

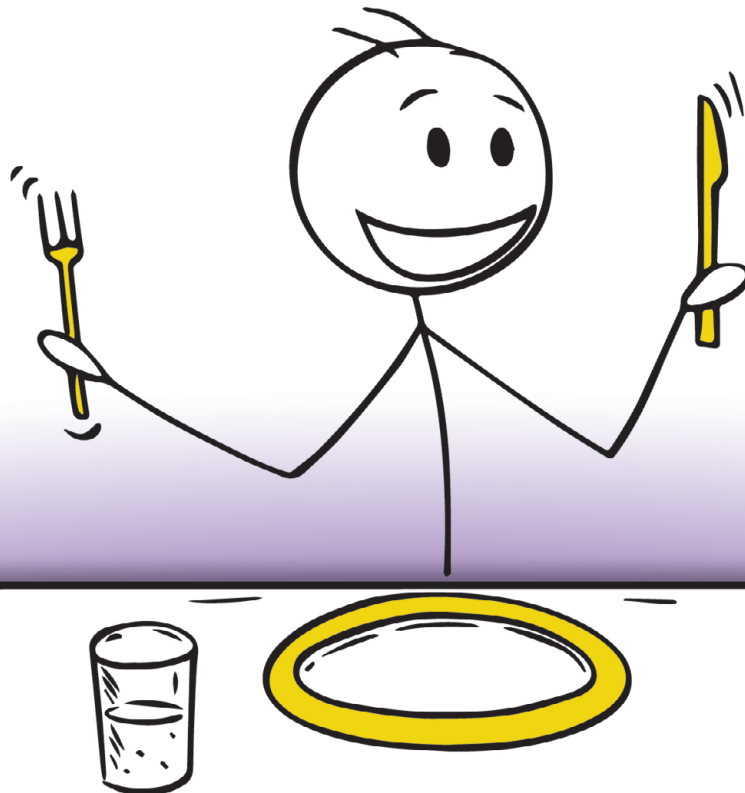
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Peak Optimization Performance

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# NUTRITION FUNDAMENTALS

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# TABLE OF CONTENTS

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**Chapter 1:** Nutrition Fundamentals

**Chapter 2:** Energy Balance

**Chapter 3:** Caloric Maintenance or  
Total Daily Energy Expenditure (TDEE)

**Chapter 4:** Macronutrients

**Chapter 5:** Micronutrients

**Chapter 6:** Meal Timing & Frequency

**Chapter 7:** Supplements

# CHAPTER 1

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## NUTRITION FUNDAMENTALS

The basics of nutrition will get you very far in your journey. When you look at every successful transformation, they all have one thing in common: consistent execution of the basics for a long period of time.

We all want to believe there's a shortcut or some secret to success that we don't know about yet, but the reality is that the advanced methods of nutrition often serve nothing more than a distraction from what really matters. Execute the fundamentals consistently (note: I did not say perfectly) and you'll be well on your way to achieving your health and fitness goals.

Consider the following lessons the foundation for everything that you do with regards to nutrition. You will see amazing results by just following these basic principles over a long period of time.

It's not flashy, it's not sexy, but it's 100% necessary. You wouldn't try to drive a fancy car with 4 flat tires and a shotty engine, right? So consider this the engine, tires, gas, and all the internal workings of your car.

The most important thing, above all else, is your mindset.

Oh, you thought I was going to say calories?

We'll get into the calories discussion in a bit but mindset is number one. The reason is simple, if you can't adhere to or sustain what you're doing, calories and macros are irrelevant.

Most people view their dietary protocol as a temporary solution. That will yield a temporary result.

If you're not in this for the long game or able to see the big picture, you will fail.

Just like with training, there are times for overreaching, the same can be said about dieting, there's a time and place to get more extreme.

If you're trying to compete or get on stage or perform at an extremely high level, you're probably going to spend time doing things that are unsustainable long term. That's part of the plan.

This is not what I'm referring to. I'm referring to the average person who just wants to get fit and healthy and look better naked.

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We can't view nutrition as something we're either "on" or "off." We can't view our approach as something we'll do until we reach a certain point and then go back to our previous habits.

We have to begin to identify as a fit and healthy person. Someone who prioritizes themselves enough to know that every single person around them deserves the best version of themselves.

Food is not just fuel. Yes it's energy. It's also emotion. It's social. It's experience. It's pleasure.

We can look at every study on calories in vs calories out until we're blue in the face, but we can't ignore the human element.

There's a reason why you're yo-yo dieting. There's a reason why you're self sabotaging. There's a reason why you're hyper focused on the scale. There's a reason why you're not patient enough to see the rewards of your hard work.

I can tell you that for most people, all of the above scenarios indicate a flawed mindset.

You're either still identifying as an unhealthy person, don't think you're worthy of progress, are afraid of change, or holding on to some ingrained, self limiting belief.

You don't need to completely fix all of your mindset hurdles right now. You just need to be aware of them.

Every single process for growth starts with self awareness.

Once you have that information and awareness, it's up to you to take action.

Now let's dive in...

## CHAPTER 2

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# ENERGY BALANCE

Tracking and understanding your energy balance (calories in vs calories out) is the most accurate depiction of your total daily energy expenditure.

Often times, tracking intake is met with resistance or has a negative connotation because it can be seen as too rigid or unrealistic as a lifelong endeavor.

There is absolutely some validity in those arguments.. For example, if you're someone who stresses out about going out to eat because you can't account for every single calorie, that's a sign of disordered eating.

If tracking calories feels like a daily chore and major stressor, that's a sign that you probably shouldn't be doing it for the rest of your life.

However, I believe that it's a practice that everyone should do at least once in their life.

For the simple fact that it helps us gain an understanding of what our daily nutrition habits look like and it's the best form of education for knowing what our bodies respond best to.

Think of it like this.. If you were going to budget your money, you would want a clear picture of how much money is coming in and how much is going out.

Spending some time to understand your individual energy balance is the same thing.

Many people want to know if they can achieve results with intuitive eating. Absolutely!

However, my opinion is that intuitive eating needs to be learned.

There are several reasons for this but it mainly has to do with the nature of our current culture and food environment.

We evolved in an environment of food scarcity. Now we have food abundance.

We evolved being surrounded by real, one ingredient foods. Now we are surrounded by chemically processed, hyper-palatable foods.

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We evolved to mostly handle acute stressors. Now we are dealing with chronic stress like we never have before.

For all of these reasons, we are more disconnected from our intuitive signals than ever.

A couple of examples and one study to illustrate this point a bit further:

Imagine eating a bowl of plain boiled potatoes. No salt, no butter... just straight up boiled potatoes. Think about eating them until your natural signals of satiety kick in.

Now imagine eating a bowl of potatoes, deep fried in low grade oil with added fats and salt (aka potato chips or fries). Think about eating them until your natural signals of satiety kick in.

I would venture to guess that 100% of the time you will eat way more of the highly processed potato chips or fries than the plain boiled potatoes. Foods that are engineered to override our signals of satiety, trigger a reward response in our brains through a dopamine spike, and hijack the natural process of palate fatigue are difficult to eat intuitively.

If you're thinking, well then I can just eat ONLY unprocessed food, remember what I said above. Food is more than just energy! It is pleasure. Social. Emotion. And more.

Accounting for your energy intake is a great way to practice moderation and flexibility with foods that taste great but don't necessarily provide much in terms of nutrient value and it helps you understand portion control.

A recent study by Kevin Hall shows how easy it is to overeat highly processed foods when compared to an unprocessed diet ([https://www.cell.com/cell-metabolism/pdf/S1550-4131\(19\)30248-7.pdf](https://www.cell.com/cell-metabolism/pdf/S1550-4131(19)30248-7.pdf))

Another example to consider:

Imagine you're getting ready for work in the morning. The alarm goes off, you're rushing to get ready, coffee is being made, kids are getting up for school, and you want to get to work on time.

You woke up pretty hungry so you throw together a quick breakfast and proceed to chow down before heading out the door.

Consider how likely you are to be in tune with your body at that moment. Do you think it's likely that you'll pay attention to being full? Or even how that food choice is making you feel?

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I think the idea of intuitive eating is great and should be something to strive for. The same way we get a better grasp on our finances with practice and review, that's the mindset to enter in this world of tracking your intake.

The way I like to think about the process of counting calories and macros is that discipline = freedom.

When I'm aware of what I'm consuming, it allows me to "budget" for things like dinner and drinks with friends, brunch, pizza night, etc.

The ultimate goal is to develop habits that last a lifetime. I fully plan on being social for the rest of my life but I also want to be fit and healthy. This practice can help you achieve both and sustain it long term.

As I mentioned, tracking is not something that everyone needs to do forever, but it's the most accurate and efficient way to learn and make progress.

The two things that I highly recommend to get started is:

1. A digital food scale (more accurate to weigh in grams and ounces than use measuring cups)
2. An app like MyFitnessPal (there are others but MFP is my favorite)

Once you have that, we can apply an unbreakable law of thermodynamics. Calories in vs calories out.

In order to achieve fat loss, you must be in a calorie deficit (you must burn/expend more than you consume).

What about hormones, gut health, menopause, thyroid function, exercise, etc? They are all things that impact the calories in vs calories out equation, but the principle still holds true.

Since we're mastering the basics of nutrition, we must start with calories first!

## CHAPTER 3

# CALORIC MAINTENANCE OR TOTAL DAILY ENERGY EXPENDITURE (TDEE)

Total daily energy expenditure is comprised of 4 variables:

- BMR (basal metabolic rate)
- TEF (thermic effect of food)
- NEAT (non exercise activity thermogenesis)
- EAT (exercise activity thermogenesis)

NEAT (every activity or movement made outside of the gym like walking, fidgeting, chores, etc) is the most variable factor for TDEE and can range from 10-50% depending on the person.

To keep things simple, we want to calculate BMR and then use an activity multiplier to find a TDEE estimation or utilize the track and average method.

Depending on your goal, we're either going to set up a calorie deficit, calorie surplus, or stay at maintenance.

You can hop on Google and use a calculator that will spit out an estimate for your TDEE.

There are fancy equations like this:

$$\text{Female BMR} = (\text{height in centimeters} \times 6.25) + (\text{weight in kilograms} \times 9.99) - (\text{age} \times 4.92) - 161$$

$$\text{Male BMR} = (\text{height in centimeters} \times 6.25) + (\text{weight in kilograms} \times 9.99) - (\text{age} \times 4.92) + 5$$

There are also basic equations like this:

$$\text{Bodyweight} \times 10$$

In both scenarios, you would use an activity multiplier to come up with your TDEE.

Depending on how active you are throughout the day (do you sit all day for work or stand? Do you walk a lot? Do you exercise a lot? Etc)



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Based on activity you would multiply that BMR number by:

- 1.2 - extremely sedentary
- 2.0 - very active

You don't have to pick one or the other! Anything in between that range will work as an estimate based on your assessment on daily activity.

Keep in mind that any calculator or estimation is NOT going to be the most accurate! The main objective is to find a starting point.

CAUTION: If you currently track calories and your estimated TDEE is very different from what you're currently consuming, do not just jump right into the estimated number!

For example, if you're eating 1200 calories per day and you plug your info into a calculator and it tells you to eat 1900 calories per day, jumping right from 1200 to 1900 will likely cause some unwanted fat gain.

For this reason, I strongly recommend the more accurate method of finding maintenance.

Track your daily intake and your daily weight. Calculate your calorie average for the week as well as your weight average for the week (the scale will always fluctuate on a day to day basis so that's why we look at the average).

After 2 weeks of tracking, assess what's going on. Is your weight average going down? Then you're likely in a deficit. Is it going up? Then you're likely in a surplus.

If your weight average is the same (give or take a couple ounces) then that's your true maintenance.

From there, we can set up the deficit or surplus in accordance with your goals!

Keep in mind there are going to be outliers and individual variance across the board which is why I strongly recommend working with a qualified coach.

The most effective protocol for fat loss or muscle gain will depend on your Neurological profile as well as the context of your life. We can't forget the number one rule: adherence and sustainability!

Now that we've established maintenance calories, let's dive into macros!

# CHAPTER 4

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## MACRONUTRIENTS

Simply put, macros are what all of our calories are comprised of. They are the nutrients (protein, carbs, fats) that make up our diet and the ones we need in large quantities.

Our calorie totals will be broken down by macronutrients:

- **Protein** - 4 calories per gram
- **Carbohydrate** - 4 calories per gram
- **Fat** - 9 calories per gram

*\*Some people consider alcohol the 4th macro, although I disagree with calling it a macronutrient, it does contain 7 calories per gram so it will impact total calorie intake.*

While calories are most important for weight loss and weight gain, macronutrients are extremely important for body composition (the ratio of muscle to fat on our bodies)

You can eat in a calorie deficit, lose weight, but not be happy with appearance if a lot of that weight loss is from muscle (giving the skinny fat appearance).

On the other hand, you can potentially stay weight stable but be very pleased with body composition if you were to gain 5 pounds of muscle but lose 5 pounds of fat (giving a leaner, more fit appearance).

This is why macronutrient composition is so important.

The ratio of macros will depend on age, gender, training history, goals, body composition, Neurotype, and personal preference.

Let's discuss some basic considerations.

### Protein

Protein is the logical place to start because there won't be much variance when it comes to protein intake. For MOST people, we can set it and forget it. Now, as your goals and body composition changes, we may need to make adjustments, but it's pretty straightforward.

Protein is the building block for muscles and provides a number of benefits to almost every system in our body.

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It's an essential nutrient, meaning we need it to survive, and it assists in rebuilding tissue, hormone production, hair and skin growth, immune function, etc.

When it comes to improving body composition, protein should be a top priority. The reason is that during resistance training, our body breaks down muscle tissue. Adequate protein intake is necessary to provide the raw materials to rebuild the damaged muscles. Consuming protein will result in an increase in muscle protein synthesis (MPS) and if we net a greater amount of MPS vs muscle protein breakdown, then we build muscle.

Protein also has some other benefits such as a high thermic effect of feeding. In other words, your body requires more energy to break down and digest protein than any other macronutrient.

It's also the most difficult macro to store as body fat because it's energy demanding to make that conversion.

When it comes to dieting, protein is the most satiating macro so it makes sense to dial in your protein consumption when you're looking to achieve body comp goals.

We'll get into more specific recommendations when we break down nutrition for each Neurotype but most people do well with a protein target ranging from .7-1.5g/lb of bodyweight.

## **Fat**

Fats are the most calorically dense of the macronutrients coming in at 9 calories per gram of fat. They are essential so we need to consume fats to survive.

Most importantly, dietary fat is the precursor for many important hormones and also aids in neurological function.

Fats provide a sustained energy source, most often used in low intensity activities like walking. They also aid in nutrient absorption (fat-soluble vitamins as an example) and help to maintain core body temperature.

The range of fats in a macro prescription will vary drastically depending on the person. We will discuss in depth as we break down protocols for each Neurotype.

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## Carbohydrate

Carbs are non essential so we don't actually need them to survive but there's a big difference between just surviving and feeling our best.

When it comes to performance, carbs reign supreme! They are the preferred fuel source during high intensity activities like resistance training, sprinting, or even long distance efforts above a certain threshold.

Carbs will also aid in hormone production, thyroid support, and balancing hunger hormones.

When it comes to recovery, increasing strength, and improving performance, carbs are extremely important. Resistance training will deplete muscle glycogen and carbs will help replenish those stores so that we can adequately recover and perform again. They are also protein sparing (as are fats) so when carbs are present, protein can do its job of rebuilding muscle tissue.

Many people don't realize that vegetables are carbs! So from a nutrient standpoint, and getting adequate fiber, carbs help many important metabolic functions.

Carbs have been demonized with the growing popularity of a ketogenic diet and many people associating carbs with "bad" foods and high sugar.

However, most highly processed, hyper-palatable foods are made up of both refined carbs and high fat.

There is nothing inherently wrong with sugar. We must remember that the calorie balance equation will always reign supreme. It's also important to consider sustainability. So while there is nothing inherently wrong with a ketogenic diet either, it's important to assess whether that's sustainable for the average person long term.

The carbohydrate prescription will also vary greatly depending on the individual and neurological profile, which we'll discuss shortly!

To illustrate the individual variance that can occur from person to person, when setting up a macro prescription, here is the general flow:

1. Determine Calorie Target
2. Set protein (typically .7-1.5g/lb of bodyweight)
3. Set fats (15-70% of total calories)
4. Set carbs (whatever is left)

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As you can see the range for fats and carbs is crazy! That's because it depends on so many factors like age, gender, goals, body comp, training, Neurotype, personal preference, etc.

Let's wrap up the foundational principles of nutrition and then we'll get into more precise protocols.

Next on the agenda are MICROS.

# CHAPTER 5

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## MICRONUTRIENTS

I'm sure by now you've seen internet gurus debating each other over food quantity vs food quality.

It's time to change the conversation to food quantity AND food quality. They both are incredibly important when we're talking about health and longevity.

So now that we've broken down our calories into macronutrients, we can break things down even further into micronutrients. Essentially we're talking about the vitamins and minerals that exist in our food choices.

When we're tracking and hitting our macro targets, paying attention to the quality of those choices will make a difference in how you perform and how you feel.

For example, 50g of carbs from gummy bears will contain a very different nutrient profile than 50g of carbs from sweet potatoes. Even though they both can help you achieve body composition improvements, it's important to understand the difference in quality.

Micronutrients are essential and many health issues can be solved by fixing deficiencies. Many people are deficient in vitamin D, omega-3 fatty acids, and magnesium, as an example, and we should always look at nutritional adjustments before relying on supplementation.

The potential for nutrient deficiencies will depend on your age, gender, body comp, food choices, activity levels, etc.

We're not going to get into all of the different vitamins and minerals and the role they play in the body. There are plenty of resources out there if you want to nerd out on that information.

To keep things simple, we're going to breakdown a simple strategy to ensure we're getting plenty of nutrient-rich foods in our diet.

1. Eat lots of vegetables - a simple rule of thumb is 1-2 servings of veggies per meal or 600-800g of veggies per day
2. Eat the rainbow - keep a variety of different colors in your diet
3. Spice it up - use different herbs and spices to flavor your meals
4. Don't fear fruit - 1-2 servings of fruit per day

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5. 80/20 rule - 80% of your food choices should be whole, nutrient-dense foods. That leaves 20% open to have a little more fun :). When you're pursuing a specific fat loss goal or more aggressive results, that ratio should be closer to 90/10.

Staying consistent with calories, macros, and micros will be the foundation of nutritional success long term. Those are the big rocks that will always yield success.

Once we nail those down and they become second nature, we can look into more advanced strategies that will make a small difference.

Let's briefly discuss some of those topics before getting into the specific protocols for each Neurotype.

## CHAPTER 6

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# MEAL TIMING AND FREQUENCY

There are two important things to remember when we discuss meal timing and frequency.

First, don't forget the golden rule of adherence and sustainability. Even if it's optimal for you to consume 5 meals per day, but your schedule is such that it's very challenging to do so, it's not worth it! We have to remember that consistency over a long period of time is better than perfection for a short but unsustainable period.

Second, the big rocks still reign supreme. We don't want to sacrifice calories and macros just for the sake of meal timing and frequency. Remember that these are advanced strategies that only move the needle a little bit.

Having said that, there are certain areas that we can optimize through meal timing and frequency.

1. Getting in the proper training zone
2. Maximizing each training session
3. Recovery from training
4. Neurotransmitter balance
5. Hormonal balance

This is going to look different for each neurological profile. Depending on your personality type, some will need to be amped up to train, others will need to be calmed down.

Some will do better with pre-workout carbs, other will do better fasted.

Some will do better with intermittent fasting, others will do better with more frequent meals.

We are going to break down these strategies for each Neurotype but I first wanted to set the stage that we're talking about advanced protocols.

If it feels overwhelming to follow and particular meal timing or frequency method, just stick to the basics and you'll be fine!

The last general topic to cover is supplements. First, I'm going to cover a more general overview of supplements and then we'll break it down by each Neurotype.



# CHAPTER 7

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## SUPPLEMENTS

I have a love/hate relationship with supplements. There is no doubt they can be useful in the context of a well constructed nutrition plan.

However, most people jump to supplements way too soon.

Just consider the name.. Supplements. They are supposed to supplement an already effective protocol!

Too often they are used as a band aid fix. For example, someone taking a fat burner but not eating in a calorie deficit. Or someone taking a fat burner in general :).

Think of supplements as the 1%. Once everything else is dialed in and consistent, then a supplementation protocol can help us move the needle just a little bit more.

The other issue with supplements is that most people don't know the quality of what they're getting or the dosage needed to be effective.

Do your research!

One of my favorite resources for this is [examine.com](https://www.examine.com).

Check on the brand as well and make sure they're a reputable source.

I'm going to give my list of supplements that most people can benefit from once the foundational pieces are dialed in.

We'll have specific recommendations on a supplementation protocol for each Neurotype in that section.

General supplement considerations:

- Fish Oil
- Vitamin D
- Creatine
- Protein Powder
- Collagen
- CBD Oil
- Ashwaghandha
- Magnesium
- Greens Powder
- Tumeric

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I certainly don't recommend that you go out and buy all of those supplements right now!

Ideally we look at our food choices first before turning to supplements. Also, if you have a specific vitamin or mineral deficiency then that would take precedence.

Lastly, do your research first and decide if it's something you'd like to try. If so, add one supplement at a time and give it a few weeks to see if you notice a difference.