



Basic Nutrition Principles

**Serving the elements of basic nutrition
in easy-to-digest bite-size pieces.**

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Nutrition is really a simple concept, but social media and businesses have turned it into a very confusing topic. Trust me, I used to be very confused too. There's so much information available to us online that it can be overwhelming for us to really know what's what. Being in this industry for over 5 years now, I've grown way past the basics of nutrition, but I understand that not everyone has evolved in the same way.

I created this eBook to bring us all back to the basics of nutrition; what's really important and what we need to focus on more so than others.

Thank you for taking an interest in my ebook, and I truly hope you enjoy all that you learn!

Courtney Ustrzycki

Owner of Courtney For Life, nutrition expert and fitness coach

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ONE

UNDERSTANDING THE FUNDAMENTALS OF NUTRITION

Nutrition has been a topic of research since the 1700s, but since social media made its impact on the world, we've become bombarded and overwhelmed with everything we read. We've been pushed to believe that fats make us overweight, eating carbs after the sun does down can cause fat gain, not eating carbs is healthy and sustainable, we need to have visible abs in order to be considered healthy, and that weighing less means that we will be happy. And all of this couldn't be more far from the truth. We're taking it back a few (thousand?) steps and breaking down nutrition into its simplest forms in these pages; understanding the basics and focusing on what's really important, no matter what nutrition preferences you have.

Nutrition is the process of providing or obtaining food that's needed for healthy body maintenance, growth, reproduction; it's nourishment.

The six main elements of nutrition are (in no specific order):

1. **Proteins** – maintenance of body's lean mass and promotes additional muscle development; keeps immune system strong
2. **Carbohydrates** – your body's main energy source; broken down into fibres, sugars, and starches
3. **Fats** – insulate your body for healthy blood flow, protects your organs and joints, balances hormones, and promotes optimal cognitive function
4. **Vitamins** – 13 necessary vitamins for the body to develop and grow (four fat-soluble and nine water-soluble)
5. **Minerals** – major and trace types, all important for healthy body development
6. **Water** – regulates body temperature, helps maintain healthy joints and organs, transports oxygen throughout body

The first three (proteins, carbohydrates and fats) are macronutrients, meaning your body requires these in large quantities, which is why flexible dieting is a great nutrition protocol.

A lack of the necessary elements can result in a weakened immune system and a higher risk of sickness, and nutrient deficiencies like iron anaemia.

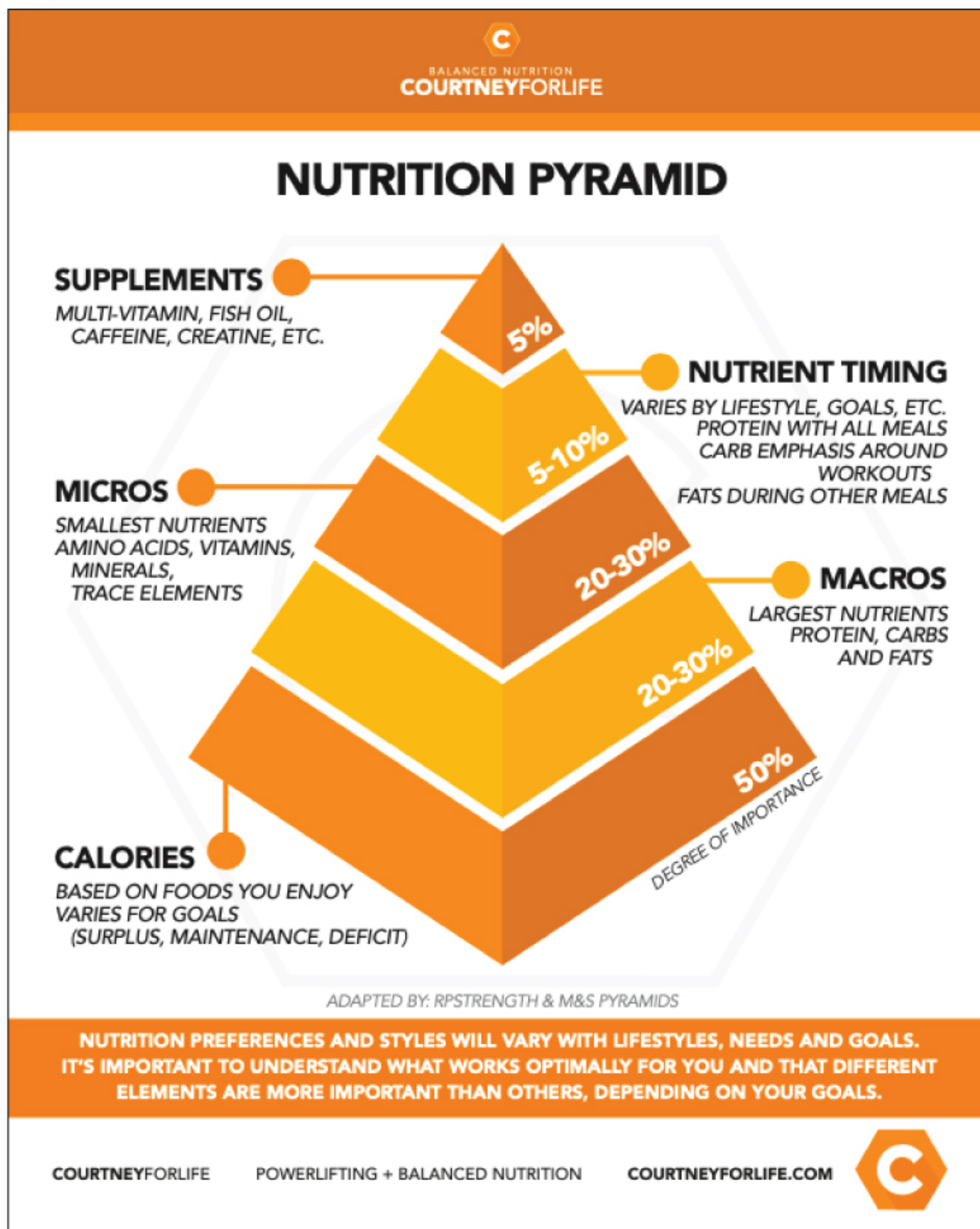
Sticking to these six elements is fundamental for balanced nutrition. Getting into the finer details like supplementation is of lesser importance, but we'll review that in a later chapter.

TWO

HIERARCHY OF IMPORTANCE - NUTRITION PYRAMID

If you've ever been confused about nutrition, this is the visual reference you need to know! When you can understand this hierarchy of importance, you'll be able to get a much better understanding about nutrition needs and what's really most important. Otherwise, you're just wasting both your time and money.

I get asked more times about what supplements to take over caloric intake, and that's because social media has made us believe that supplements are game-changers. But the truth is, none of them matter if you don't have the foundational elements locked-down first. You cannot out-supplement an unbalanced diet, and that's a fact.



1. **Calories** – this is your energy balance, and honestly one of the most ignored elements. This crucial element determines your body weight and whether or not you can/will gain muscle, lose fat or maintain your composition. Ultimately, any time you want to change your body, this is the most vital element for success.
2. **Macronutrients** – once total calories are understood, then looking at the large nutrients the body needs: proteins, carbohydrates and fats. Understanding these and adjusting them to your individual body's needs, genetics, lifestyle and goals can help you to progress much more than simply caloric intake.
3. **Micronutrients** – including vitamins and minerals; ignoring these can impact longterm health including deficiencies and training performance. Vegetables and fruits are a great way to get in a good amount of vitamins and minerals. Being aware of what your body absorbs and processes can help improve your progress*
4. **Nutrient timing** – when you eat is of lesser importance as we climb this pyramid. As long as you're getting in the calories (first) and nutrients (second and third) then timing can be factored in. This comes down to the lifestyle and goals of each person. Balancing all macronutrients throughout your daily meals is the most simple way of applying nutrient timing for most people. But to dig in a bit deeper, here are my top tips for the average person:
 - protein intake spaced evenly throughout all meals. Evenly spaced out protein intake can help promote more regular muscle protein synthesis (MPS) but it's not a make-or-break concept if you have more protein at one meal than another.
 - push more carbohydrates around pre- and post-workout meals to increase training output and recovery. Simple digesting carbs will feel better when you eat more (digestion) like white rice and fruits. Slower digesting carbs like veggies, brown rice, potatoes and oats will help you to feel more full for longer.
 - fats around other meals of the day (example: if you eat 5 meals a day and you workout in the morning, then meals 1 and 2 are higher in carbs, and have meals 3, 4, 5 higher in fats)
5. **Supplements** – the smallest part of the pyramid; literally only about 5% of importance. They can help to improve athletic performance, and some can be more important depending on genetics and what your body is able to absorb*

****AGS Health & Wellness Genetic Testing***

The answers to many of our nutritional needs lie in our genes. These are our undoubtable facts that are programmed into our body; they don't change over time. Understanding more details about how your body works can be an incredible game-changer when we have more specific health-, performance-, and physique-related goals. The AGS HWGT examines:

- *macronutrient ratios for your body (proteins, carbohydrates, fats)*
- *beverages that affect your metabolism (caffeine, alcohol, lactose)*
- *vitamins and supplements (absorption and availability of 7 important elements)*
- *behaviours (cravings, emotional eating and addictions)*
- *exercise (performance versus power output, injury potential)*
- *stress (short- and long-term responses)*

My YouTube video covers my personal test in much more detail so you can fully understand this one-time life-changing health test. Click [HERE](#) to watch the video. I have a Athlete discount code included in the video's notes.

THREE

FUNDAMENTALS OF A NUTRITIOUS MEAL

What does a nutritious meal look like? Well, everyone's needs are going to be different, but these are a few of my biggest tips and takeaways that I've learned between my own person habits, scientific research, and my Athletes' behaviours:

- quality over quantity – choose higher quality foods that are more whole and less processed. Leaner protein sources with less fats, but adding in healthier fatty sources, and plenty of vegetables
- some form of fruits and/or vegetables at every meal – of course raw vegetables are going to offer the most micronutrients for your body, but sometimes they can be hard to digest
- protein at every meal
- foods that have an expiry date attached to the label (or packaged foods) should be consumed in lesser quantities

Top mindful meal tips:

- get away from screens when you're eating. Don't sit in front of a computer, TV or your phone while eating
- pay attention to your chewing; fully chew your food to ensure proper break-down. The purpose of your teeth is to break down the foods so that your stomach can fully digest and absorb the nutrients
- use a smaller plate; having a large plate likely leads to consuming more than necessary
- fill up on vegetables first
- foods with fibre will help keep you feeling more full and promotes good digestion and regularity
- healthy fats slow down the absorption of protein, making you feeling more satiated for longer

FOUR

CONSUMING 'ENOUGH' FOR STRENGTH TRAINING

When we incorporate strength (resistance) training into our lifestyle, our body's needs can change. If we want to increase the quality and amount of muscle mass on our bodies, we need to ensure we are consuming enough calories to support this.

From the baseline of what our body needs for daily maintenance of weight and energy, we can increase carbohydrate intake, especially around pre- and post-workout meals. The more useful energy we can fuel our bodies with prior to a strength session, the better we can perform. The more useful energy we can replenish our bodies with after a strength session, the quicker we can recover and the more likely we can increase muscle volume.

Increasing protein intake can help with strength training performance and overall muscle growth. It's a common misconception that eating more protein than what our body needs can result in either getting 'too big' (**cough, ladies, cough**) or the excess being stored as fat. Neither of these are true. We don't need to be consuming an abundance of protein in our daily intake, but a little bit more than our baseline macronutrient needs can help increase our MPS and can absolutely benefit muscle growth.

Options to help increase strength training performance can include carb cycling, where we intake more carbohydrates on our workout days, but remember when we refer back to the nutrition pyramid (Chapter 2), that nutrient timing is of lesser importance than calories (first) and macronutrients (second.)

Feeling overly sore after a workout isn't always a good sign. When we feel very sore after a workout, that's usually a sign of two things:

1. We trained hard, of course, but we tore our muscle fibres. Ultimately, that is exactly what muscle growth is though: we tear our muscle fibres in the gym, then when we recover with proper nutrition and rest, that's when the muscle repair and grow even bigger.
2. This also means that we might not be eating enough of the right macronutrients (or overall calories) that our body needs in order to recover.

FIVE

BEING IN A CALORIC DEFICIT

If we search “how to be in a caloric deficit” on Google, we get bombarded by bullshit:

How to create a calorie deficit?

“Eat less food. If you cut your portion sizes, cut back on snacking and choose lower-calorie foods at mealtime, you’ll consume fewer calories each day.” (verywellfit.com, 2019)

How much of a calorie deficit should I have?

“One pound of fat is around 3,500 calories, and safe fat loss is one to two pounds per week.” To lose one pound of fat per week, you’d need a 500-calorie deficit each day.” (self.com, 2018)

How many calories should I eat to lose 5 pounds in a week?

“Most weight loss plans will recommend getting 1,200 to 1,500 calories a day, which is generally a good range to aim for whether you plan on losing 5, 15, or 50 pounds.” (healthline.com, 2015)

Often times we instantly assume we need to create a severe restriction, either in the form of way less calories, cutting out a food group or a large quantity of a macronutrient, or both. In short, to be in a caloric deficit you need to be consuming less calories than what your body needs to maintain it’s current state. How much is going to be very dependant on each person. One person could consume 200 calories less a day, where as one person could consume 800 calories less a day, and they could both still make good progress; it depends on their lifestyle, current intake, needs and goals. It’s important to think of any deficit as healthy and sustainable. Drastic slashes in calories doesn’t give long-term health benefits, and really only takes short-term progress into account.

With the body’s main energy source coming from carbohydrates, it makes sense to pull from those calories first. But that does not mean all of those calories from carbohydrates need to be removed! It’s ‘trendy’ and ‘popular’ to follow the keto diet, but actually most people who say that are doing it, really aren’t.

There’s a big difference between low carbs and keto. Putting the body into a metabolic state of ketosis involves the liver’s production of ketones when the body’s blood sugar is in very short supply. To ensure your body actually goes into a state of ketosis, it’s recommended to be testing daily ketone levels; this is usually done by peeing on a piece of paper in the morning. In all honesty, it’s not easy. Common side affects include: fatigue, headaches, irritability, cramps, constipation, the keto flu, bingeing, and rapid fat re-gain.

Instead of trying to be drastic and looking for the fastest way to lose weight (which, by the way, also risks muscle loss when the weight loss is too quick!) opt for a more balanced approach. Understand where your body currently is for sustainable maintenance without much of a scale fluctuation, and then slowly play around with decreasing your intake. Simple swaps like less rice and more vegetables can keep your meal volume the same but changes the amount of carbs you’re consuming. There’s not a big need to cut back on proteins or fats.

Keeping protein intake higher (or at least the same) during a caloric deficit is proven to be more sustainable and ensure we maintain muscle quality. It can provide more satiation. Keeping fat intake the same will ensure hormones aren’t negatively affected and that all body systems are still working optimally.

Think of it this way: the more drastic your changes from your regular ‘maintenance’ routine, then the more like you are to rebound. Slow and healthy is the way to go. Fast doesn’t always equal successful or healthy. Stay mindful of your body’s signs, your energy levels, and make sure you are fully recovering as needed.

SIX

VITAL LIFE NUTRIENTS THAT AFFECT NUTRITION

These three elements can absolutely affect your nutrition and your progress, no matter what your goals are.

Hydration

Water intake is crucial for optimal health, as it flushes toxins out of your body and keeps you hydrated throughout the day. A lack of body hydration may result in headaches, stomach pains, trouble focusing, and bloating. Men can be aiming for between 4-5 litres (128-160 ounces) of fresh, filtered, room temperature water every day, and women can be aiming for anywhere from 3-4 litres (96-128 ounces.) This may depend on your activity levels as well, so it is ok if you go over this number.

Consuming plain water can be really boring and savourless. A few tips that I recommend:

- add in fruit or vegetables for flavour (like lemon, cucumber or strawberries)
- use Crystal Light or Mio squirt enhancers
- drinking BCAAs (branch-chain amino acids) can help with more flavour

But what about coffee? Research proves that coffee intake doesn't actually dehydrate you, but it doesn't quite offer the same hydration benefits as pure water, either. A cup or two in the morning is fine, but I wouldn't consider it 'water intake' if that's what we are focusing on. Tea is similar; if it's caffeine-free then I would consider it water intake. Everyone may consider it differently.

Sodium

Sodium is the sixth most abundant element on earth and found naturally in the earth and environment, always bound up in minerals and rocks. Sodium is most commonly eaten as a component of table salt, which is only partly sodium. Table salt contains 40% sodium and 60% chloride. And while we generally think of the salt shaker as the only source of sodium, sodium also exists in most whole foods, from cantaloupe to eggs. It also hides out in a lot of unlikely places, like sandwich bread, milk, and even medication. Spices are great to use for flavour and added health benefits; just be mindful with high sodium levels.

Sleep

Always get a great sleep as inadequate sleep throws off your body's hormonal balance, lowers strength and cognitive function. Aim for 7-8 hours each night. Even if you're in bed for that amount of time, it doesn't mean that it's quality or that you wake up feeling well-rested. Having a wind-down routine to slowly calm your brain can help ease into a better night's sleep. Turning off electronics before bed, or putting electronics into Night Mode can help. Tracking your sleep with an app could be beneficial to see the quality of your sleep.

I recap these three elements and more on my FREE blog: "Nutrition Awareness & Additional Information"

SEVEN

SUPPLEMENTS

We know from the Nutrition Pyramid in Chapter 2 that supplements only account for about 5% of our emphasis on nutrition. To be completely honest, I don't think most supplements are necessary. Once the basics have been nailed down into your lifestyle (caloric balance, macro and micro needs, and nutrient timing, then we can consider incorporating supplements.

When you are aware of your genes and your body's individual make up, you can better understand what supplements will benefit you the most. Not all supplements are going to work the same for each person.

The most commonly asked about supplements are protein powders, fat burners and BCAAs.

Types of protein powders

Buying protein powder can be stressful. The chosen one is usually the cheapest, but that's not always the best option for your goals. Not all powders are alike, and the right one for you will be based on what you're using it for. Here are a few things to consider when looking for your best protein powder.

Do you want something dairy-based (derived from cow's milk) or plant-based? Dairy-based proteins:

- Concentrate (quick absorption; 75-85% protein & 15-25% carbs/fats; most affordable; considered the king of protein)
- Isolate (undergone additional filtration; 90-95% protein; best for post-workout)
- Casein (slow absorption; ideal for evening/pre-sleep consumption)
- Hydrolyzed (undergone further breakdown; easy absorption; considered hypoallergenic – can be taken safely when dairy/lactose/soy allergens are present)
- New Zealand whey (more isolated and pure protein content; NZ cows are grass-fed, antibiotic-free; healthier & produce better quality whey)

Plant-based proteins: pea, soy, brown rice (less potent/effective; ideal for vegans/vegetarians)

Vegan diets come with a bad rap because they don't provide the essential amino acids that we need in order to make up a complete protein. Without a complete protein, our muscles aren't getting enough nutrients in order to repair and grow. A complete protein contains all 9 essential amino acids (EAAs) and is comprised of: tryptophan (7mg), threonine (27mg), isoleucine (25mg), leucine (55mg), lysine (51mg), methionine+cysteine (25mg), phenylalanine+tyrosine (47mg), valine (32mg), histidine (18mg); per gram of protein.

- Pea isolate protein: excellent vegan option; great for avoiding food allergies (gluten, dairy/lactose.) Provides essential and non-essential amino acids
- Egg white protein: (technically not 'vegan' but vegetarian approved) safe for dairy-free diets; moderate rate absorption (slower than an isolate.) Considered a complete protein.
- Brown rice protein: contains protein and starches and very high in nutrients; organic sources. Provides essential and non-essential amino acids
- All natural premium vegan blend: contained pea isolate, brown rice, hemp. Considered a complete protein

Other important factors to consider:

- Different powders can help build muscle, aid in workout recovery, and serve as a healthy/quick meal
- Look for a cold filtration powder (preserves nutrients/protein molecules)
- Check the amino acid content (usually the more aminos the better the protein; look for BCAAs and glutamine)
- Don't get suckered into fancy 'proprietary blends' (added flour to saturate servings) or packaging (marketing gimmicks)

Fat burners

The problem with many fat burners is that they claim to flush unwanted body fat in rapid time, but most claims are based on rat studies. Many athletes have tried at least one 'fat-burning' supplement in the past, myself included. The common ECA stack (ephedrine, caffeine, aspirin) has been proven effective, yet is very intense and sometimes banned for athletes; definitely not recommended for everyone. Remember that there's no supplement that can replace what a balanced diet and proper exercise can do. A solid combination of natural and safe ingredients may provide an extra metabolism boost and exercise improvements, but remember losing body fat is not just taking a pill and skipping out on the hard work. And just like macros and workouts, results will vary for everyone, so just because a stack works for someone doesn't always mean that it will work for you.

Branched-chain amino acids

Branched-chain amino acids (BCAAs) are the building blocks of protein molecules and are comprised of 3 essential aminos: leucine, valine and isoleucine. BCAAs assist with protein synthesis, crucial for growth and repair of muscle tissue. Isoleucine is known to assist with fat mobilization and utilization in the body, making BCAAs a great tool to aid in fat loss (in coordination with balanced nutrition and proper strength training). Valine converts into glycogen, which is the muscle's primary source of energy, therefore helping boost metabolism and assisting with greater energy production. There's a lot of talk that BCAAs are pointless and don't actually do anything. At the end of the day, no one forces you to take any supplements. This all comes down to what you want and like. Many athletes love consuming BCAAs, especially during strength training and it to help achieve water targets.

Other very common (and beneficial) supplements

As commented at the beginning of this chapter, no supplements are mandatory or are going to be a game-changer in your progress, no matter what journey you are on. These are a few other common and potentially beneficial supplements:

- **Caffeine** - a natural stimulant that provides temporary increases in energy, mental focus, mental clarity, concentration levels and short-term memory. Consuming caffeine prior to working out can improve athletic performance, quicken your reaction time and overall boost your immune system. Natural coffee is one of the best pre-workouts you can take.
- **Omegas** - improves your cardiovascular health and endurance, provides additional support to brain function, and aids as a joint lubricant. Omega 3s are essential and are known to help reduce LDL cholesterol levels. They primarily help with brain health and cognitive function. Omega 6s help with cardiovascular health. Omega 9s are non-essential because your body naturally produces it, but consuming 9s can help to increase vitamin E levels in your body.
- **Multi greens** - a greens formula could potentially help because it's packed full of plant and vegetable-based nutrients that the body thrives upon. Greens help support our cardiovascular health and promote better digestions. They strengthen and boost the immune system, improve eyesight and blood circulation and are packed full of those vital greens that we don't always want to consume raw. What to look for on the label: spirulina, chlorella, seaweed, green algae, carrot, beet root, berries, green tea extract, flaxseed oil.
- **Digestive enzymes** - digestive enzymes help break down milk fats, carbs, proteins and sugars, resulting in healthier digestion and immune system boost. They help maintain a healthy intestinal tract by stimulating the natural formation of good bacteria. An enzyme found in this supplement called protease can help with fat loss by breaking down fat stores.
- **Glutamine** - an amino acid that provides fuel for rapidly dividing cells, enhancing performance and boosting the immune system. Intense training significantly depletes glutamine. Taking glutamine can reduce soreness and inflammation post-workout, aid in recovery and have a muscle-building effect.
- **Creatine** - assists with muscle growth, repair and overall athletic performance. It can increase energy that the muscle cells have to their disposal, allowing the muscles to work harder and more intensely, before they begin to fatigue.
- **Melatonin** - a fantastic sleep aid, and can enhance a person's overall mood and cognitive brain function. Melatonin helps a person's sleep and awakening patterns. Some people may have troubles falling asleep or even just getting their brain to relax at night, which is why melatonin can really help you to shut your brain off and get a deeper sleep. Melatonin can also help with the prevention and treatment of migraines and increase an athlete's muscle mass.

If you are interested in quality supplements, I highly recommend choosing Canadian Protein. They ship across Canada and USA (soon to be international!) very quickly. I've been using their products for over 5 years and I trust them for superior quality. They show third-party testing for all products, use high-class ingredients, and ship from the factory which saves you a lot of added costs.

Save 10% on your first order using: COURTNEYFORLIFE (Canada) or COURTNEYFORLIFEUS (USA) and make sure you create an account to obtain rewards points to get free products on future orders.

EIGHT

BONUS QUIZ!

Based on this eBook, it's time to test your basic nutrition knowledge!

1. Which is not considered one of the top 3 macronutrients?
 - A. Vitamins
 - B. Carbohydrates
 - C. Fats
 - D. Proteins
2. True or false? Protein is the body's main energy source.
3. True or false? Slower digesting carbohydrates are better to consume after a strength session.
4. True or false? Healthy fats slow down the absorption of protein, helping you feel more satiated.
5. Which of the following statements is true about alcohol?
 - A. Is great to aid in fat loss
 - B. Is toxic for your body and directly causes fat gain
 - C. Can be consumed in moderation, but can affect body composition
 - D. Doesn't impact fat metabolism
6. True or false? Cutting out carbohydrates from your diet is a sustainable way to quickly lose body weight.
7. True or false? Eating in front of a TV can keep you distracted and prevent you from over-eating.
8. Which of the following statements is false about strength training?
 - A. It can be beneficial to consume more carbohydrates for strength training
 - B. A pre-workout meal high in healthy fats can promote muscle growth
 - C. Consuming protein can promote MPS
 - D. Being overly sore can imply we may not be eating enough for our body's needs
9. True or false? Supplements are vital for fat loss.
10. How many necessary vitamins are needed for the body to develop and grow?
 - A. 13 (4 fat-soluble and 9 water-soluble)
 - B. 12 (3 fat-soluble and 9 water-soluble)
 - C. 13 (9 fat-soluble and 4 water-soluble)
 - D. 11 (8 fat-soluble and 3 water-soluble)

ANSWERS:

1. A
2. False (carbohydrates are!)
3. False (faster digesting is better)
4. True
5. C
6. False (the body needs carbohydrates for energy, cutting out any macronutrient is not healthy or sustainable)
7. False (usually leads to over-eating)
8. B
9. False (balanced nutrition and caloric intake awareness is vital; supplements are of lesser importance)
10. A



**For more information, visit
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