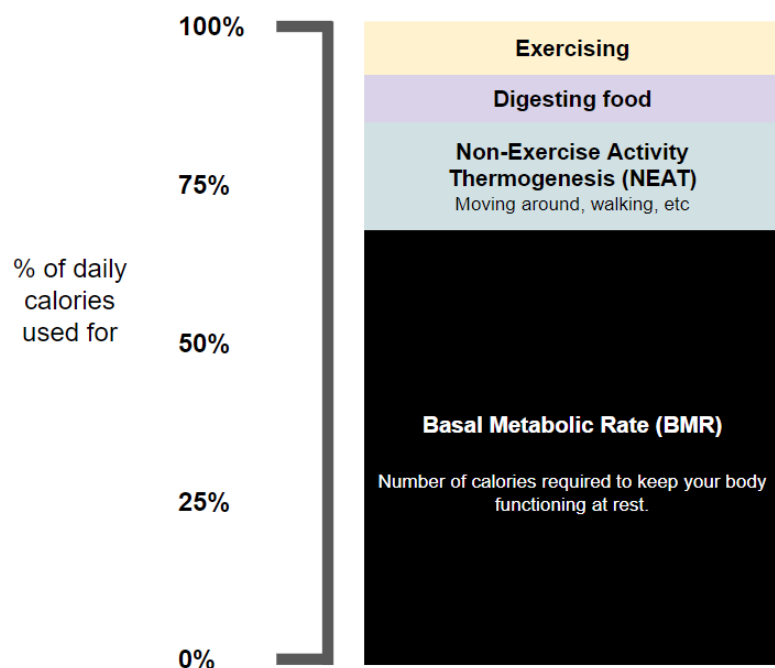
1. Order fat appears on your body and order they come off
2. Parts of your body that fat storage is concentrated in (fat distribution)
3. Parts of your body that fat is extremely difficult to come off of (stubborn areas)
4. Behaviors that cause more eating or less eating (strong brain neuro pathways)
5. Hormones that trigger muscle growth
6. Hormones that trigger fat loss
7. Hormones that trigger hunger (more eating)
8. Hormones that trigger satiety (less eating)
9. Muscle insertion (how muscles appear on your body, eg 4-10 packs on abs, 6 is most common)

10. Bone structure and size (frame for muscles to build on)

11. Height

All of the above factors that genetics impact play major roles in fat loss. So, genetics does matter but it's not an excuse since **it's a guarantee that calories, macros, and optimal recovery will change your body via the law of thermodynamics and biology of the human body.**

Once you've understood all the levers truly within your control, you will be extremely aware and attuned with your own genetics and each factor listed above unique to yourself. This is a worthy part of understanding who you truly are since your physical body is a big component of it. This can only be learned by consistent practice over time.



This diagram is an accurate view of factors contributing to fat loss and the impact of their contributions.

**Principle: within a 24-hour window, the vast majority of fat loss DOES NOT happen in the hours you spend consciously exercising, whether it's strength training or cardio (unless you're doing hours of cardio like marathons), it happens in the hours you're not exercising.**

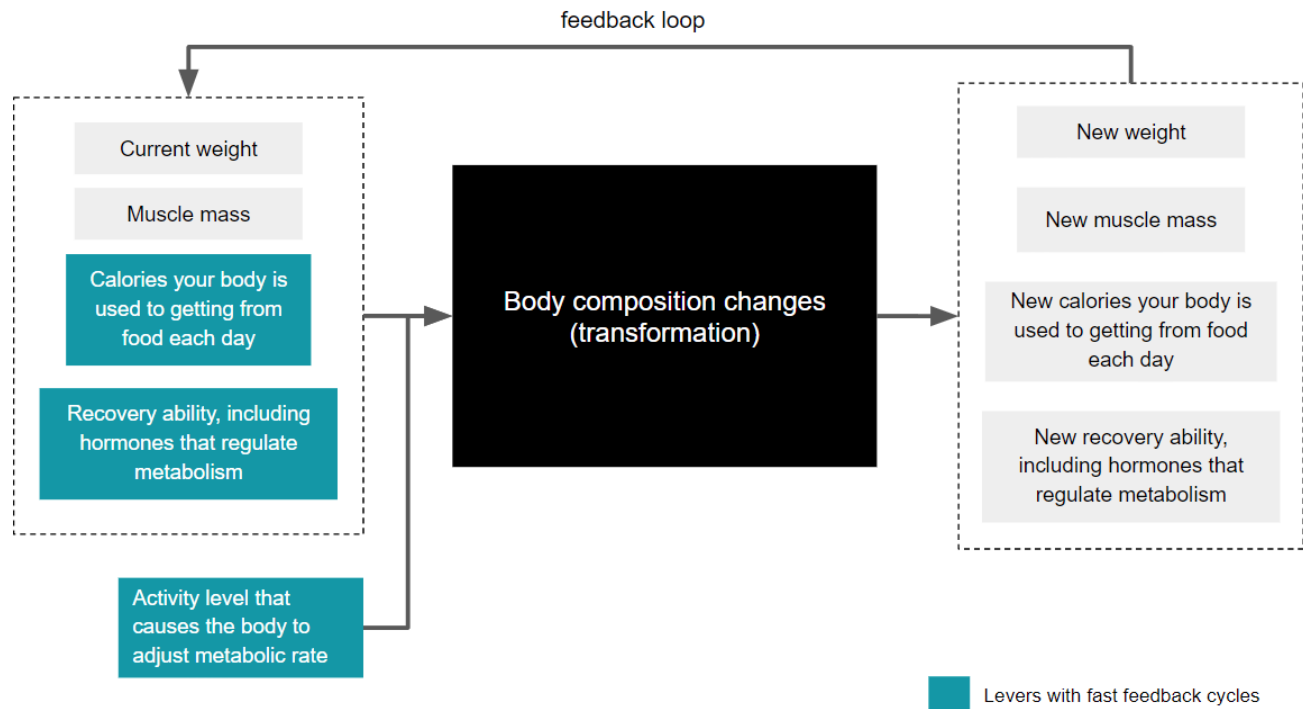
From countless observations, people into fitness and most people at the gym are all seriously over-exercising.

Often friends and coworkers think I have gifted genetics. I don't. I simply minimize mistakes and time wasted.

To get the highest return on our investment, we want to maximize the amount of calories used by regular bodily functions each day. This is what I will call metabolism because it's easier for the general population to understand, although it doesn't fit the strict scientific definition of metabolism.

For sake of simplicity, we will view metabolism as a black box that represents your body's caloric needs to function each day excluding calories used from conscious exercise.

Your metabolism naturally decreases as your weight drops. This we cannot control. But there are levers we *can* control. The following will change your diet game forever if you understand and apply everything correctly.



(body transformation as a system)

There are 2 factors that impact metabolism but I don't consider levers because they don't have fast feedback cycles. These are:

1. Current weight
2. Muscle mass

The good news is there are 3 other factors that impact metabolism with fast feedback cycles that I treat and use regularly as levers:

3. Calories your body is used to getting from food each day
4. Activity level that causes the body to adjust metabolic rate
5. Hormones that regulate metabolism

You can hit a fat loss plateau due to all three levers above. Now let's dive into each in detail.

### Plateau reason 1: plateaus from calories

Fat loss plateaus will happen when your body got used to the calories you're eating.

#### Calories need to be lower

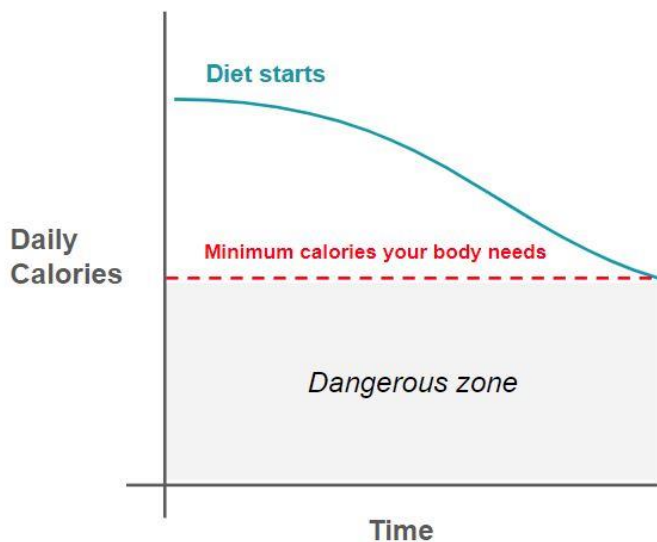
When you hit a plateau, cutting daily calories by another 100 is useful to shock the body into responding again. For example, drop from 2500 / day to 2400 / day.

However, **this should be used as a last resort to break through plateaus**. Think of it like a game where you have a limited amount of "cutting calories by 100" charged up powers to use.

#### Cutting calories too low too fast

To delay the unavoidable plateaus, **we must be eating the highest daily calories while still being in a caloric deficit with a healthy rate of fat loss**. This is because the body adapts to lower daily calories. If you cut from a maintenance of 3000 down to 2000 suddenly, you will

definitely lose fat but once you hit the next plateau, what will you do? You would only be able to afford cutting 100 calories a few times before hitting a lower bound in how low you can reduce calories. This limits how long your effective diet window is and thus makes you lose less fat than you could've in the same time.



Eating too few calories and starving yourself is extremely unhealthy. When the body doesn't get enough food intake, it starts to go into an extreme self-preservation mode. You also wouldn't be getting the bare minimum micronutrients you need from food.

When you lack micronutrients, often electrolyte levels are too low, such as magnesium, potassium, and sodium. This causes you to feel weak and have less energy, maybe even headaches. Even if you supplement, it's not as effective as absorbing them from food.

**Principle: each time you eat is an opportunity to enrich your body with nutrients to improve your physical and mental well-being**

We want to be eating the maximum we can during a fat loss phase. Therefore, you should cut calories at max 500 below maintenance to start. When you hit a plateau, assuming you tried everything else to break through the plateau, cut another 100 calories from your daily limit to shock the body into losing fat again, adhere to macros for 1-2 weeks and see if things change.

Example: maintenance is 2500 calories

Week	1	2	3	4	5	6	7	8
Daily calories	2000	2000	2000	1900	1900	1900	1900	1800
Lost weight at end of week?	yes	yes	no	yes	yes	yes	no	yes

Some people's bodies are highly reactive, some are not. You have to test, but the principle is universal. **You should be losing weight at the highest calories you can afford while still being in a deficit.**

#### Eat more to lose more

Often when you've been in a caloric deficit and losing fat, you'll hit a point where it's actually more productive to eat more and increase calories.

If you find it difficult to adhere to calorie goals, take a diet break for 2 weeks, where you would eat at maintenance and stop trying to lose fat during the diet break. During those 2 weeks, still track, so you know what your maintenance is after the diet break ends. Then when you start cutting again, start at maintenance minus 500. Diet breaks help you physically and mentally continue dieting.



Signs of calories being too low include:

- Headaches
- Fast heart beats
- Weak voice
- Shorter breaths
- General weakness and soreness in body that makes non-exercise activities like moving around and walking much harder than you remembered
- Taking longer to recover from strength training workouts than you remembered
- Insomnia, either cannot sleep or waking up early (provided it's not due to too much caffeine or stress and anxiety or other factors)
- Legs feel heavy
- Desire to eat a lot of food or thinking about food in ways that you didn't before

If your calories are too low, you might experience a combination of the above.

If you've been eating extremely low calories for a prolonged period of time (anything less than your maintenance calculated from [Focus Goal 1: Be in caloric deficit and adhere to Macros](#) minus 500 for 2 or more months), your metabolism is probably damaged. A refeed and reverse dieting will help heal your metabolism.

### What is a refeed

A refeed is a day where you spike carb intake while keeping fat and protein the same as the macros you're adhering to. High amount of carbs will spike your insulin levels, which is needed for fat loss. Be careful listening to influencers online pointing to insulin as a problem. It's not. The problem is when you eat way too many calories (especially processed foods low in fiber) consistently that causes insulin resistance. Insulin itself is literally one of the most important hormones for fat loss. Bodybuilders sometimes inject insulin, which I'm against.

Spiking insulin is needed for healthy thyroid function, specifically for conversion of T4 to T3 thyroid hormones. The thyroid gland produces critical hormones that regulate the body's metabolic rate, and controls heart, muscle, brain, bone, and digestive functions.

I treat refeed days like a controlled cheat day. It must still be tracked unless you want to risk ruining days or weeks of effort. Generally, on a refeed day you will increase fat too since rarely can you find foods that don't have fat. That said, fat should be no higher than 100g and you can lower your protein to make more room for carbs, but no lower than 100g of protein. To know how many calories you can consume on a refeed day takes experimentation but a good starting point is your maintenance plus 500 calories, which should be very enjoyable, especially if you strategically fast until large meals. I would also recommend you maximize the opportunity of the refeed day by strength training harder and longer (no need to exceed 60 min) the day after because you will have a lot of stored up energy to use.

The leaner you become, the more often you need refeeds. At 12% I needed 1 weekly refeed. At 10% and lower I needed double consecutive refeeds which I use Saturday and Sundays for. This is the secret to remaining lean using a positive feedback loop that is very enjoyable. The most optimal system I developed for myself achieved 2000 calories / day on weekdays, 4000 on Saturdays and 3000 on Sundays and I was well < 10% with no cardio, 4 x 45 min workouts per week, and I was still in a caloric deficit and losing more fat. I had to stop because I was getting too cold from lacking bodyfat in the winter. Any lower would've been a path towards unhealthy.

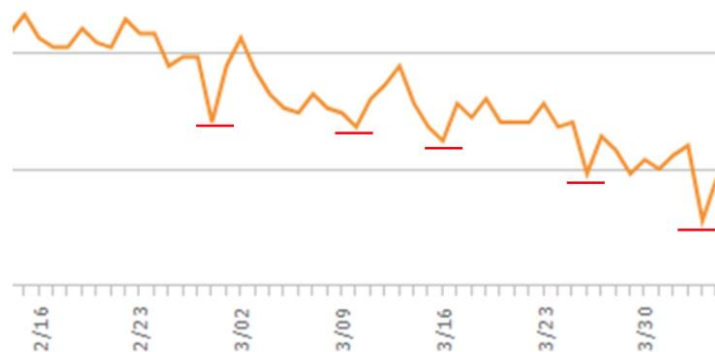
Once you have achieved 10% bodyfat, you literally need to try to not be fit anymore. I explain why this happens in detail near the end of this guide.

After a refeed day, for the next week, you should go back to eating at the macros you set right before the refeed and see if anything changes.

Day	1	2	3	4	5	6
Daily calories	3000	2000	2000	2000	2000	2000
Refeed day?	yes	no	no	no	no	no

You will likely gain some weight after the refeed day due to water retention, food digested etc, but don't stress about this. What's important is monitoring your weight in the next 5-7 days and see if you broke through the plateau and went lower than your weight the morning of the refeed.

If you're familiar with stock charts, **we are looking for lower lows.**

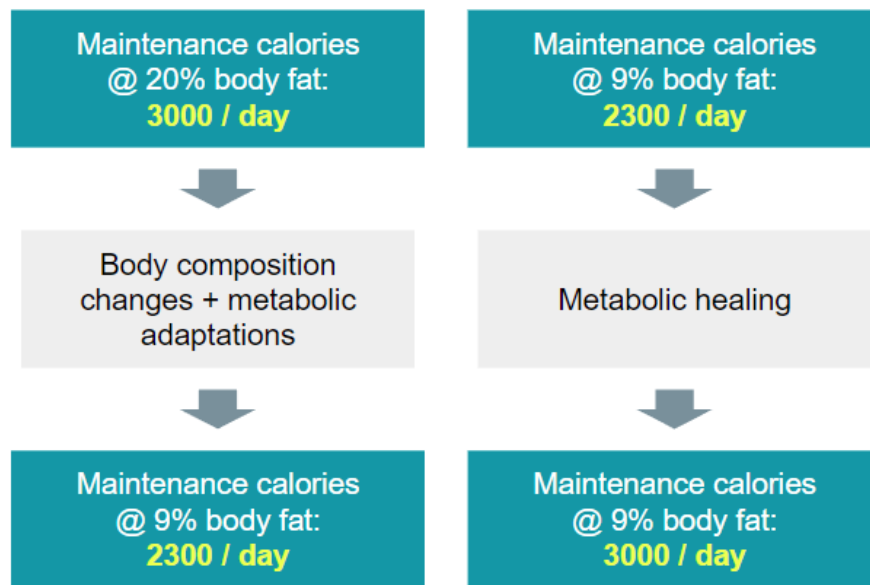


(example of my daily weight while in a deficit in Spring 2022)

### Reverse dieting

If a refeed did not kickstart fat loss again, as in your weight doesn't drop to a new lower low 5-7 days after the refeed, even though you feel you're in a deficit during that week and you don't feel you can eat any less, then you should try reverse dieting to methodically heal your metabolism over a period longer than just 1-2 refeed days.

**Principle: when you slowly increase calories, your body adapts and you gradually increase your true maintenance calories**



(this is how you eat insane amount of food to lose fat)

You would increase daily calories by 100, keep it consistent for a week, assessing each week to see if fat loss kickstarts again or if weight stays the same. Keep trying to increase daily calories by 100 per week until you start gaining weight. It's actually safer to do 50 calories at a time but most people find 100 easier to manage.

For example, assuming that fat loss plateau is reached even at 1500 calories (due to following some low calorie fad diet that got short term temporary results) where maintenance should've been 2500 according to a TDEE calculator (usually quite accurate), this means your true maintenance is close to 1500. Reverse dieting would look like this:

Week	1	2	3	4	5	6	7	8
Daily calories	1500	1600	1700	1800	1900	2000	2100	2200
Reverse diet week?	no	yes	yes	yes	yes	yes	yes	yes
Gained weight at end of week?	no	no	no	no	no	no	Yes (necessary to heal metabolism)	no

In the above example, if you didn't reverse diet and just bumped calories from 1500 to 2000 immediately, you will most likely gain fat because your body is still used to getting 1500 / day.

I've guided men who literally ate 1300-1500 calories per day and stopped losing fat whereas they should actually be eating 2300 and still losing fat. This is insane and a sad byproduct of the fitness industry causing people to undereat and overtrain.

If you're gaining weight (measured in a 7 day window) instead of no change, then you must be in a caloric surplus. You will need to figure out what this means. Either your maintenance became abnormally low or you're consuming a lot of calories that you haven't tracked. It's almost always because of hidden calories or you might not be truly honest with yourself or aware enough. For example, activity level might have changed.

If you're 100% certain you're honest with yourself and you truly are tracking all calories you consume, and you find that fat loss is stalled even though you are well below the maintenance you calculated, then you absolutely need to reverse diet by slowly eating more. **You might also have to accept gaining some fat to heal your metabolism so you can lose fat more effectively again and go even lower than your last plateau weight.** Sometimes you need to take one step back to go two steps forward. This is what professional coaches work with their clients on because the vast majority of people do not understand this concept and will often stubbornly refuse to accept it without coaching.

### **Principle: fat loss will never be linear for a prolonged period of time**

Eat more to lose fat? This is counterintuitive because the mass media only talks about cutting calories to lose fat. You would be surprised at how many people who are into fitness are undereating, this is especially true when you consume a lot of vegetables and fiber because when you track them in an app, unless your app has a function to filter out fiber from carbs and calories, you will see a number that's much higher than your actual daily caloric intake. For example, if you eat a lot of vegetables, the tracker might say 2000 calories but your body actually only got 1800 calories of real energy or less.

From my experience many people who are really into fitness are undereating because they don't realize they can eat more to lose fat more effectively.

To minimize unintentional fat gain, after each diet phase, **when you end the diet and start going into maintenance, you should always increase calories gradually by reverse dieting out of the caloric deficit into maintenance.** Often people immediately increase calories after they end a cutting phase but this is wasting the room you had to maximize your maintenance calories had you just slowly added calories.

For example:

Scenario 1: immediately go from 1900 to 2400 calories / day, now your maintenance is around 2400

Scenario 2: reverse diet from 1900 to 2000 calories / day, then add 100 increments at a time slowly. You might be able to end your maintenance at 2600.

### **Plateau reason 2: plateaus from hormone imbalances**

#### **Need to eat more fat**

Hormone levels make a big difference to fat loss, not to mention mood, sleep, and general physical and mental wellbeing, which all-together also impact fat loss.

Calories being too low causes hormone imbalances. Aside from that, another likely reason for hormone imbalance is fat intake being too low. As a man, you should not go below 40 grams of fat per day. Any lower will cause hormones to be out of balance.

For a woman, it's 30 grams of fat per day minimum.

#### **Need to reduce stress**

Minimizing stress automatically helps with fat loss. This is beyond stress eating. Even if you don't eat more, stress causes your body to not want to break down fat cells.

Optimizing for [Focus Goal 6: Recover well](#) will help with this.

### **Plateau reason 3: plateaus from activity level**

#### Too inactive

If your activity level dropped, two things will happen that impede fat loss:

1. Your body uses less energy than you previously anticipated
2. Your metabolism slows

You need to reduce calories to account for these.

#### Too active

When your activity level consistently exceeds your body's recovery ability for too long, your body will want to shut down to protect itself. This impedes your fat loss goals.

Use common sense to assess if you're over-exercising, only you would know. If you are, see the [Focus Goal 6: Recover well](#).



## Focus Goal 4: Minimize muscle loss

The more muscle mass you have, the more energy your body needs to keep you alive each day, therefore you can afford to eat more because your maintenance calories increased. Being able to eat more is an excellent thing because of the principle mentioned earlier in the guide, worth repeating:

**Principle: each time you eat is an opportunity to enrich your body with nutrients to improve your physical and mental well-being**

Since this guide is not about muscle building, I'm going to assume you are already doing strength training consistently each week to build muscle, possibly using [Binary Strength Complete Functional Workout Guide](#) or whatever training style you enjoy.

When you lose fat, you will lose a little bit of muscle because your body is in a state of caloric deficit, meaning it needs to get more energy than from the food you consume. It has nowhere else to get it from except from breaking down your own cells, including both fat and muscle cells.

We want the vast majority to come from fat cells. Otherwise, you will just look and be weaker.

During a caloric deficit, the only way to optimize for minimum breakdown of muscle cells and maximum breakdown of fat cells is to:

1. Strength train to force your body to want to keep the muscles you have and ideally build more.
2. Eat enough protein (ideal amount already outlined in [Focus Goal 1: Be in a caloric deficit and adhere to macros](#)) to fuel muscle repair and growth since muscle breakdown will happen and we can't predict exactly when.
3. If you use a lot of energy doing cardio, like long bike rides, you will most certainly breakdown muscle. You can minimize the amount of muscle loss by frequently consuming easy to digest carbs throughout your cardio sessions. Try anything high on the glycemic index like fruits or even processed carbs like candy.

It's possible to be in a caloric deficit, losing fat each week, and actually still gain more muscle at the same time. This is called **body re-composition**. Genetics will determine how well you can re-comp. The only way to know is to just consistently strength train, follow the right macros, and be in a caloric deficit for a few months and see what happens. If you got stronger, are able to do more reps or more difficult exercises with higher intensity, it means you gained muscle. If you achieved that and you also appear leaner due to lower bodyfat, it means you successfully re-comped.

I rely on re-comp throughout the year.

## Focus Goal 5: Maximize non-exercise activities

When you think someone has an easy time being at a low bodyfat % even when their exercise levels are the same as yours, similar height, and they eat nearly identical types of food and volume of food as you (maybe even more), you might be tempted to think they're born that way and attribute it to genetics.

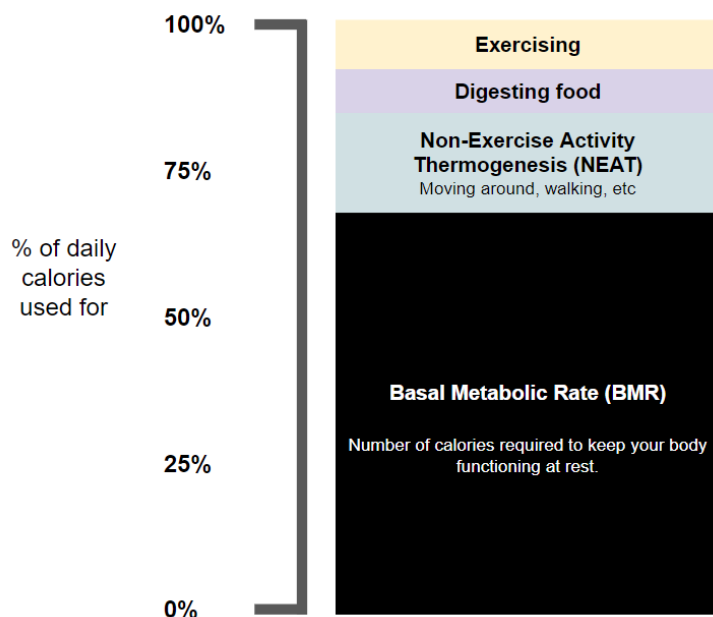
The reality is usually because of two reasons:

1. Your daily activity levels are much lower than theirs
2. Your regular bodily functions are severely hindered somehow causing your body to not use energy when it should

The second reason makes the most difference and is key to how I stay shredded, this is covered in the next focus goal. This section will only focus on the first reason.

### What is NEAT

NEAT is Non-Exercise Activity Thermogenesis. This is energy you use when you're moving around but not consciously exercising. Daily activity levels make a much larger difference than modern humans realize. This is largely due to humans forgetting what life was like before the technological revolution.



The more active you are, the more energy you consume. Specific foods or exercises don't burn fat. You do.

**Principle: the only thing that burns fat is your body**

Our bodies were not meant to be working in front of a computer all day.

This is why I almost always walk 30-60 minutes per day. Aside from the mental benefits, it helps expend more energy, helps with digestion, and best of all speeds up recovery from exercises you performed in prior days due to increased blood flow and movement that your body was designed for. If I can't walk, I'll replace it with casual indoor cycling.

Even when strength training, in between sets, I walk around instead of staying stationary.

NEAT activities should be low impact to prevent them from affecting the recovery you need from your actual exercises, whether it's strength training or cardio. This leads into the final focus goal.

# Focus Goal 6: Recover well

**Principle: your body doesn't change when you exercise, it changes when it recovers**

A host of complex processes take place during recovery, including various cellular repair, breaking down of fat cells, and generation of muscle cells.

It's possible to do all the right things, exercise, eat well, but for some reason your body just won't respond and refuses to change. This can happen in many ways:

1. Physically drained
2. Mentally stressed out
3. Spiritually unwell / disconnected

## Overtraining – too much stress on body

Signs of over-training is basically the same as undereating, which includes:

- Headaches
- Fast heart beats
- Weak voice
- Shorter breaths
- General weakness and soreness in body that makes non-exercise activities like moving around and walking much harder than you remembered
- Taking longer to recover from strength training workouts than you remembered
- Insomnia, either cannot sleep or waking up early (provided it's not due to too much caffeine or stress and anxiety or other factors)
- Legs feel heavy

If you think you are over-training, you probably need a de-load week, where you're still active but just less active. You can reduce the intensity and/or duration of your exercises by 50% for that week and re-assess. You might need two weeks. You have to test it out.

## Mentally drained – too much stress on mind

Minimizing stress automatically helps with fat loss. This is beyond stress eating. Even if you don't eat more under stress, stress causes your body to not want to break down fat cells. You need to find your own methods to reduce stress that work for you.

Fight or flight responses affect your hormones, especially HGH (Human Growth Hormones).

HGH plays a major role in your body composition by regulating your metabolism, how effectively you burn fat, and how you recover from workouts to build and retain muscle. Increasing HGH makes a dramatic difference to how fast you see results for body transformations.

HGH is naturally increased when you:

- strength train at high intensity
- reduce bodyfat
- minimize sugar

The one thing that HGH is most boosted by is **high quality sleep**, especially if you can sleep by 10pm (studies show HGH production is highest from 10pm-12am). Sleep is when the vast majority of

hormone production happen, not only limited to HGH, it includes testosterone, thyroid hormones regulating metabolism, energy, mood, and more. Sleep is when a lot of fat loss happens. **Optimizing sleep is by far one of the easiest ways to lose fat.**

Here's a golden nugget that helps break through plateaus: if you are not asleep by 11pm, do everything you can to sleep before 11pm for a week. I recommend using melatonin pills. You might break through a fat loss plateau during or right after that week. You might also find you suddenly need less sleep than before. You maximize your resting metabolic rate when you're in tune with your own personal circadian rhythm, which generally means sleeping much earlier than people are used to. There is a reason why waking up very early gives you a special alertness that lasts throughout the day. Great book on this by one of the world's leading authorities on sleep: [Why We Sleep](#).

### Spiritually unwell / disconnected – too detached from spiritual source

In the beginning of the guide, I mentioned to **treat everything as my own opinions**. Please read the following with that in mind.

When we're spiritually well, our bodies respond, recover, and just function better overall. This allows our bodies to change much faster and more easily given that we signal it to change via stimulus and support the change via nourishment. We feel truly alive, conscious, and connected to all existence. We feel like we really love life even when circumstances are objectively terrible.

I wrote this guide with spiritual elements derived from my own experiences that I cannot deny, all of which isn't new and already well written about by spiritual teachers throughout thousands of years.

I believe the form our body is taking in this very moment is just a reflection of our true being as of right now. This being is changeable. The closer we are spiritually to our true potential, which is measured by the distance we are from the source of all existence, the more easily our physical body can transform to its ultimate form, provided that we give it the signal to transform and the nourishment to transmute physical matter.

I believe the reason why we see ourselves in the mirror and don't love what we see sometimes is often because we don't feel it represents who we truly are. But sometimes, we don't even know who we truly are. Our mind creates an ego, a sense of self, that's extremely disconnected from the true self, which very few humans can see because most people don't know that we are not our body nor our mind, we have a spirit that is moldable too just like our bodies and mind.

Not everyone's true self manifests into the body of a warrior. That said, if you do have an instinct that you should look like a warrior, then I believe you should keep pursuing this.

I believe unless we have genetic predisposition to mental illnesses, spiritual well-being (or complete lack of spirituality) is associated to anxiety, depression, and other classified mental illnesses in DSM manuals (Diagnostic And Statistical Manual Of Mental Disorders). Emotions felt from those states are not us. We are our spirit. We can separate who we are from what we're experiencing. Overtime we can learn to say "I'm experiencing grief" instead of "I'm sad". For parents, this is the same concept of why it's always better to say a child is being naughty vs being a "bad boy". No child is a bad child. Most adults are just larger children. Despite our deep flaws, no adult is a bad person.

When we've awoken and gained true consciousness, we not only have mastery over suffering but our body also reacts so optimally that reaching peak physical form isn't that difficult. When we lose this consciousness, become under stress and live in the past or future, and no longer live in the only place

that life happens in, now, our body stops responding optimally. We will find that the fat won't come off and muscle won't build as easily, even though we're doing everything right.

The way I achieve a lean and muscular physique without extreme effort is by optimizing for my spiritual well-being first. I had a hypothesis that this would be the easiest way after dropping 15 pounds in 15 days, 1 pound a day for 15 days straight by eating significantly more and sleeping better immediately after I left a highly toxic relationship that was killing my spirit. I didn't exercise during those 15 days.

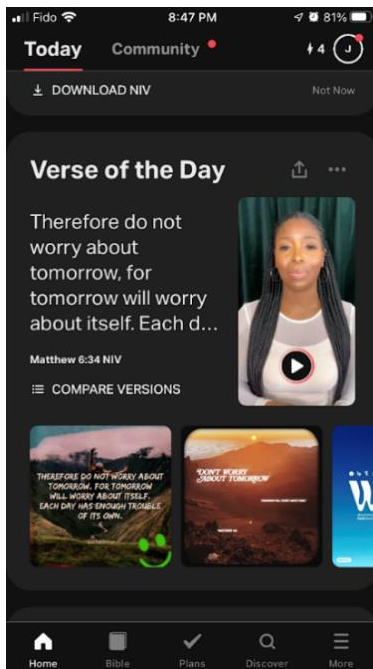
Throughout the past 3 years, this hypothesis has been validated to be true in my own life multiple times because with everything else being almost exactly identical (I track everything I eat and have a consistent routine), as long as my spiritual connection to the source of life is affected, my body changes negatively, even when I eat well and exercise, and do exactly the same things as I did before.

Personally, I found that the clearest sign of being spiritually well is massive increase in creativity because I believe true creativity with original thought originates from the source of all life.

If you're serious about exploring your own spirit, I recommend these:

Book	Comment
<a href="#">Think Like a Monk: Train Your Mind for Peace and Purpose Every Day</a>	Very accessible to anyone. Super surprised how relatable this is to my own experiences. I consciously lived like a modern monk for a couple years, that's probably why.
<a href="#">The Power of Now: A Guide to Spiritual Enlightenment</a>	Still quite accessible but starts to go deeper.
<a href="#">There is A God: How the World's Most Notorious Atheist Changed His Mind</a>	Requires serious interest in exploring the existence of a God.
<a href="#">The Bible Project YouTube Channel</a>	I personally reached the same conclusion as Jordan B. Peterson: this is the best thing we got as a blueprint to human life. A masterpiece that transcends time if you understand it.
<a href="#">The Message: The Bible in Contemporary Language</a>	<p>I suggest only reading this if you truly believe the two most important things to life is 1) finding out if absolute truth exists or not 2) facing the fear of your own inevitable death. You cannot know how to truly live if you don't face your own death boldly.</p> <p>You'll need to attend a church to learn best. See this great video on the <a href="#">dark truth of Megachurches</a> and be aware that genuine churches are rarely in the spotlight. This is <a href="#">my church</a>.</p> <p>The three largest world religions: Christianity, Judaism, Islam all share similar roots. This deserves investigation and due diligence. You owe it to yourself.</p>





When my spirit is supercharged, I've experienced a few times where I literally wake up in cold and dark mornings of winter and feel confused because it smells and feels like a mix of spring or summer.

The most important part of my morning is going through a verse of day using the [free Bible app by YouVersion](#) while enjoying the first cup of coffee, thinking, and then praying. Regardless of how chaotic the world or life is every day, the peace of a dialogue with God in the quietness of morning cannot be explained, surpassing understanding.

Personally, I believe the God written about in the Bible *is* God after due diligence from these dimensions: logic, history, scientific discoveries, unexplainable alignment to history and science in the Bible that shouldn't be possible, and my own spiritual experiences. Regardless of which faith I studied, I see a clear pattern: **the ultimate form of life is selfless service** founded on unconditional love. It's when people reject, invalidate, and wish the worst for you, but you're willing to die for them. In this flawed world, even parents cannot practice unconditional love most of the time. But this spiritual level is worth pursuing.

*"And now these three remain: faith, hope and love. But the greatest of these is love."*

*~ 1<sup>st</sup> Corinthians 13:13*

In our time, we're taught to look up to men who made great impact in terms of innovation and wealth generation. The one thing that most people don't realize is often these men have accomplished incredible things due to their drive that originates from deep insecurities. Some of them do admit this. There aren't that many tech CEOs with strong character who truly want to make a positive impact to humanity. This is why there are only a handful of CEOs I'd work for. To me, life's too short to be working for anyone I don't align with. No amount of money is worth the trade off to me.

Like Nassim Nicholas Taleb, author of *Skin in the Game*, I also believe that things and people that stand the test of time deserve our utmost respect and are worth studying. I believe the greatest of men are those who were known for selfless service and sacrifice. Who are they?

# Putting it all together: example protocol

This is just for your own reference. If you understood this guide, you should be able to create a v0.1 diet protocol to lose fat for yourself and adjust as you go. It's more important to take action and get started than trying to aim for a perfect start.

## Example profile

- Male, 35, 180cm, 200 lbs
- Tech worker with sedentary job but with some awareness of health and fitness
- Works out 2 times / week
- Does cardio 2 times / week for the purpose of losing fat
- Used <https://tdeecalculator.net/> to calculate calories and macros for dieting down
  - assume maintenance is 2300 calories / day
  - set initial fat loss calories to 2300 – 500 calories / day = 1800 calories / day

## Protocol to peak physical state

try {

- Stop all cardio unless you really enjoy the activity regardless of fat loss goals
- Start strength training consistently at extremely high intensity by following a routine, either using [Binary Strength Complete Functional Training Workout Guide](#) or other ways. Maximize volume of work that fits your schedule, lifestyle, and body's recovery capability.
- Start simultaneous execution ([Focus Goal #1-6](#))

} catch (error e) {

switch (e) {

case (feel hungry and want to eat)

Drink 1-2 cups of water first, wait, see if hunger subsides. If you cannot take it anymore, consider eating but must adhere to macros of the day.

case (fat loss plateau reached)

Break plateau using [this section of guide](#).

case (you over-ate significantly one day)

Treat that day as a refeed day and skip your next planned refeed day. Stop any negative self-talk and immediately go back to adhering to macros the next day. **Do not cut calories below the previously set macros before over-eating to compensate for your guilt.** Ideally you don't feel guilty, accept your own actions, take accountability, **do not repeat it again that week**, focus on productive next steps. This prevents further over-eating that will inevitably occur when calories are too low.

Case (you over-ate significantly multiple days in a week)

On the next no over-eating day, fast and drink lots of water. Post-pone eating as long as possible and eat the minimal amount of food where you still feel ok. Focus on protein and carbs, minimal fat, because likely your over-eating days gave your body enough fat that it needs for a while. Repeat for # days equal to the number of days you over-ate.

}

}

Example 4-month (16 weeks) realistic view of what it might look like

Week	1	2	3	4
True maintenance (unknowable in advance)	2300	2300	2300	2300
Daily calories	1800	1800	1800	1800
Activity level change	Started strength training routine	-	-	-
Weight compared to last week	-5 (-3 from initial water weight loss)	-1.5	-1.5	+1 (gained weight from mentally breaking and over eating then realized body adapted to strength training. Need to eat more otherwise too hungry.

Week	5	6	7	8
True maintenance (unknowable in advance)	2500	2500	2400	2300
Daily calories	2000	2000	2000	2000
Activity level change	-	-	-	-
Weight compared to last week	-1	-1	-0.8	-0.6

Week	9	10	11	12
True maintenance (unknowable in advance)	2250	2000	2000	2150 (metabolism healed from refeed)
Daily calories	2000	2000	1900	1900
Activity level change	-	-	-	-
Weight compared to last week	-0.5	0 (plateaued)	-0.5 (plateau broken via <a href="#">methods such as refeed day</a> )	-0.5

Week	13	14	15	16
True maintenance (unknowable in advance)	2300 (metabolism healed from refeed)	2300	2300	2300
Daily calories	1900	1900	1900	1900

Activity level change	-	-	-	-
Weight compared to last week	-0.8	-0.8	-0.8	-0.8

In the above example, 15.1 lbs was lost in 2 months, which you can be certain came almost exclusively from fat. This is very good. The sample profile started at 200 and is now down to 184.9. This is much better than a sudden 20 lb drop where significant muscle is also lost, along with greater water loss. Losing weight too quickly is dangerous and unhealthy.

In the end, the weight itself isn't nearly as important as mastery over body composition to the point where you know exactly what to do to sculpt whatever body composition you'd like whenever you like.

You would repeat the exact same process to go from 184.9 to 170, but expect that to take 2-3x as long as going from 200 – 184.9 because you'll hit plateaus faster and spend time breaking through them.

For example, we ended at a true maintenance of 2300. As you progress, this will drop to 2000 again but faster than last time. You'll have to repeat the same process. You might even take entire diet breaks for 2-4 weeks at a time to eat at maintenance and make sure your weight does not change during that period. This helps you physically (delay plateaus due to metabolic adaptation) and psychologically continue dieting down.

This is the exact protocol you would repeat that works for dropping to any bodyfat %.

Going lower than 8% puts the body under too much stress that in my opinion isn't healthy and has no real benefit. You would use the same processes described in this guide. Here's a [great video about how to do it](#).

## How it should feel

**Principle: you should not be constantly dieting (be in a caloric deficit) for the entire year**

Throughout the year, you should be alternating between phases of dieting, maintenance, or even surplus (gain weight consciously).

If you kept trying to diet all the time then you would damage your metabolism as described earlier in the guide. This is a very common mistake people into fitness are making.

Here's what my 2022 looks like:

Months	Phase
Jan, Feb	Surplus
Mar, Apr, May, Jun	Diet (with diet breaks)
July, Aug, Sept	Maintain
Oct, Nov	Diet
Dec	Maintain / surplus

When dieting you will feel physically weaker at times but it actually gives you tremendous mental alertness and energy. This is because being in a caloric deficit has similar mental benefits as fasting. You would become a lot more aware and conscious because you already have to apply that mindset about calorie intake.

# Debugging guide

## You hit a weight loss plateau

Assuming you're doing all the right things from the 5 focus goals, but you suddenly reached a point where your weight isn't changing and you don't know why. Here's how to debug:

### 1. You should reduce your calories

When you're in a calorie deficit, you should feel a bit more tired than before dieting because your body doesn't have the energy it needs. If you're feeling great and full of energy in a fat loss phase aiming for caloric deficit, then your calories can be lower. Cut 100 from your daily calories and keep this for 1-2 weeks and re-assess to see if you lose weight again.

### 2. You should increase your calories

If you're feeling too tired that even walking seems difficult, where your legs are heavy, feel lightheaded, chances are you need a refeed. Do a refeed day by increasing calories by 500 from maintenance for a day, filling it mostly with carbs, keeping fats below 100g and protein above 100g. The next day, go back to dieting following your macros.

If your weight is still dropping at a healthy rate where muscle is preserved, just keep doing what you're doing. Don't make changes.

Bodyfat %	Healthy rate of fat loss / week to minimize muscle loss
More than 12%	0.5-1% of your bodyweight
10-12%	0.25 - 0.5% of your bodyweight
10% or less	0 - 0.25% of your bodyweight

If you're dropping faster than the healthy rate, you have to increase calories by a bit. You can do the math to figure out how much to increase calories by to hit the target of a healthy rate.

For example, if you weigh 200 lbs and lost 3lbs last week, you should increase calories this week by 3500 (calories per 1 pound of fat) to make sure this week's fat loss is around 2lb (1% bodyweight) max. Hence increasing daily calories by  $3500 / 7 = 500$ .

An exception to this is when this happens: you're in a caloric deficit but your weight stayed the same and your body fat % didn't seem to change for 2-3 weeks, then suddenly after breaking through that plateau one day, that week you lose 2% of your bodyweight. This is normal.

### 3. You can't recover properly to lose fat

You might be over-training. Keep everything the same, but reduce intensity and duration of all exercises you're doing by 50% for 1 week and re-assess to see if you lose weight again.

## You're constipated

When dieting, you might experience constipation due to:

1. Not enough fiber
  - MyFitnessPal or other trackers can tell you how many grams of fiber you eat in a day. It's recommended to have 40g of fiber / day for men.
2. Too much fiber
  - <https://www.healthline.com/health/food-nutrition/too-much-fiber#fiber-sources>
3. Too much protein
  - Protein is harder to digest. You don't need more than 1g / lb of bodyweight in protein.
4. Carbs or fats are too low
  - Carbs and fats help with digestion. Consider increasing carbs and fats but still adhering to macros in [Focus Goal 1: Be in a caloric deficit and adhere to macros](#)

When you're very lean, say 12% or below, you will definitely experience constipation from time to time. It's a commonly accepted byproduct of being very lean.

### You have insomnia

This is normal especially starting around 12% bodyfat. Things you can try:

1. You could be lacking carbs in the evening. Carbs help with sleep. Try eating more carbs in the evening while adhering to your daily macros.
2. Try melatonin.

## **Bonus for fun: photoshoot protocol**

Do the following 1 week before shoot, assume shoot is Saturday:

### **Carb Manipulation to Reduce Water Weight**

1. Keep protein the same as usual
2. Sat (first day of protocol) and Sun: drop carbs to 25% of your normal intake eg 75g / day if you normally ate 300g / day
3. Mon and Tues: drop carbs by another 10g / day
4. Friday: carb load, close to 300% of your regular carb intake, eg eat 800g carbs if you normally ate 300g / day – this helps make sure your muscles look fuller
  - When you feel bloated, stop, but if you feel you can go higher, do it
  - Start with fruit to replenish liver glycogen, then candy to replenish muscle glycogen, then complex carbs after

### **Water intake**

- Increase water intake dramatically during the protocol
- On Friday only drink when thirsty

### **Glycogen depletion workouts**

- Full body high intensity workouts every day
- High reps (15-20 / set)
- Minimal rest times between sets (30-60 sec)
- These workouts are purely to empty glycogen so you should avoid muscle failure. Don't push to 100% capacity, just do 80%

### **Day of Shoot**



- Day of shoot don't drink water
- Right before shoot, have something with carbs, fat, and sodium like chocolate bar
- Do some pump up sets before shoot

## Beyond the Focus Goals

### Fad Diets

Ignorance is ok. Dishonesty is not. It's fine to sell but not when knowingly causing harm.

Myth	Claim	Reality
Single macro nutrient group restricted diets like Keto, low carb, carnivore.	Cutting out carbs causes more fat loss vs eating carbs, even if calories are kept the same.	<p>The body and brain's primary fuel source is carbs. At the time of writing, the topic of Ketones is the main scam running successfully. <b>There is no scientific evidence that high levels of ketones enhance fat loss.</b> High ketone levels are used for therapeutic purposes.</p> <p>These types of diets tend to create strong cravings and overeating. This is counterproductive to fat loss long term despite any initial water weight loss.</p> <p>Every gram of carb you eat stores about 3-4 grams of water. You can definitely lose some additional water weight by not eating carbs, just not fat. <b>Any fat loss is caused by being in a caloric deficit.</b></p>
Time restricted diets like intermittent fasting, One Meal a Day (OMAD).	Limiting eating windows causes more fat loss vs eating spaced out meals even if calories are kept the same.	<p>Fasting does help people control appetite but <b>any fat loss is caused by being in a caloric deficit.</b> Fasting does not contribute significantly to fat loss processes. Your body is constantly adding and using bodyfat throughout the day. You can rarely know when to time anything to affect it.</p> <p>Going long periods without protein also makes you miss out on muscle protein synthesis opportunities to build muscle throughout the day. You would be wasting a lot of your strength training efforts since the body can only process 30-60 grams of protein per meal.</p>

Fad diets tend to lead to diet failure because it's hard to adhere to long term as part of your lifestyle, especially when you have a family. Cutting out carbs is worse because the moment you eat carbs again your body will store it and crave more. There will always be fad diets, myths, and scams. Often, they're recycled from the past because the same well-tested scams can be repeated on newer generations, as long as enough time has passed for the previous generation's realization of the scam to fade.

There will be people who seem nice, soft spoken, genuine, even "doctors", but underneath they're either ignorant or liars. They are either consciously or subconsciously taking advantage of human cognitive biases and preying on two of several fundamental human flaws:

1. People tend to believe what they want to hear

2. People tend to be lazy (System 1 Thinking from Daniel Kahneman's "[Thinking, Fast and Slow](#)")

The only way to defeat the constant presence of false narratives and our own flaws is to wake up, become conscious, and develop stronger critical thinking skills to view things from first principles.

## Fasting

Fasting is prolonged periods without intaking any food.

Despite the extreme popularity of intermittent fasting and the number of influencers promoting it, there's limited scientific evidence that fasting plays a major role in fat loss. When daily calories are kept the same, fasting vs not fasting has no difference for fat loss biologically.

That said, fasting has spiritual and mental benefits as it helps you gain more focus and creativity. There's a reason why almost all major world religions and spiritual practices believe food is directly linked to spirituality and have fasting as an important spiritual practice since thousands of years ago.

Buddhism, Christianity, Islam, Judaism all conclude that what you eat and how you eat impacts not only your body, but also your mind (thoughts), and spirit (connection to God).

Fasting does help increase growth hormones that helps your body use fat for fuel. However, the delta compared to being in a caloric deficit is tiny. Being in a caloric deficit is already very similar to fasting because you are technically fasting (not eating) for prolonged periods throughout the day where your body already used up all the energy you last consumed. This starts to be most noticeable when you're deep into a fat loss phase and reached around 12% bodyfat. You will gain an extreme mental alertness, boosting consciousness and creativity because you're so attuned with your own body's signals.

Fasting might also work well for certain people based on their psychology. I believe intermittent fasting or OMAD (one meal a day) are good for people who have not controlled their desire to consume or don't want to change their consumption mindset. If you must have a giant meal every day and don't enjoy portion control, this is probably better for you but you must stick to daily calorie limits.

When fasting, to hit daily calorie needs, you'll end up eating large meals, which feeds the psychological cycle of consumption. My personal take is dieting through calorie restriction and portion control is the superior method because it helps train you to be less of a consumer and more of a producer. It helps you be more grateful and see the best in what little you do have. It also helps you realize just how little you actually need. Everything in your life will improve after adopting this mindset.

## Food choices

What you enjoy eating is very personal so only you can determine details of a diet that works for you that optimizes for all the goals in this guide. This is why this guide has no recipes.

Remember, macros change bodies. This means it doesn't matter what food you eat, if your macros are set properly in [Focus Goal 1: Be in caloric deficit and adhere to Macros](#) you can eat anything and lose fat. There are no good or bad foods in terms of fat gain or fat loss. Any time you hear about good or bad foods for fat loss, it's either a lie or at minimum deceptive and preying on your flaw of wanting to believe in simple explanations.

Your body will process any food in the same way to transform them into various types of chemicals your body uses. However, obviously there are differences between food choices. I won't go into the health impacts since you need to make your own decisions on what you consider healthy or not healthy. I will only talk about their impact to fat loss.

Food choice	Impact to fat loss
Processed food, especially sugar.	Easier to overeat via negative feedback loops: <ul style="list-style-type: none"><li>• Get physically hungrier more easily because sugar levels are less stable</li><li>• Worse mood due to unhealthy gut bacteria produced by eating sugar, leading to psychological overeating</li><li>• Sugar is a drug, therefore there is an addiction cycle that is difficult to get out of once started</li><li>• Processed foods are also hard to track accurately because the labels disclosing calories and macros have huge variances that are acceptable by FDA</li></ul>
Eating out at places <i>without</i> accurate macros disclosed, such as restaurants.	No idea how to track calories. You will need to estimate or just accept the inaccuracy that day.
Eating out at places with accurate macros disclosed, such as McDonalds.	Extremely accurate macros you can look up and insert into your daily food log such as "20 McNuggets".
Cooking complex dishes.	Massive hassle to track macros.
Creating recipes that you love and standardizing them.	Can easily add recipes to your tracker like MyFitnessPal and track macros.
Eating natural foods that appear in nature.	Extremely easy to adhere to macros because they're usually comprised of either mainly single macros like: carbs (sweet potatoes), fats (oil), protein (chicken breast, lean fish), or 2 macros max: carbs + fat (nuts), fat + protein (dark meat, red meat, eggs), carb + protein (beans)  You can easily select foods to add a single macro without messing up another macro throughout the day.
High volume foods low in calories but very filling, often high in fiber.	Easier to adhere to macros because you're full and don't want to eat more.
Vegetables	Great nutrients and fiber to help you physically and mentally when dieting. Better gut bacteria. Better mood. Significantly easier appetite control.

## Fruits

Eating fruits high in sugar like grapes, mango, ripe bananas etc is not too far from eating sugar. They're easy to overeat since they are calorically dense.

Eating low calorie nutrient dense fruits like berries and melons is easiest for fat loss.

Fruits are far less important than vegetables but has similar benefits. People often get fat because of eating too many calories from fruits thinking that it's healthy.

When dieting, the key is you must always eat what you enjoy or at least do not dislike. If you eat anything you dislike, you will not be able to adhere to macros long term. Dieting should feel hard but not that hard. Life is too short to waste away eating anything you dislike.

## How I personally eat

How we eat will change as we age and as our mindset changes. In the last year or so, many people in my social circle of family, friends, and co-workers got cancer. These are not just people in old age. They are 30 to 60 year-olds. How I eat now is already different from the time I started Binary Strength.

Nowadays, 90-95% of the time I'm eating high quality natural minimally processed foods. 5-10% of the time, usually on weekends, I'll eat foods that most likely will cause diabetes and cancer when overeaten. Hence, I don't overeat them. Surprisingly I'm saving a lot of money by eating this way. It's incredible how much more unnatural foods cost. Their price / volume ratio is too damn high.

Assuming you care about longevity and health, I believe what's most important is ensuring your body can heal itself. We can't control or take on the powerful food industry and their desire for profit and growth, but we *can* control our own choices. I choose to optimize for defense because the body has incredible self-healing abilities that we just need to maintain.

By now it's clear that minimizing stress, being physically, mentally, spiritually well, and eating plant-based foods from the earth is what forms the optimal defense against diseases that lead to pre-mature death and illnesses like cancer. Enough robust studies have already been shared widely on this. I might become vegan or vegetarian one day, but for now, I still enjoy eating meat too much to give it up completely. I don't eat red meat though, simply because they don't taste special to me compared to chicken or fish. I don't miss them but I'll eat them socially.

## Timing of food intake

Timing of meals is a concept that is founded on the human cognitive flaw of wanting control and believing we can tell the future. Our brains are constantly trying to predict. Just like how people like to believe they are good at timing the financial market. There is something very flawed in the human mind at the root of these feedback loops that never end.

This is why the topic of timing food continuously gets attention. The truth is **your body is constantly storing fat and burning fat**. You can't time it. What matters are the same principles and focus goals mentioned in this guide. That said, timing of meals does affect a key factor for fat loss: **appetite**.

You have to find a way to time your meals that allow you to easily optimize for [Focus Goal 1: Be in caloric deficit and adhere to Macros](#). Everyone's appetite is different. You have to test it out for yourself. For example, my appetite is best controlled throughout the day when I eat something every 4 hours or so and when my breakfast is small.

## Hidden calories

### Cooking oil

Cooking oil need to be used very consciously because you can easily consume literally **hundreds of calories** if you're not measuring meticulously. I'm too lazy so I don't cook with oil, only Pam.

### Liquid calories

Many beverages have calories, such as beer. Even if they're low-calorie drinks, they can easily add up if you don't track. I'm too lazy so I don't drink calories. I'll have a beer or two at the beach though.

Diet sodas do not cause cancer more easily than regular sodas. There are plenty of studies on this. Sugar industry wants you to believe otherwise. There aren't that many substances that cause cancer more easily than sugar. I enjoy diet soda as it helps suppress appetite.

### Sugar

Sugar is a drug and it's everywhere. I don't have sugar in my home. I treat it as a drug that I use consciously from time to time.

### Fatty foods like avocado that actually have very little benefit

Avocados are nearly pure fat. Enough studies show that it's not good for you. The cartels that ultimately benefit from you buying avocados fund plenty of marketing and research promoting avocados.

### Portions

If you diligently tracked calories and weighed your food even for a week you will realize how much you're overeating. A portion of 15g of peanut butter is about 100 calories but most people do not have the visual memory to know what 15g of peanut butter looks like. They can easily add an extra 100 calories that they didn't realize. Compound this throughout the day, week, months, and that's how fat is stored up from excess calories. Ever wonder how in the world can someone actually become 30+% bodyfat? This is how.

### Processed food labels

FDA allows a large degree of inaccuracy on food labels for calories and macros. If you're frequently eating the same packaged foods every time, inaccuracies will just even out. Otherwise, something that says it's only 500 calories could be 6-800 in reality. Compounded over multiple items in a day, this can mean you think you're in a deficit but you're just maintaining (no fat loss), or even gaining fat.

## Adjusting calories when activity level increases

I believe the fastest way to lean down is to minimize cardio simply because it helps make your life so much easier. You'll have a more consistent routine and know how much you should eat consistently.

The moment you introduce cardio, you have to adjust to make sure:

1. You're not losing too much muscle mass – guaranteed to happen when activity level increases
2. Your metabolism isn't damaged from eating less than you should
3. You're still in a caloric deficit and not eating more than you should

You will never be able to perfectly calculate how many calories your cardio sessions used. No tracker or calculator is accurate, unless you're monitored in a professional lab. This is especially true for outdoor casual activities like biking, etc.

The easiest rule to follow when you do cardio is to just **eat the minimal amount of food to feel ok.**

It doesn't matter what macros these extra calories are but just keep in mind:

- Carbs is always the best choice to fuel the body
- Fat turns into fat most easily
- More than 1g / bodyweight of protein will turn into carbs and be used by the body like carbs

## Supplements

I take supplements to aid muscle recovery, rebuild, and general physical well-being.

I take creatine and BCAAs together 30 – 60 minutes before workouts so they're processed in the bloodstream. I've tested periods without creatine, and without BCAAs, and for me they make a big difference both in muscle recovery and their actual muscle appearance. Creatine specifically causes muscles to be fuller.

- [Creatine Monohydrate](#)
- [BCAAs with electrolytes](#) – I recommend XTEND because they have a great reputation and the best tasting flavors in my opinion
- Protein powder - personally I go with a proven brand [Optimum Nutrition Gold Standard](#). I stay away from influencer productions simply because I know how easy it is to create and sell a product without adhering to high quality standards.
- Multi-vitamin
- Vitamin C
- Vitamin D3
- Vitamin B12 (I also supplement via nutritional yeast, which tastes like cheese)
- Omega 3 fish oil

## Why the fitter you get the easier it is

### Hormones and setpoint

Hunger and satiety hormones are produced in a way that's proportional to bodyfat.

**Principle: the less bodyfat you have, the easier it is to feel full and less frequently you'll experience hunger**

These are controlled by gut hormones: leptin, ghrelin, and peptide YY (PYY). Gut health is extremely important since it's your second brain and it communicates with the brain in our heads.



Our gut ranks #2 in the number of nerve cells, outdone only by the brain in our heads. Scientists refer to the second brain as the enteric nervous system (ENS), which is two thin layers of more than 100 million nerve cells lining your gastrointestinal tract from esophagus to rectum.

Research and experience show that there are setpoints, which is the bodyfat % your body wants to be in. You're born with a setpoint but it can be changed. How easily it is to change depends on how long you've spent being at certain bodyfat %s.

**Principle: the longer you spend being at higher bodyfat %s the harder it is to change your setpoint**

This is why people who have been obese for a long time can lose fat but they will almost never be ripped no matter how hard they try. Extreme outliers exist but they are exceptionally rare. This is why almost all the biggest fat loss transformations in popular media have rebounded. **It's actually less about habit changes and more about biology.** Fighting biology is an uphill battle so you better start now if you want to change your setpoint.

No hormone is bad. They just need to be mastered.

This is a great medical video on how hormone feedbacks work for fat loss:

<https://www.youtube.com/watch?v=NKjOfR8vcas>. It's just science.

Here's a breakdown of hormones as it relates to getting lean.

## Insulin

Function:

- Produced by pancreas after eating foods to process nutrients into cells, not just fat cells, also muscle cells.

Feedback loops:

- Produced most when eating carbs.
- If you keep overeating, especially sugar, carbs (which breaks down to sugar), your body will become insulin resistant, which leads to more fat gain when eating the same amount of calories compared to if you were not insulin resistant.

What to do to optimize for fat loss:

- Eat carbs together with fiber and a good mix of fat and protein. Minimize eating simple carbs, especially sugary food and drinks.
- Strength training, especially very difficult movements, are great for improving insulin sensitivity and preventing insulin resistance.

## Leptin

Function:

- Communicates from fat cell to brain to signal if there's enough fat cells in the body or not. It gives the brain approval to let your body use fat for fuel or store fat on body.

Feedback loops:

- Leptin is directly proportional to bodyfat %.

- As you diet and your bodyfat % decreases, leptin will decrease.
- If your brain thinks leptin is too low (doesn't necessarily mean it is low, just poor signals), brain thinks body lacks fat so it stores fat instead of losing fat and you will hit a plateau.
- As you eat more, leptin will increase. If your body produces too much leptin, it leads to leptin resistance, where the brain cannot recognize it anymore and it's ignored so the body thinks there's not enough fat and you need to store more fat, leading to fat gain.
- Leptin responds very well to glucose but not fat intake. Eating fat hinders leptin changes.

What to do to optimize for fat loss:

- Reduce bodyfat by being in a caloric deficit.
- During a cut (sustained caloric deficit phase), use high carb refeed days aka cheat days (calorie spikes by eating more food), with max 100g fat that day to continue losing fat.

## **Ghrelin**

Function:

- Produced by the gut to signal body needs to eat. Also known as the hunger hormone.

Feedback loops

- Increases when you haven't eaten in some time, especially as stomach empties.
- Decreases when you eat, especially as stomach expands.

What to do to optimize for fat loss:

- Drink a lot of water.
- Eat high fiber foods.
- Eat high volume low calorie foods during a cut. Eat things with flavor that you enjoy. Uses low calorie sauces etc.

## **Peptide YY (PYY)**

Function:

- Produced by the gut to signal food intake satiety to the brain.
- Amount of PYY is proportional to calorie intake. It also responds most to protein intake.

Feedback loops:

- As bodyfat decreases PYY behaves more optimally and signals satiety more accurately. The more bodyfat you have, the less accurate PYY signaling is so it's more difficult to feel satisfied.

What to do to optimize for fat loss:

- Reduce bodyfat by being in a caloric deficit.
- Eating more protein during a cut is often not for muscle building, it's simply to manage hunger while staying in a calorie deficit.

## Refeed frequency goes up

### **The lower your bodyfat %, the more frequently you need to refeed or have diet breaks**

Combined with the previous point about how the lower your bodyfat % the easier it is to control appetite, this means you can be in a healthy caloric deficit Monday to Friday, and then enjoy double refeed days Saturday and Sundays every week. These refeeds are much higher than maintenance, and because you're so lean and your body is so optimal already, you will actually find it hard to eat the volume of food needed to hit calorie goals on weekend refeed days. You end each week very satisfied.

### **This is my infinite feedback loop of how to be 10% bodyfat or lower year-round.**

If you want to be in this state, I believe it's worth the effort to achieve 10% bodyfat, just once. Even if you have to pay a coach thousands of dollars, it's probably worth it considering how much you spend on other less important things. My #1 coaching recommendation: <https://prophysique.com/> (price undisclosed but word is \$600+ / month). I'm not paid to endorse him. He doesn't even know me. He's the only person I trust by default in the fitness industry. I do not personally train people but I'm happy to discuss and answer questions the best I can, just contact me.

## Body Adaptations: Muscle Mass and Memory, Recovery

As mentioned earlier, the more muscle you have, the higher your maintenance calories is, so you can enjoy eating more without gaining fat.

A huge benefit of having more muscle that most people don't know is that muscles have memory. Once built, even if you lose some muscle mass (continuously happens throughout the year), when you train the muscle again, it takes less time to build back than before. This is why it really pays to build your muscle mass to a certain point, at least once.

Your central nervous system also has memory so you will never really forget how to perform moves optimally.

You also recover faster and faster the fitter you get (to a certain point). Recovery only becomes harder at extremely low bodyfat %s that most people won't need to achieve, eg <8%.

## Mastery of Dieting

By now you should've realized that once you've applied and experienced transforming your body at will, you won't forget it. You can do it anytime because you would be so attuned to your body and your genetics that you know what levers to pull to cause changes you want. You can tailor optimal ways of eating and training that perfectly matches your lifestyle.

Maybe you want to be shredded in the summer months (say 8-10%) and a bit heavier (say 12-15% bodyfat) in winter months so you're less cold and can enjoy more holiday gatherings with calorically dense foods that you won't track. This is what I do now. Or maybe you want to be shredded in the winter for some reason, which I've also done in the winter of 2020 because it was the first winter after Covid and I knew I needed to be at my mental and spiritual peak to handle it so I prepared leading up to it. It became among the most fulfilling times of my life, filled with days of bliss despite tons of objectively terrible things happening in my life.

# Final Word



Unlike amassing wealth, you cannot get lucky or use any unguine methods to become shredded. If you achieve it once, you know you did something that very few people on the planet can do.

In the past, only warriors would be lean and muscular. Then as humans became more civilized, warriors were replaced by athletes. In the modern age, one of the greatest social trends is that everyone wants to look like an athlete. But the problem is the intense focus on aesthetics only. Most people just want results their eyes can see.

**The real prize in my opinion is obtaining the soul of a warrior.** Everything else, including a lean and muscular physique happens naturally as a byproduct.

**I challenge you to become shredded, at least once,** for the worthy reason of becoming a stronger man, not for fleeing superficial reasons.

**“Our bodies will decay, but true strength will always remain.” ~ me**

Words are always meaningless without action because actions reveal our true intentions. Strong men have character. One of the most important characters is integrity, to be trustworthy. If you're a man of your word, and you say anything suggesting you want to be 10% bodyfat, **then you must take action.**

I believe men should not say anything future looking about their intentions unless they're already in the process or will definitively back it up with action. Men who talk too much lose the weight of their words. I was like this years ago until I woke up.

Men are only becoming weaker, hiding behind screens, talking too much, complaining about being hurt, hurting others on purpose, and having no accountability. **A lack of accountability leads to victim mentality, which leads to suffering and mental stress because it is the weakest form of being.** Social media isn't the problem, it simply made it easier to become weaker.

***“Do not pray for an easy life. Pray for the strength to endure a difficult one.” ~ Bruce Lee***

Science and technology are great, but there is great value in studying history. Find out who suffered incredible injustices but didn't complain. Who were objectively victims but never thought of themselves as victims? Understanding these people will make you stronger.

I believe you can master dieting and reveal your ultimate form that already lies deep within you, waiting to be unlocked.

I wish you live a meaningful life and discover...your true potential.

Onwards, my friend.

~ Jonathan Zhao, April 2022