

BRUNCHBODY  **Y**
— FITNESS —

Nutrition Guide

Version 1.0

Introduction

Welcome to the Brunch Body Nutrition Guide. This document is intended to help the reader better understand the physiology and biochemistry involved in bodyweight management. This should be considered a living document and may be subject to changes over time. Please feel free to use or distribute at your leisure.

Disclaimer: This document is for educational purposes only. Please consult your primary care physician prior to starting any new diet regime.

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TLDR

- Stored fat is the result of caloric surplus (eating more calories than you are burning)
- Prolonged fat accumulation can cause insulin resistance
- Prolonged fat accumulation can create a negative hormonal feedback loop, leading to rapid weight gain
- Stored fat metabolism will only occur in a caloric deficit (eating fewer calories than you are burning)
- Eliminate stress-related hormonal responses leading to weight gain
 - Improve your sleep
 - Time your meals through intermittent fasting (2 Meals a Day)
 - Improve general time management
 - Continue educating yourself to lower stress and keep neurons healthy
 - Keep a journal to decompress thoughts and track your progression
- We still want to promote muscle growth
 - It helps increase BMR (Basal Metabolic Rate)
- Increase hypertrophy through high volume resistance training to increase lactate in cells
- Eat before working out to maximize bioavailability for muscle growth
- Stay hydrated and maintain an electrolyte balance for proper cell function
- Desired Macro Ratio 60/30/10
 - ~ 60% of Calories from Fat
 - ~ 30% of Calories for Protein (1-2 grams of protein per kg bodyweight)
 - 10% of Calories for Carbohydrates
- Eating for Weight Gain Have a Calorie Differential of 1.1 to 1.15 Ex: 2000 Calories Out = 2250 Calories In
- Eating for Weight Loss Have a Calorie Differential of .66 Ex: 2000 Calories Out = 1320 Calories In
- Bodyweight Management is game of averages
- Be consistent
- Don't forget to stretch

Weight Gain

1.1 Gaining Stored Body Fat

- We want some body fat for proper hormonal function
- Stored fat is the result of a caloric surplus (Eating more calories than you are burning)
- Prolonged fat accumulation can cause insulin resistance (reduces cellular glucose uptake)
- Can create negative hormonal feedback loop making weight gain even easier

After a meal, carbohydrates are broken down into glucose, then enter the bloodstream where it can be used as fuel with the help of insulin. If there is an excess amount of glucose some of it will be stored in the liver as glycogen. Some of that glucose is converted into fatty acids and stored as fat in adipose tissue. Adipose tissue will store the fatty acids until insulin levels decrease and glucagon levels increase. If you eat a diet that is high in refined carbohydrates OR you are constantly in a caloric surplus OR you are constantly eating carbohydrates throughout the day keeping blood glucose levels elevated OR you are constantly under stress increasing cortisol, you will store more fat and may run into problems with insulin resistance.

Furthermore, as more glucose is being stored as fatty acids, cholesterol is being bound to these fatty acids in the form of HDL and LDL Cholesterols. This process limits production of Cortisol, but also the production of DHEA (Dehydroepiandrosterone). DHEA is a precursor to Testosterone and Estrogen. Decreased DHEA = Decreased Testosterone = Decreased dopamine, increased risk of depression, reduction in muscle composition, increased stress response, among other things. It's a snowball effect, all of these daily behaviors start to add up and can cascade into multiple negative biochemical feedback loops and can be detrimental to your overall health.

Not all fat is bad, there are benefits to having dietary fat in our meals, in fact it is an essential part of our nutrition, specifically α -linoleic acid (Omega-3) and linoleic acid (Omega-6). Omega-3 reduces the risk of heart attacks, reducing hypertension and lowering LDL cholesterol. When converted into EPA (Eicosapentaenoic acid), has been shown to decrease fat in our blood stream, reducing plaque.[1,2,3] There is also growing evidence that it is metabolized in the brain and may reduce symptoms associated with depression.[4] Omega-6 when converted into Arachidonic acid, is needed in the anabolic signaling cascade to build muscle, it helps in the repair of neurons, it helps maintain hippocampal cell membrane fluidity in the brain, among other things. However, too much dietary fat (excess digested fat during a caloric surplus), will be transported from our small intestine through your lymphatic system into our bloodstream and eventually end up in our adipose tissue as well. In the matter of accumulation of stored fat, calories in vs calories out is the most critical unit of measurement to manage our weight.

1.2 Gaining Muscle

- We want to promote muscle growth
- It helps increase BMR (metabolism)
- Increase hypertrophy through high volume anaerobic activity to increase lactate in cells
- Lactate is needed for muscle growth and brain function
- Eat more Protein (specifically L-Leucine) from whole foods for myosin development
- Eat prior to working out to maximize bioavailability during anabolic window
- Stay hydrated and maintain an electrolyte balance for proper cell function
- Have a Calorie Differential of 1.1 to 1.15 (1-2 g Protein / 1 kg body weight) for maximum gains (assuming you already met your weight loss goals)

When it comes to body composition we don't want to eliminate all forms of weight gain. Healthy muscle density and vigor is not just for vanity, 40% of the human body is muscle mass [5]. The more muscle tissue you have, the higher your metabolism will be and we want to continue to build muscle to reduce the effect of age related muscle loss [6,7].

In general, when we are talking about skeletal muscle cell growth we are referring to the growth of myosin. New myosin is formed by ribosomes in the cytoplasm. These ribosomes do so through gene expression from the cell nucleus, this expression happens from a process called the anabolic signaling cascade in which proteins in the cell signal to the nucleus to grow [8,9,10,11]. This anabolic signaling cascade can be triggered by a variety of hormones (ex. Testosterone, IGF-1). The most abundant way for the anabolic signaling cascade is through the presence of lactate.[12]

Lactate is a byproduct of anaerobic activity in the muscle cell. Glucose and Ketones are broken down in the cell into pyruvate to produce ATP (energy). In the presence of Oxygen(O₂), the pyruvate molecule can be broken down further to produce even more ATP (energy) + CO₂. Lack of Oxygen in the cell will force the pyruvate molecule to bond with hydrogen creating Lactate. As O₂ is replenished in the cell it can bond with two Lactate molecules to create glucose through the process of gluconeogenesis. Lactate is not only synthesized in muscle cells but also in Astrocytes in the spinal cortex and brain as well, and is needed for improving healthy signals between neurons.[13] Lactate does come with side effects, it is associated with pain, soreness, as well as fatigue.

In order to maximize lactate production in muscle tissue we need to exercise to failure, in other words we need to engage in a high volume of activity on your target muscle until the Lactate has built up to the point where you can no longer perform the exercise. This process will create what is called the "Anabolic Window" and will start during your workout and will last for about 30 minutes after.[14] It is vital that your ribosomes have adequate fuel during this period to produce more myosin. The fuel for this process comes from amino acids, in particular L-Leucine. Ideally you want to have 1 to 3 grams of L-Leucine per meal, from whole foods. Thus, for muscle growth it is more important that you eat prior to exercise that way it is digested and bioavailable for this recovery phase. Likewise, it is important that your electrolytes are also balanced to aid in the process of cellular metabolism.

Weight Loss

2.1 Fat Loss

- Eliminate stress related hormonal responses leading to weight gain
 - Improve your sleep
 - Time your meals through intermittent fasting
 - Improve general time management
 - Continue educating yourself to lower stress and keep neurons healthy
 - Keep a journal to decompress thoughts and track your progression
- Stored fat metabolism will only occur in a caloric deficit (eating less calories than you are burning)
- Aim for an average of 2 lbs per week
- Exercise will speed up the process
- Consistency will eventually create a positive hormonal feedback loop making fat loss easier

Fat is a fuel source for your body, triglycerides can provide a high amount of ATP(energy) to your cells. When glucose is low, fatty acids are broken down in the liver to produce ketones and glucose which can then go to other parts of the body to be metabolized. [15,16] If glucose levels are low and ketone levels are high for a long enough time, either by being in a fasted state or through a ketogenic-type diet, your body will be in a state of ketosis (ketones become the preferred fuel source). Does this mean just by eating a low carbohydrate diet you will lose body fat? No. As stated in the previous section on fat accumulation, if you do not keep track of your calories and you continue to remain in a surplus, you have the potential of storing even more fat. So, if we need glucose to be low in order to burn fat, and we can provide our body the fat it needs through our diet, how can we burn our stored fat? By being in a calorie deficit and triggering a hormonal response to create a feedback loop to tap into our fat stores. There is one problem, we can't be in a calorie deficit forever, at some point we are going to run out of fuel. So how are we going to keep our desired body composition once we have it? By managing your hormones. In the previous section, we alluded to the fact that hormones play a critical role in the weight gain process. Hormones have an equally critical role in losing weight. In this section, we will take a deeper dive into these hormones, how they work with each other and how we can use that knowledge to reverse course, maximize our weight loss and keep it off.

2.2 Hormones

Hormones are chemical signals we produce that allow one part of our body to communicate with another part of our body. Hormones are the glue that binds our brain and body together. If all three components aren't firing at the same rhythm we run the risk of causing irreparable damage. We have dozens of hormones moving through us at all times, and they all serve specific functions. Some are synergistic (work together), some are antagonistic (counterbalance each other). When it comes to metabolism there are Eight that are most influential: Cholesterol*, Cortisol, Epinephrine, Insulin, Glucagon, Ghrelin, Leptin, Growth Hormone, Testosterone.

Cholesterol

Cholesterol itself is not a hormone. Cholesterol is needed for the production of steroid hormones, the production of bile, and the synthesis of vitamin-D. Our bodies produce Cholesterol, it is a self-regulated process and recycled throughout the body. Dietary cholesterol is poorly digested and the effects on your overall levels are negligible.[17] Cholesterol production is determined by the ratio of Insulin vs Glucagon in your body. Insulin can promote the synthesis of new Cholesterol by stimulating HMG-CoA reductase. Glucagon, in contrast, will inhibit this process. Some of this Cholesterol will then turn into lipoproteins VLDL, LDL, HDL. These lipid proteins will move fatty acids around the body, some of that HDL Cholesterol is then stored in your adipose tissue.[18]

Cortisol

A product of Cholesterol is Cortisol. Cortisol is a signaling hormone that can be made in the Adrenal glands. Cortisol is produced when glucose levels are low as well as during stress (including exercise). If glucose levels are low and Cortisol levels are high, it can promote protein catabolism (breakdown of muscle and bone), it can also promote Fat mobilization (pulling triglycerides and glycerol from fat cells) to produce more glucose (gluconeogenesis). Cortisol blocks the sensitivity of the insulin receptor in your cells, this keeps glucose out of your cells and remains in your bloodstream. If glucose levels are high in the presence of cortisol, it can potentially lead to hyperglycemia.[19] Cortisol also aids in the production of fatty acids by turning glucose into glycogen (glycogenesis). Cortisol can also make your smooth muscle cells more sensitive to norepinephrine causing vasoconstriction raising your blood pressure. This process is fine in acute spikes, it is needed to help us stay in a circadian rhythm. [20] Problems start to occur while having elevated cortisol levels chronically, this can cause considerable muscle loss, lowering your metabolism, while simultaneously increasing fat-storing accumulation. [21]

Epinephrine

Much like Cortisol, Epinephrine is released from adrenal glands as well as the sympathetic nervous system during acute stress (exercise), or while in a fasted state, and is needed for stored fat mobilization. Epinephrine is also a neurotransmitter and has been linked to enhancing long-term memory.[22,23,24,25,26] As discussed in the muscle growth section, Anaerobic exercise and the production of lactate, can improve the connection between neurons making it easier for Epinephrine to interact with fat cells and improve fat mobilization as well as improve memory.

Insulin

Insulin is produced in the pancreas. When glucose levels are high, insulin is released into the bloodstream to lower glucose levels back to normal. It does this by signaling to your liver to start packaging the glucose, one way by signaling to turn some glucose into glycogen (glycogenesis) another way is to signal to turn some glucose into pyruvate, that pyruvate can be broken down further to acetyl CoA which can then be used to make more Cholesterol. Insulin will also signal to your muscle tissue to let glucose and amino acids into the cells to stimulate protein synthesis. Insulin will also signal to your fat tissue to activate fatty acid synthesis (lipogenesis) and inhibit fat metabolism, promoting fat storage. Eating a diet that keeps Cortisol levels chronically high can lead to Insulin resistance.[27] As said before, Cortisol blocks the sensitivity of the insulin receptor in your cells, this keeps glucose out of your cells and remains in your bloodstream. If glucose levels remain high our pancreas is going to keep producing more insulin. This constant overproduction of insulin begins to weaken our pancreas, eventually to the point where we can potentially stop producing enough insulin, this is Type II Diabetes. [28]

Glucagon

Glucagon is also produced in the pancreas. When glucose levels are low, Glucagon is released into the bloodstream and signals to your liver to turn glycogen or amino acids into glucose (glycogenolysis). Glucagon signals to adipose tissue to activate fat mobilization (lipolysis). [29] Glucagon works in synergy with epinephrine, both of them work together signaling fat mobilization. Glucagon is an antagonist to Insulin, we associate Insulin with fat storage, Glucagon with fat burning.

Ghrelin

Ghrelin is produced in the stomach. When glucose levels are low, Ghrelin sends a signal to your brain that you are hungry. Ghrelin works in synergy with Cortisol, as Cortisol increases Ghrelin increases. This is why chronic stress can be so damaging, we begin to develop this feedback loop where even though the body might have plenty of glucose available, stress is telling your brain to eat, this can result in a “bottomless pit” phenomenon in which you may have days where you never seem to feel full, this can very quickly get out of hand.[30] It’s not all bad though, under normal circumstances Ghrelin also signals the pancreas to secrete Glucagon which activates fat mobilization. Ghrelin also increases Growth Hormone production.[31,32] By knowing that this feeling of hunger is actually just a result of a chemical reaction happening in our bodies, we can then make an executive decision on whether or not to give the body carbohydrates, fats, proteins, or start burning stored fat.

Growth Hormone

Growth Hormone production occurs in the pituitary gland. Growth Hormone secretion occurs in the highest volume in the presence of Ghrelin, which is present when the body is low in glucose. Some of the Growth Hormone produced will bind to the liver to produce Insulin-like Growth Factor 1 (IGF-1) which aids in protein synthesis. Growth Hormone also stimulates the production of gluconeogenesis in the liver and stimulates the breakdown of triglycerides (fat mobilization) in adipose tissue.

Leptin

Leptin is produced in fat cells. The amount of leptin that is released is based on the physical size of the cell, the more triglycerides in a cell, the larger the cell will become, the more leptin is produced. Leptin is kind of like a thermostat hormone, it signals to the brain that you have fat stored and activates the sympathetic pathway to release epinephrine to signal back to the fat cell to start beta-oxidation.[33] This will affect the rate at which you burn through your fat. [34] Leptin can also inhibit the synthesis and release of Insulin which could become problematic if you are dealing with diabetes. High amounts of blood glucose over time can also damage Leptin receptors (Leptin Resistance) making it even more difficult to start metabolizing stored fat.

Testosterone

Testosterone is a very powerful androgen hormone. It is produced in both the adrenal glands and reproductive organs of both sexes. Testosterone can increase the release of dopamine, which is a precursor to epinephrine.[35,36] Dopamine makes us feel good when we accomplish something, it can also lower stress and anxiety. Free testosterone is also involved in tissue repair, it will bind to receptors on a cell wall and initiate the anabolic signaling cascade needed for protein synthesis. It also signals to the kidneys to produce more red blood cells. When blood glucose levels are high, it inhibits the production of enzymes needed for the adrenal glands to produce DHEA and subsequent down chain hormones Testosterone and Estrogen.[37,38,39] This will consequently affect epinephrine production reducing fat metabolism of stored fat. We want an optimized level of Testosterone and Estrogen, that does not mean more is better. Excessive amounts of Testosterone can be further metabolized when coming in contact with Aromatase. Aromatase is an enzyme responsible for the conversion of androgens to Estrogen, while 5 α -reductase converts Testosterone to DHT. DHT can cause acne, excess body hair, male pattern baldness, and may even be linked to prostate cancer.[40,41,42,43] High Testosterone can also lead to higher LDL cholesterol levels, which can increase your risk of heart disease.[44] Too much Estrogen can lead to problems as well, particularly breast cancer.[45]

Summary

Cortisol – Neutral. Fat burning in the presence of glucagon. Fat storing in the presence of Insulin.

Epinephrine – Fat burning through fat mobilization.

Insulin – Fat Storing. Indirectly fat burning, needed for protein synthesis (more muscle, higher metabolism)

Glucagon – Fat burning through fat mobilization.

Ghrelin – Neutral. Alerts your brain you are hungry and to release Glucagon and Growth Hormone.

Growth Hormone – Fat Burning through fat mobilization. Builds muscle by stimulating protein synthesis

Leptin – Fat Burning. Signals to release Epinephrine to mobilize fat.

Testosterone - Fat Burning by reducing stress, increasing dopamine, increasing Epinephrine. Builds muscle by stimulating protein synthesis.

2.3 Hormone Management

Now that we have a basic understanding of all the chemicals involved, we can now use that knowledge to our advantage to aid in the process of weight loss and long-term sustainability. We are going to focus on a few actions: Sleep, Diet, Brain Activity, Physical Activity.

2.3.1 Sleep

- Sleep is a primary driver of hormone regulation
- Have a morning and bedtime routine
- Avoid light, especially blue light, at night
- Avoid chronic food and caffeine or stress-inducing activity intake late in the day
- Get 10-30 minutes of daylight upon waking up
- Lower your core body temperature at night to fall asleep faster
- Consider taking a sleep study if you are having problems staying asleep

When it comes to weight loss as well as overall health, optimizing sleep is one of the most important actions you can take. Sleep is the time when Growth Hormone and Testosterone production peaks, not enough sleep can wreak havoc on your overall health [46,47,48,49,50,51] Routine sleep is dependent on your circadian rhythm, a process in which cortisol plays a huge factor. Cortisol peaks around the time you wake up, fluctuates throughout the day, and tapers off around bedtime. If we are under stress this can drastically reduce the amount of sleep we get in a night.[52,53] Caffeine can also keep cortisol levels elevated for up to 5 hours and may interfere with your sleep cycle therefore you may need to cut back or adjust on when you are drinking it.

Another major factor in your sleep progression depends on the amount of blue light you are exposed to. Blue light is radiation with wavelengths between 400 and 500 nm and is within the visible light spectrum. Much like how light enters the chlorophyll of a plant to drive photosynthesis, light enters the eye and triggers activation of melanopsin cells which then triggers activation of the Hypothalamus region of our brains.[54,55,56,57] That activation secretes a peptide that floats through the bloodstream and signals to other parts of the body to begin doing certain actions. Blue light is highest at sunrise and sunset. Blue light has relatively high energy and has pronounced effects on melatonin production.[58] Melatonin is a hormone produced by the brain that helps us feel tired, blue light can suppress melatonin production for up to 3 hours depending on the intensity. Blue light is not only produced by the sun, it is also produced by our electronic screens. In order to start falling asleep regularly, it is crucial to have a bedtime routine with at least 30 minutes of zero screen time. There may also be benefits from blackout curtains and or an eye mask to block out any light pollution. Conversely, a morning routine in which part of, you expose yourself to 10 to 30 minutes of daylight will aid in the process of waking up at the same time regularly.[59,60]

Finally, Temperature plays a role in optimizing our sleep. As your body temperature increases, your blood vessels expand allowing peptides, nutrients, and hormones to move faster through the body and signal to wake up or digest food or exercise. Our body temperature fluctuates naturally during the day and is at its lowest during the initial stages of sleep.[61,62] If we eat or workout too close to our sleep window it will keep our body temperature high making it difficult to fall asleep. If we do this over time we can actually begin to shift our circadian clock and start falling asleep later and later, which is fine if we are trying to adjust to a new time zone, but if our waking time is still the same, we will quickly see our hormones begin to lose balance which can lead to a hormonal feedback loop of fat accumulation.

2.3.2 Diet

- Intermittent Fasting (minimum 18/6)
- 2 meals a day (4 to 6 hours apart)
- Macronutrient calorie ratio 60/30/10 (Fat/Protein/Carbohydrate)
- Need to be in a calorie deficit for the metabolism of stored fat ($1/3$ less or .66 calorie differential)
- Consistency is the key to success

Your liver can produce glucose from 3 main sources: Carbohydrates, Fatty Acids, and Amino Acids (building blocks of proteins). Ideally, you just want to consume enough glucose for your cells to function properly. Carbohydrates are the easiest for your body to metabolize. Taking in carbohydrates is a slippery slope because we can very easily overconsume, leading to fat storage.

We know we can produce glucose from other sources like protein and fat so exogenous carbohydrates are not essential for survival. We aren't just trying to survive, we want to thrive, so we should still consume some for the production of new muscle tissue and metabolic flexibility.[63] Metabolic flexibility allows us to metabolize both fat and carbohydrates. If we eat a diet high in carbohydrates and low in fat it is difficult for our body to utilize fats and vice versa, too much fat and not enough carbohydrates make it difficult for our bodies to utilize carbohydrates. Why would you want flexibility? We don't live in a vacuum. There are going to be times when there might not be any other option. Plus, let's face it, carbohydrates taste good. It is better, in the long run, to have them in moderation than to not have them at all and end up binge eating and sabotaging your progress. If there is a silver lining to this, Fat has 9 calories per gram while carbohydrates only have 4 calories per gram which means you can eat more calorie-dense foods and focus more on portion control. Ideally, we want 60% of our calories from fat and 10% of our calories from carbohydrates. This should give us enough flexibility where our cells are getting enough carbohydrates throughout the day and into our workouts and enough fat for use to easily switch into fat-burning once that glucose is used up.

In order to burn stored fat, we need to get into a fasted state either through the duration of time between meals or by exercise. If we are out of glucose, we will start breaking down stored fat from adipose tissue but we will also start breaking down our muscle tissue as well, therefore we need to provide the body with protein but we also don't want so much protein that it is broken down into glucose and stored as fat. As stated in the weight gain from muscle section we want about 1 to 2 grams per kg of body mass, which is roughly about 30% of your total daily calorie intake.

In the previous section, we talked about circadian rhythm and body temperature fluctuation naturally during the day. Our body temperature has a 24-hour rhythm. We are coldest during sleep, our temperature begins to rise around waking, and continues to rise and fluctuate for about 10 to 12 hours after waking.[64,65,66] We know our blood flow increases with body temperature so we can use that to our advantage when it comes to nutrient uptake.

This program is named brunch body for a reason, we are going to focus on breakfast and lunch. In general, it takes about 3 to 6 hours on average for food to pass through the stomach and small intestine after a meal; longer if there was a lot of fat.[67,68] Nutrients get absorbed as the food is broken down, with the majority of nutrients being absorbed in the small intestine, where they're then transported into the bloodstream. If for example, we eat our first meal of the day at 10 am those nutrients won't start entering our bloodstream until maybe 4 pm which means if we work out the late afternoon we will be primed for maximum recovery during the anabolic window post-workout.

Taking advantage of our natural cortisol fluctuations, we are going to consume our first meal within the first hour of waking. 60/40/75 percent of our daily total Fat/Protein/Carbohydrate. This will give us enough energy to break our fast and get through the morning. Our second meal should be around 3 to 4 hours after that. 40/60/10 percent of our daily total Fat/Protein/Carbohydrate should give us the maximum amount of bioavailable amino acids during the anabolic window post-workout. We are then going to exercise 4 to 5 hours after that to take advantage of all those bioavailable nutrients and to accelerate us back into a fasted state. Here are some examples of a meal split for someone eating 1200 calories a day:

Target Totals		<i>Meal #1</i>		<i>Meal #2</i>	
Calories	1200	Calories	666	Calories	534
Fat (grams)	80	Fat (grams)	48	Fat (grams)	32
Protein (grams)	90	Protein (grams)	36	Protein (grams)	54
Carbs (grams)	30	Carbs (grams)	23	Carbs (grams)	8

Option 1

Meal 1
 4 eggs
 2 slices of bacon
 1 English muffin
 1 tablespoon butter

Meal 2
 8 oz Hamburger
 1 tortilla shell

Option 3

Meal 1
 4 eggs
 1 Avacado
 Corn tortilla

Meal 2
 8 oz Rib Eye
 8 oz Button Mushrooms

Option 2

Meal 1
 4 eggs
 1 Serving of cereal
 1/3 cup heavy cream

Meal 2
 2 chicken breast
 1 cup of broccoli

Option 4

Meal 1
 1 1/2 cup Soy beans
 3 Tablespoons mct oil

Meal 2
 1 Protein Shake

Finally, let's discuss calorie intake. It is advantageous for us to have fasted states in our diets. Whether we are trying to lose weight, gain weight, or maintain, fasting has more benefits to our hormones and general well-being. We can still build muscle while burning fat, but if your goal is to build muscle and gain weight, have a Calorie Differential of 1.1 to 1.15 (10-15% calorie surplus). To lose weight, we need to be in a calorie deficit of around 0.66. How do we know if we are in a calorie deficit or surplus?

We have to do some math...

First, we need to find out our Basal Metabolic Rate (BMR). BMR is the amount of energy expended while at rest. The equation for this is shown below. [69]

For men: $BMR = 10(\text{Weight}(\text{lbs.})/2.205) + 6.25(\text{Height}(\text{in}) * 2.54) - 5(\text{Age}) + 5$

For women: $BMR = 10(\text{Weight}(\text{lbs.})/2.205) + 6.25(\text{Height}(\text{in}) * 2.54) - 5(\text{Age}) - 161$

We then need to add your BMR calories to any other calories you may have burned doing exercise.

As an example: a 220 lbs., 6'1", 35-year-old man would have a BMR of 1987 Calories. He ran 6 miles and burned an estimated 1029 calories. His Total Calories Out would be 3016 Calories. To have a Calorie Differential of 1 He would need to consume 3016 Calories.

We want to lose on average 2 lbs. of body fat a week. A pound of body fat is roughly 3500 calories that would mean to lose 2 lbs. a week, we need to be in a deficit of 7000 calories or 1000 calories a day.

Let's look at the example again: If the same man ran 6 miles a day for 7 days he would need to eat 2016 Calories a day, having a Calorie Differential of .66 (-33% calorie deficit).

This does not mean we need to adjust our calories day to day; calorie output is only an estimate. We recommend that you set a daily calorie goal and stick to it for 6-12 weeks then adjust. Weight loss is not linear, a gallon of water weighs 8.34 lbs., our weight can fluctuate drastically over a week just on water retention. It is consistency over time that will deliver you to your goal. Here is a real-life example of weight loss tracked over a year.



Why not just starve? There is no denying rapid weight loss works, at the end of the day, it is calories in vs calories out. However, we are still regulated by our hormones. If you are overweight for a prolonged period of time, leptin levels stay elevated and our brain thinks that is the new normal.[70,71] If we lose weight too fast our body risks rebounding because our brain wants to return back to normal. If we slowly lose weight it will give the brain a chance to adjust, we will also fortify our new habits over time.

Summary

- Intermittent Fast to aid hormone regulation, weight loss can be a byproduct.
- Eat high fat/ low carb to help stay fat adapted during fasted states to reduce muscle degradation
- Eat protein from whole foods to continue to build more muscle fiber
- Eat just enough carbohydrate early in the day, to turn off the ghrelin response, maintain metabolic flexibility, and to get amino acids into our muscle cells to build more tissue.
- Consistency is the key to success

2.3.3 Brain Activity

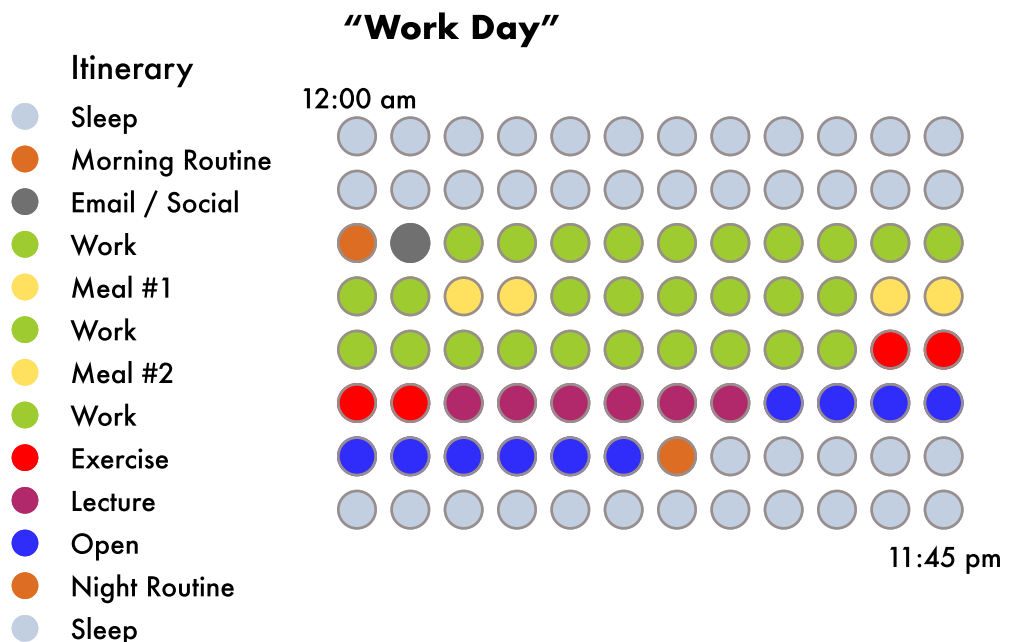
- The brain and body have a symbiotic relationship, you need to exercise both
- Routines and scheduling help remove mental clutter
- Practice Stress Management techniques for hormone management
- Keep a simple journal to stay on track

Keeping your mind clear and your brain sharp is critical in improving your overall health. As said before, your brain and your body are symbiotic and your hormones are what bind them together. Improving your neural pathways through learning and stress management will help improve your hormone regulation and help maintain and improve your body composition. In this section, we will discuss strategies to help reduce stress and increase our brain function.

Routines

Routines are great, they can help you get basic daily tasks done efficiently, help reduce mental clutter, and help you regain your footing when you are falling behind.[72] There are two types of routines Primary and Secondary routines. [73] Primary routines are your morning and bedtime routines. These are tasks you are guaranteed to do every day, this may include hygiene-related activities as well as journaling, sleep, stretching. Secondary routines are more nuanced and can be adjusted day-to-day. This may include work, studying, exercise, etc.

Primary routines can be written out in a simple list, while secondary routines benefit from time blocking. Time Blocking is a form of scheduling in which a day is divided up into blocks of time and each block is allocated to a task. We recommend starting with Day Themes. These can be themes like "Work", "Study", "Housekeeping", Those 24 hour day themes can then be broken into 15-minute blocks to which tasks are assigned. Day themes and time blocking should be used as a general itinerary tool to help us stay focused, mitigate daily tasks, and ultimately reduce anxiety. Here is an example of a 24 hour day using time blocking



Continuing Education

There are 100 billion neurons in the human brain.[74] Neurons are used to transmit information between different areas of our brain. In the context of body composition neurons are responsible for muscle contraction. Neurons are also responsible for the sympathetic nervous system's function. As we age these signals begin to dull, this not only affects our minds but can have a ripple effect across our entire bodies. Studies have shown that learning new tasks that involved memorization enhanced adult neurogenesis.[75,76,77] There is also growing evidence that learning a new task reduces stress and increases energy.[78,79] Lifelong learning is strongly suggested and that can take on many forms: formal education, massive open online courses (MOOC), creative writing workshops, art, a new hobby, etc. This should be looked at as a practice in personal development and just like body composition, consistency is what leads to longevity.

Journaling

Self-evaluation is the quickest way to begin the process of stress relief.[80,81] In most cases, excessive weight gain and chronic stress-related problems could have been prevented through the use of data logging.[82] Journaling does not have to be an autobiography. Over time, keeping account for our mood, as well as weight, with an occasional minor annotation, is enough information to provide an aggregate of data to become a powerful tool to quickly assess and pivot away from any unwanted habits, limiting your gains. Otherwise, it is very difficult to acknowledge a problem without sufficient evidence.

2.3.4 Physical Activity

- Deep stretch or Yoga in the morning
- Workout in the late afternoon, 3-4 hours before bedtime
- High volume resistance training for hypertrophy (muscle building)
- 90 minutes of steady-state cardio

We need physical activity. It is good for the brain and good for the body. What exercises should you do? Whichever activity you can stick to. We highly suggest our fundamentals program, it is a combination of high volume calisthenics aimed to hit the most amount of body parts in the least amount of movements possible. On top of that, we offer steady-state cardio programs you can do walking, jogging, or on a bike. Both programs are free. Ideally, we feel the best time of day to exercise is in the late afternoon.[83] Obviously, that is not possible for everyone, get it done during the time of day that you can do it consistently. We also recommend resistance training before cardio to burn off your glycogen stores and maximize fat loss during your cardio session. Stretch every day. Stretching in the morning, static stretching (stretching a muscle and holding that position) improves range of motion and can reduce injury, but can reduce strength if it is right before a workout.[84] It is advantageous to perform dynamic stretching(movement-based stretching) before a workout to increase blood flow and stay loose.

2.4 Maintaining

- Keep a record to manage your progress
- It's a game of averages
- Don't self-sabotage
- Stay positive
- Be consistent

Weight management is a chronic condition, it doesn't matter if you are overweight, underweight, or right where you want to be. Keeping track of your weight can potentially help you quickly alert your attention to any underlying health concerns you may encounter down the road. Don't fret over day-to-day fluctuations, weight management is a game of averages if you are consistent for a long enough period you will get results. Habits do not form overnight, it may take weeks or months to develop. [85] Start with small habits you can stick to and slowly build up, small wins will add up to big wins. That being said, we are human and we are bound to have days where we slide off the rails. This is where record-keeping becomes critical. Being able to track and manage your off days is the determining factor in whether you will sink or swim in this program. Cheat meals are going to happen but we need to define what a cheat meal is.

Our definition of a cheat meal is a meal that break one of three rules:

1. Is this meal outside of our eating window?
2. Is this meal going to be above my daily target Calories?
3. Is this meal going to be above any of my target Macros?

If you broke any of these three rules it's a cheat meal. If you broke all three that would be considered an off day. To make up for it, try again tomorrow. Going out to a restaurant or for fast food doesn't make it a cheat meal if it doesn't break any of the three circuit breakers. Just don't use it as an excuse to abandon the progress you are making. Success is a summation of cumulative progress over time, if you have one cheat meal a month, 97% of the time you are adhering to the program you set for yourself. That's pretty good odds that you will see results a year from now. Stay positive and try to have some fun, eventually, you will turn the corner and have a mind shift from "you have to do this for the rest of your life" to "you get to do this for the rest of your life".

My Meals

Studies have shown that most people eat a variety of about nine different meals. As stated throughout this document, it is important to keep a record of calories eaten. Think about 9 to 12 meals you eat on a regular basis. They can be homemade or from a restaurant. Can you find ways to adjust the servings? Can you find alternatives that better fit your calorie needs?

How to Calculate Calories(Cal) from Grams(g)

$$\text{FAT(g)} * 9 = \text{y Cal}$$

$$\text{PROTEIN(g)} * 4 = \text{y Cal}$$

$$\text{CARBS(g)} * 4 = \text{y Cal}$$

Meal 1

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 2

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 3

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 4

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 5

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 6

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 7

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 8

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 9

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 10

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 11

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Meal 12

Item	FAT(g)	PRO(g)	CHO(g)	Calories
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total	_____	_____	_____	_____

Macro Cheat Sheet

The following section is a collection of commonly found household food items. It is organized by category followed by calorie density. Item macros and serving sizes are based on averages from multiple sources and can be analyzed and used to calculate your meal plan as seen below.

Item	Common Serving Size	Serving in Grams	Calories per Serving	Fat (g) per Serving	Protien (g) per Serving	Carbohydrates (g) per Serving	Calories per 100 grams (Density)
New York Strip	8 oz	227	691	51	59	0	305
Rib Eye Steak	8 oz	227	608	43	56	0	268
Hamburger 80/20	8 oz	227	599	39	61	0	264
Filet Mignon	8 oz	227	595	40	59	0	262
Top Sirloin	8 oz	227	535	32	62	0	236
Hamburger 90/10	8 oz	227	504	27	65	0	222
Flank steak	8 oz	227	424	19	64	0	187

BEEF

New York Strip	8 oz	227	691	51	59	0	305
Rib Eye Steak	8 oz	227	608	43	56	0	268
Hamburger 80/20	8 oz	227	599	39	61	0	264
Filet Mignon	8 oz	227	595	40	59	0	262
Top Sirloin	8 oz	227	535	32	62	0	236
Hamburger 90/10	8 oz	227	504	27	65	0	222
Flank steak	8 oz	227	424	19	64	0	187

CHICKEN

Wing	1	27	77	7	5	0	283
Thigh	1	130	286	18	31	0	220
Leg	1	258	455	23	62	0	176
Breast	1	120	184	4	37	0	153
Eggs	1	50	70	5	6	0	140

TURKEY

Leg	1	275	546	26	78	0	199
Wing	1	208	411	23	51	0	198
Thigh	1	348	635	33	83	1	182
Breast	32oz	907	1282	19	277	0	141

PORK

Bacon	3 slice	35	160	12	12	1	457
Ribs	6 ribs	210	769	66	44	0	366
Sausage	1	68	207	19	8	1	304
Belly	8 oz	224	647	49	52	0	289
Ground	8 oz	224	556	44	40	0	248
Shoulder	8 oz	224	494	38	38	0	221
Chop	1	157	313	17	40	0	199
Tenderloin	8 oz	227	317	9	59	0	140
Ham	10 slices	230	231	8	39	1	101

LAMB

Chop	1	54	159	11	15	0	294
Shank	8 oz	227	520	29	64	0	229
Shoulder	8 oz	224	290	12	46	0	130

SEAFOOD

Salmon	1 fillet	227	452	28	50	0	199
Oyster	1	25	40	1	5	3	158
Clams	8 oz	227	322	5	59	12	142
Catfish	1 fillet	143	194	10	26	0	136
Lobster	8 oz	227	302	4	59	7	133
Tilapia	1 fillet	170	217	5	44	0	127
Canned Tuna	1 can	172	210	5	41	0	122
Tuna Steak	1 steak	142	171	1	41	0	121
Shrimp	1 shrimp	5	6	0	1	0	114
Cod	1 fillet	180	178	2	41	0	99
Crab Meat	1 cup	118	92	1	21	0	78

OILS

Avocado Oil	1 tbsp	14	126	14	0	0	900
Olive Oil	1 tbsp	14	126	14	0	0	900
Palm Oil	1 tbsp	14	126	14	0	0	900
Peanut Oil	1 tbsp	14	126	14	0	0	900
Sesame Oil	1 tbsp	14	126	14	0	0	900
Vegetable Oil	1 tbsp	14	126	14	0	0	900
Coconut Oil	1 tbsp	14	117	13	0	0	836

SERVING GRAMS CALS FAT PROTEIN CARBS Cal per 100g

DAIRY

Butter	1 tbsp	14	108	12	0	0	774
Cheddar Cheese	1 oz	28	114	9	7	1	408
Swiss Cheese	1 cup	108	419	33	29	2	388
Muenster Cheese	1 oz	28	104	9	7	0	372
Blue Cheese	1 oz	28	100	8	1	6	358
Cream Cheese	2 tbsp	29	104	10	2	2	357
Heavy Cream	1 oz	30	105	11	1	1	351
American Cheese	1 slice	21	66	5	4	2	313
Mozzarella Cheese	1 oz	28	84	6	6	1	301
Feta Cheese	1 oz	28	75	6	4	1	267
Half & Half	1 tbsp	15	19	2	1	1	128
Cottage Cheese	1/2 cup	109	105	5	12	4	96
Milk (Whole)	1 cup	244	150	8	8	12	61
Milk (1%)	1 cup	244	102	2	8	12	42

FLOURS

Almond	1 cup	112	696	56	24	24	621
Cornmeal	1 cup	122	455	4	10	94	373
Whole Wheat	1 cup	120	435	3	16	86	363
Buckwheat	1 cup	120	433	4	15	85	361
Rice	1 cup	158	565	2	9	127	358
All Purpose	1 cup	125	443	1	13	95	354
Cake	1 cup	137	483	1	11	107	352
Psyllium Husk	1 tbsp	16	56	1	3	10	352
Bread	1 cup	137	481	2	16	99	351
Gluten-Free	1 cup	124	432	0	8	100	348
Double Zero	1 cup	100	341	1	13	69	341
Arrowroot	1 cup	120	86	0	5	16	72

NUTS/LEGUMES

Macadamia	1 oz	28	213	21	2	4	762
Pecans	1	2	11	1	0	0	740
Pine	1 oz	28	201	19	4	4	719
Brazil	1	5	36	3	1	1	716
Hazelnuts	1 oz	28	199	18	4	5	711
Walnut	1	2	14	1	0	0	705
Almonds	1	1	9	1	0	0	669
Peanuts	1	1	6	1	0	0	610
Cashew	1	2	9	1	0	1	569
Pistachio	1	1	4	0	0	0	557
Coconut	1 cup	85	403	24	3	44	474
Chestnuts	1	8	21	0	0	4	245

WILDCARDS

Popcorn	1 cup	8	44	3	1	4	561
Potato Chips	4 oz	112	611	38	7	60	545
Cookie	1	30	153	7	2	20	509
Brownie	1	50	247	15	3	25	495
Tortilla Chips	10	30	144	6	2	20	481
Donut	1	60	257	14	4	29	428
Pastry	1	70	299	16	6	33	427
Slice of Cake	1	67	268	12	2	38	400
White Sugar	1 tsp	4	16	0	0	4	400
Breakfast Cereal	1 cup	36	143	1	2	31	398
Brown Sugar	1 tsp	3	12	0	0	3	387
Muffin	1	113	422	18	5	60	374
Pizza Slice	1	107	282	10	12	36	264

MUSHROOMS

Black Trumpet	2 oz	57	205	1	7	43	359
Porcini	1 cup	180	644	4	24	128	358
Oyster	1	148	61	1	5	9	41
Morel	1	13	5	0	0	1	41
Shiitake	1	19	8	0	0	1	41
Enoki	3.5 oz	100	40	0	2	8	40
King Trumpet	3.5 oz	100	40	0	2	8	40
Chanterelle	1 cup	54	21	0	1	4	38
Maitake	1 cup	70	26	0	1	5	37
White Button	1 oz	28	8	0	1	1	29
Cremini	1 cup	87	25	0	2	4	28
Portobello	100 g	100	28	0	2	4	28

FRUITS

Dates	1	7	22	0	0	5	310
Avocados	1	201	345	29	4	17	172
Plantains	1	240	311	0	2	75	130
Bananas	1	118	117	0	1	27	99
Raspberries	10	10	10	0	0	2	80
Persimmons	1	168	131	0	1	31	78
Grapes	10	49	38	0	0	9	78
Kiwi	1	69	47	0	1	10	68
Mango	1	336	223	1	3	50	66
Pears	1	178	113	0	1	27	64
Apple	1	182	105	0	1	25	58
Blueberries	1	1	1	0	0	0	57
Orange	1	140	79	0	1	18	56
Pineapples	1	166	93	0	1	22	56
Plums	1	66	34	0	1	8	51
Limes	1	67	31	0	1	7	47
Grapefruit	1	246	114	0	2	26	46
Lemons	1	84	38	0	1	8	45
Peaches	1	175	78	0	2	17	45
Blackberries	1	7	3	0	0	1	43
Melons	1	177	65	0	2	14	37
Strawberries	5	90	33	0	1	7	36
Watermelon	1 slice	286	98	0	2	22	34

WHOLE GRAINS

Sesame Seed	1 oz	28	174	14	5	7	623
Sunflower Seeds	1 cup	128	756	64	25	20	591
Flaxseed	1 tbsp	10	58	4	2	3	583
Pumpkin seeds	1 cup	138	803	63	34	25	582
Millet	1 cup	119	454	5	13	89	381
Oats	1 cup	82	305	5	11	54	372
Sorghum	1 cup	192	714	6	22	143	372
Teff	1 cup	193	713	5	26	141	369
Barley	1 cup	184	668	4	23	135	363
Rye	1 cup	169	605	3	17	128	358
White Rice	1 cup	158	201	0	4	45	127
Quinoa	1 cup	185	228	4	8	40	123
Brown Rice	1 cup	196	217	2	5	46	111
Buckwheat	1 cup	168	169	1	6	34	101
Corn	1 cup	154	154	2	5	29	100

VEGETABLES

	SERVING	GRAMS	CALS	FAT	PROTEIN	CARBS	Cal per 100g
Wasabi	1 tbsp	20	59	2	1	9	293
Soybean	1 cup	172	315	15	31	14	183
Garlic	3 cloves	9	15	0	1	3	170
Chickpea	1 cup	164	278	4	15	45	169
Olive	2	8	10	1	0	1	126
Lentil	1 cup	198	239	1	18	40	121
Lima Bean	1 cup	188	222	1	15	39	118
Black-eyed Pea	1 cup	171	200	1	13	35	117
Yam	1 cup	136	158	0	2	37	116
Fava Bean	1 cup	170	194	1	13	34	114
Lemongrass	1 cup	67	76	0	1	17	113
Corn	1 ear	103	116	2	4	22	112
Potato	1	173	167	0	4	37	97
Sweet Potato	1	114	107	0	2	24	94
Burdock	1 cup	125	116	0	3	26	93
Grape Leaves	1 leaf	4	4	0	0	1	93
Ginger	5 tsp	10	9	0	0	2	89
Peas	1 cup	160	137	0	9	25	86
Parsnip	1	98	76	0	1	17	77
Shallot	3	129	99	0	3	21	77
Artichoke	1	120	74	0	4	14	61
Nori	5 sheets	13	7	0	1	1	53
Horseradish	4 tsp	20	11	0	0	2	53
Onion	1	94	45	0	1	10	48
Pearl Onion	7	105	49	0	1	11	47
Chiles	1 pepper	45	21	0	1	4	47
Habanero	1 pepper	45	21	0	1	4	47
Fiddlehead	1 cup	142	65	0	0	16	46
Snap pea	10	26	12	0	1	2	45
Brussels Sprouts	8 sprouts	168	72	1	4	12	43
Snow pea	1 cup	160	68	0	5	11	43
Beets	1	50	21	0	0	5	42
Green Bean	1 cup	125	52	0	2	10	42
Broccoli	1 spear	37	15	0	1	3	41
Collard Greens	1 cup	190	77	1	5	11	41
Eggplant	1	566	227	1	5	49	40
Scallion	7	105	40	0	2	8	38
Carrot	1 carrot	46	17	0	0	4	38
Chives	.5 cup	24	9	0	1	1	38
Fennel	1 cup	87	32	0	1	6	37
Leek	1 leek	124	44	0	1	9	36
Jalapeño	1 pepper	14	5	0	0	1	35
Tomatillo	1	34	12	0	0	2	35
Kale	1 cup	130	44	1	3	7	34
Heart of Palm	1 piece	33	11	0	1	2	33
Bell Pepper	1	114	36	0	1	8	32
Spinach	1 cup	180	53	1	5	7	29
Asparagus	5 spears	75	21	0	2	3	29
Cauliflower	1 head	575	163	3	11	24	28
Cabbage	1 cup	150	41	0	2	8	28
Okra	1 cup	160	44	0	3	7	27
Swiss Chard	1 cup	175	43	0	3	7	25
Turnip	1	120	29	0	1	6	24
Bamboo Shoot	1 cup	131	31	1	2	4	23
Pumpkin	1 cup	245	57	0	2	12	23
Squash	1 cup	180	41	1	2	7	23
Tomato	1	123	26	0	1	5	21
Lettuce	2 cups	94	20	0	1	3	21
Wheatgrass	1 oz	30	6	0	0	1	20
Zucchini	1	217	40	1	3	6	19
Cucumber	1	201	36	0	1	7	18
Celery	1 stalk	40	7	0	0	1	17
Bok Choy	1 cup	170	26	0	3	3	15
Napa Cabbage	1 cup	109	16	0	2	1	15
Watercress	1 cup	34	5	0	1	0	14

CONDIMENTS

	SERVING	GRAMS	CALS	FAT	PROTEIN	CARBS	Cal per 100g
Aioli	1 tbsp	14	101	11	0	0	724
Mayonnaise	1 tbsp	14	91	10	0	0	649
Tahini	1 tbsp	15	95	8	3	3	635
Pesto	.5 cup	116	669	64	14	9	577
Thousand Islands	1 tbsp	15	59	6	0	2	394
Wasabi	1 tbsp	20	59	2	1	9	293
Hoisin sauce	1 tbsp	16	35	1	1	7	218
Tartar sauce	1 tbsp	15	31	3	0	2	207
Miso	1 tbsp	17	35	1	2	4	206
Mirin	1 oz	29	56	0	0	14	194
Gochujang	1 tbsp	32	61	0	1	14	189
Hummus	.5 cup	120	211	12	9	17	176
Barbecue Sauce	1 tbsp	17	29	0	0	7	172
Relish	1 tbsp	15	23	0	0	5	150
Chutney	1 tbsp	17	23	1	1	2	133
Ketchup	1 tbsp	17	20	0	0	5	115
Sriracha	1 tbsp	20	18	0	0	4	91
Worcestershire	1 tbsp	17	13	0	0	3	78
Mustard	1 tbsp	15	11	1	1	1	70
Soy Sauce	1 tbsp	16	9	0	1	1	58
Oyster Sauce	1 tbsp	18	10	0	0	2	54
Fish Sauce	1 tbsp	18	6	0	1	1	36
Salsa	.5 cup	72	25	0	1	5	34
Tabasco	1 tbsp	14	2	0	0	0	15

BREADS

Croutons	1 oz	28	131	5	3	18	467
Breadstick	1	6	25	1	1	4	410
Matzo	4 oz	112	443	2	11	96	396
Pretzel	4 oz	112	443	3	11	92	395
Biscotti	1	22	87	3	2	13	395
Pan Dulce	1 slice	63	233	7	6	36	370
Scone	1	115	396	16	7	56	344
Brioche	1 piece	77	263	13	6	30	341
Tortilla (Wheat)	1	41	128	4	4	19	312
Belgian waffle	1 piece	75	223	11	6	25	297
Panettone	1	113	335	6	6	63	297
Roti	1	40	118	4	3	18	294
Soda bread	1 slice	43	126	2	3	24	293
Naan	1	90	261	5	9	45	290
Challah	1 slice	40	113	2	4	19	282
Bread roll	1	28	78	2	2	13	278
Canadian White	1 slice	40	110	2	3	20	275
Baguette	1	324	882	8	35	168	272
Sourdough Bread	1 slice	64	173	2	7	33	270
Teacake	1	68	184	3	5	35	270
Pita	1	60	160	1	6	33	267
Potato Pancake	1	37	98	6	2	10	266
Potato Bread	1 slice	32	85	1	4	15	266
Brown Bread	1 slice	29	77	1	3	14	264
Bagel	1	105	277	1	11	55	263
Cornbread	1 piece	65	171	5	4	28	263
White Bread	1 slice	37	96	1	3	18	259
Banana Bread	1 piece	97	250	9	4	39	258
Ciabatta	1 slice	31	80	1	3	15	257
Whole Wheat Bread	1 slice	32	82	1	4	14	256
Rye Bread	1 slice	32	81	1	3	15	252
Pumpernickel	1 slice	32	80	1	3	15	251
Tortilla (Corn)	1	24	56	1	1	11	233
Portuguese Sweet Bread	1	83	192	1	6	41	232
English Muffin	1	57	131	1	4	26	229
Pancake	1	40	90	4	3	11	224
Spelt Bread	1 slice	51	103	5	2	13	202
Sprouted Bread	1 slice	40	77	0	5	14	193
Scallion Pancake	1	100	172	4	4	29	172
Dosa	1	97	165	4	4	29	170
Crêpe	1	64	103	5	4	10	161

Journal

Self-evaluation is the quickest way to begin the process of stress relief. In this section we have provided a template for you to use in order to measure your progress.

None of the sections need to be filled out perfectly just do as much as you can and be open and honest in your responses.

The following section includes:

Weight Log

Daily Journal

Weekly Journal

Quarterly Journal

My Routines

Time Blocks

Traits Directory

Daily Journal

Date _____

How am i feeling about this day ahead?

1 2 3 4 5 6 7 8 9 10

What is the most important task I need to do?

What Traits do I need to invoke today?

Any additional thoughts?

Date _____

How am i feeling about this day ahead?

1 2 3 4 5 6 7 8 9 10

What is the most important task I need to do?

What Traits do I need to invoke today?

Any additional thoughts?

Date _____

How am i feeling about this day ahead?

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Daily Journal

Date _____

How am i feeling about this day ahead?

1 2 3 4 5 6 7 8 9 10

What is the most important task I need to do?

What Traits do I need to invoke today?

Any additional thoughts?

Date _____

How am i feeling about this day ahead?

1 2 3 4 5 6 7 8 9 10

What is the most important task I need to do?

What Traits do I need to invoke today?

Any additional thoughts?

Date _____

How am i feeling about this day ahead?

1 2 3 4 5 6 7 8 9 10

What is the most important task I need to do?

What Traits do I need to invoke today?

Any additional thoughts?

Weekly Journal

Date _____

How effective have I been communicating with people around me?

1 2 3 4 5 6 7 8 9 10

Could I improve my communication? How?

Is there anyone I should reach out to? What should be the topic of conversation?

How Focused was I this week?

1 2 3 4 5 6 7 8 9 10

What actions could I take to improve my focus?

Any new or lingering situations to address?

Quarterly Journal

Date _____

Which parts of my day require my total presence? How might they be impacted this quarter?
How will I adjust?

Are there any personal projects I would like to start or continue this quarter?
What actions are needed to pursue my personal projects?

Any subjects I want to learn more about?
What actions do I need to take in regards to continuing education?

Do I need to clear anything up with anyone?

Is there anything I need to let go of?

My Routines

When writing out your primary routines, stick to tasks that you know you can do on a daily basis

My Morning Routine

My Bedtime Routine

My _____ Routine

My _____ Routine

Notes

Time Blocks

Each block represents 15 minutes, this should be used as a time management tool to help stay focused

_____ Day

12:00 am

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11:45 pm

Itinerary

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Traits Directory

A	Competitive	Focused	Modest	Restrained	Unpredictable
Abrasive	Conciliatory	Forgiving	N	Romantic	V
Abrupt	Confident	Formal	Neat	S	Venturesome
Accessible	Confidential	Forthright	Neutral	Scholarly	W
Active	Conscientious	Freethinking	Noncommittal	Scrupulous	Warm
Adaptable	Conservative	Friendly	Noncompetitive	Secure	Well-read
Admirable	Considerate	Frugal	O	Self-critical	Well-rounded
Adventurous	Contemplative	G	Objective	Self-reliant	Whimsical
Aggressive	Cooperative	Generous	Observant	Self-sufficient	Willful
Agreeable	Courageous	Gentle	Open	Selfless	Wise
Alert	Courteous	Genuine	Opportunistic	Sensitive	Witty
Allocentric	Creative	Glamorous	Optimistic	Sentimental	Y
Ambitious	Cerebral	Gracious	Orderly	Serious	Youthful
Amiable	Cultured	H	Organized	Simple	
Amoral	Curious	Hardworking	Original	Skeptical	
Anticipative	D	Healthy	Outspoken	Skillful	
Apathetic	Daring	Heartly	P	Smooth	
Appreciative	Decent	Helpful	Passionate	Sober	
Artful	Decisive	Heroic	Paternal	Sociable	
Articulate	Dedicated	Honest	Patient	Soft	
Aspiring	Deep	Honorable	Patriotic	Solemn	
Assertive	Delicate	Humble	Peaceful	Solid	
Athletic	Demanding	Humorous	Perceptive	Solitary	
Attractive	Determined	I	Personable	Sophisticated	
Authoritarian	Dignified	Idealistic	Persuasive	Spontaneous	
B	Disciplined	Imaginative	Physical	Stable	
Balanced	Discreet	Impressionable	Playful	Steadfast	
Barbaric	Disruptive	Impressive	Polished	Steady	
Benevolent	Dramatic	Incisive	Practical	Stern	
Big-thinking	Dutiful	Independent	Precise	Stoic	
Bizarre	Dynamic	Innovative	Principled	Strict	
Blunt	E	Inoffensive	Profound	Strong	
Brilliant	Earnest	Insightful	Progressive	Studious	
Businesslike	Efficient	Intelligent	Proud	Stylish	
Busy	Elegant	Intense	Provocative	Suave	
C	Eloquent	Intuitive	Prudent	Subjective	
Calculating	Emotional	K	Purposeful	Subtle	
Calm	Empathetic	Kind	Punctual	Sweet	
Capable	Energetic	L	Q	Sympathetic	
Captivating	Enthusiastic	Liberal	Quiet	Systematic	
Caring	Esthetic	Logical	R	T	
Casual	Exciting	Lovable	Rational	Tasteful	
Cautious	Experimental	Loyal	Realistic	Thorough	
Charismatic	Extraordinary	M	Reflective	Tidy	
Charming	Extreme	Magnanimous	Relaxed	Tolerant	
Cheerful	F	Maternal	Reliable	Tough	
Clean	Fair	Meticulous	Reserved	Transparent	
Clear-headed	Faithful	Mature	Resourceful	Trusting	
Clever	Farsighted	Mellow	Respectful	U	
Colorful	Firm	Methodical	Responsible	Understanding	
Compassionate	Flexible	Moderate	Responsive	Undogmatic	

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