



SUPPLEMENTS: THE BOTTOM LINE



Supplements: The Bottom Line

Supplements can be confusing. You've probably seen many different advertisements, whether on a television commercial, billboard, or any of the social media platforms you frequent, for some sort of product that just sounds like a bunch of random words put together in an attempt to sound cool.

Mega Protein X*, Crazy Pump Blast 3*, JackedMino Acid Titanium*. What on earth does any of this stuff mean?

More importantly, do any of them really work?

In this guide I'm going to break supplements down. We'll cover the basics, different categories, fundamentals, and a few extras that I like as well.

There's no need to make supplements confusing. Enjoy the read!

Overview

First and foremost, you'll never hear me say that supplements are essential to building a physique. I'll always stress that your diet and workout plan are the critical components in shaping what you look like. When you've got those things in place, supplements can assist you in taking things further.

The important thing is being able to look out for certain elements with specific supplements, as well as choosing the right products for your goals. Another thing to keep in mind is when to take them, in order to make sure you're maximizing the intended action of the product.

We'll cover all of these things in this guide. For each product outlined, I'll be sure to let you know my recommended dosage, when to take it, and an estimate of what you can expect to pay. I'll also let you know what my most recommended supplements are. Look for the ★ throughout the guide to see the products I absolutely have to use!

Muscle and Recovery

Mass Gainer



Everyone wants to get huge, right? Any young guy just starting out who's looking to put on some muscle will almost always immediately reach for the nearest mass gainer he can find in his local supplement store.

As I'm sure you can tell from the name, the goal of a mass gainer is to assist you in gaining weight. These are usually a go-to product by those who would consider themselves a "hardgainer," or someone who has trouble packing on the pounds. When you need to meet a seemingly impossible caloric goal for the day, using a mass gainer filled with hundreds and hundreds of calories can make that task easier.

However, sometimes it's not always the best way to go. This is where reading the label comes in handy. A lot of times — especially if you live in a country that's fairly lenient with its supplement laws — these formulas can be just loaded with fillers, sugars, and a ton of other stuff that may help you get bigger, but not in the way you want. We all want to gain lean muscle, and minimize the gain of fat. Opt for products that are GMP (Good Manufacturing Practices) certified and free from banned substances. Don't be afraid to do a little research, either. Look up specific products online and read reviews from people who have already given them a whirl.

The Bottom Line

When should I take some?	After your workout With, or in place of meals
How much should I take?	Post-workout: take a total amount of protein equal to your bodyweight divided by 4 With, or in place of meals: 30-40 grams of protein at a time
What can I expect to pay?	\$65-100

Whey Protein and Whey Isolate



One of the most basic supplements you can get your hands on. Since protein is essential for the repair and growth of muscle (especially after exercise), investing in a quality source of protein will do you good in the long run.

Whey protein is probably the most common supplement you'll find, and see people using. The reason is, it's not that expensive depending on what you choose, and it'll get the job done. Within twenty minutes of consumption, whey will be flowing through your veins, and will be fully metabolized within the hour — exactly what you want after your workout. The thing is, while whey is fairly cost-effective, there are higher quality, more pure options.

Check out whey isolate, and you'll see a jump in price — but with good reason! Whey isolate is incredibly pure. It doesn't contain lactose, which means even most lactose intolerant individuals can take it. It's just as fast-acting as whey, if not faster. These benefits do come at a price, though. But if you can afford it, isolate is the way to go.

Like mass gainers, it's important to take note of labels on anything you buy, so this applies to protein as well. Look for ones without additives that meet quality guidelines. Finding ones with Stevia leaf means they'll be sweetened for better taste, without the additional calories you'll get from sugar.



The Bottom Line

When should I take some?	After your workout With, or in place of meals
How much should I take?	Post-workout: take a total amount of protein equal to your bodyweight divided by 4 With, or in place of meals: 30-40 grams of protein at a time
What can I expect to pay?	\$50-95

Creatine Monohydrate



One of the most effectively proven supplements of all time is also very cost-effective! You can usually pick up a tub of creatine monohydrate for around \$20, making it a very accessible supplement.

Creatine is something you'll already find in your body, and can also be found in some foods as well, like steak. When taken as a supplement, creatine can increase both muscular endurance as well as strength, meaning you can go harder in the gym and have an accelerated recovery process.

Over the years, there's been a lot of misinformation that's gone around on creatine and what it does.

However, some simple research will show that creatine monohydrate is safe and effective. As with anything else, in the right dosages, you'll see benefits.

You can consume five to ten grams of creatine every day and it won't be harmful to your health. However, ten grams is really the maximum you should consume. If you'd like, you can split up in two doses throughout the day (one being after your workout).

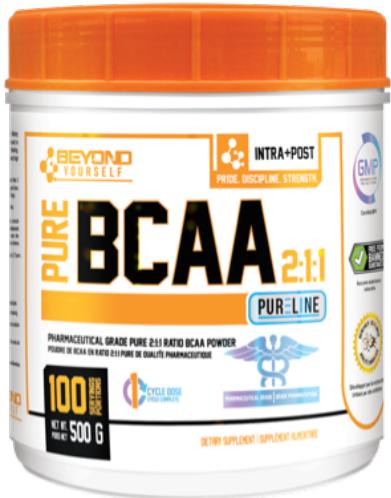
Like any compound that you find naturally in your body, I recommend taking creatine in a cycle. I like to use it for around three months, and then take one month off. From there, I restart the cycle.

The Bottom Line

When should I take some?	Before your workout After your workout
How much should I take?	5-10 grams per day
What can I expect to pay?	\$20-30

Pro Tip: If you take a pre-workout drink, check the label to see if it contains creatine. If so, you won't have to take separate dosages — just one in your post-workout shake!

BCAAs



Branched chain amino acids are quite useful to athletes. These are a combination of three amino acids — leucine, isoleucine, and valine. Typical amino acids, and even protein, are metabolized in the liver. However, the breakdown of BCAAs are focused mostly in muscle.

Direct metabolism in the muscle means more energy in the form of ATP (adenosine triphosphate) — your main source of muscular energy. More energy for your workouts means you can push harder. Even more so, keep in mind that when your body runs out of ATP, it may start breaking down muscle in order to continue fuelling your training. BCAAs can help prevent that breakdown, and assist in recovery too. Preventing this breakdown of muscle will help build even more upon it, making BCAAs an excellent supplement to take whether you're currently in a cutting or bulking phase.

There are two options with BCAAs. You can brave the flavourless route, but if you're drinking them intra-workout, I recommend looking for ones with flavour. Trust me!

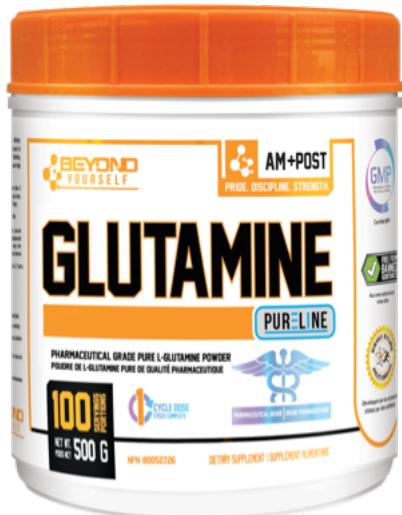
With these options available, I make use of both of them. I'll take five grams of flavourless BCAAs in my post-workout shake, and drink ten grams of flavoured BCAAs during my workout.



The Bottom Line

When should I take some?	During your workout After your workout
How much should I take?	5-15 grams per day
What can I expect to pay?	\$40-60

Glutamine



Another extremely useful supplement, glutamine is the most abundant amino acid found in muscle tissue. It is also the primary transporter of nitrogen into muscle cells.

Research has also shown that glutamine can assist in raising growth hormone levels, with one study attesting that just two grams raised these levels by over 400% — wow!

The benefits don't stop there, either. Adding glutamine into your supplement stack can help prevent muscle fatigue, assist in protein synthesis, kickstart your recuperation, and boost your immune system. With other highlights like promoting brain function, glutamine's benefits stretch outside the training world as well. Preventing sickness is always a plus, but if you happen to be feeling a bit under the weather, increasing your glutamine intake a bit can help get you back on track even faster.

I take glutamine three times per day — in the morning with my breakfast, as well as after my workout, and before I sleep. With as hard, heavy, and frequent I train, every advantage I can take to help recover faster is something I need to capitalize on. If I can reduce delayed onset muscle soreness, I'm going to!

With its numerous perks, glutamine has certainly earned its way into being a part of your daily routine!

The Bottom Line

When should I take some?	In the morning After your workout Before bed
How much should I take?	5-15 grams per day
What can I expect to pay?	\$30-50

Dextrose



Also referred to as D-glucose, dextrose is the simplest form of sugar available. As such, it will transport all of the nutrients in your post-workout shake directly to your blood.

With post-workout nutrition, the idea is to get the nutrients into your system as quickly as possible. This is the reason we take whey or whey isolate — their fast-acting nature makes them the perfect candidate for a drink after your workout. Dextrose helps enhance this process by acting as a vehicle, and bringing all of the ingredients in your shake into your system even faster.

As a result, your muscles will receive the nutrients they need to grow and recover even quicker!

Not only this, dextrose helps boost your insulin level, which is directly connected with protein synthesis and the recovery process as a whole. While you workout, your insulin level drops, and you begin producing cortisol — a catabolic hormone — which counteracts insulin. To curb this process, carbohydrates like dextrose (particularly fast-acting ones) help spike your insulin level, thereby halting cortisol, and keeping you in that desirable anabolic state.

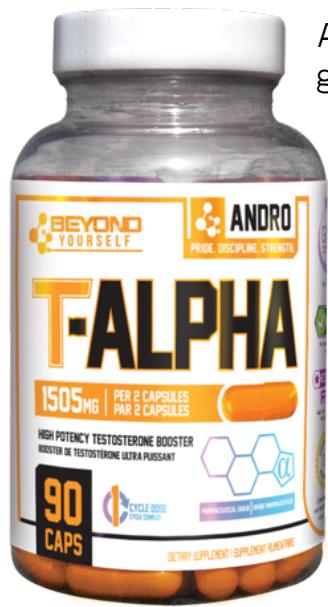


The Bottom Line

When should I take some?	After your workout
How much should I take?	Post-workout: take 0.4-0.5g multiplied by your weight (in pounds)
What can I expect to pay?	Around \$5 per kg

High Intensity Sport

Testosterone Boosters



As its name suggests, these products are aimed with the goal of increasing your overall testosterone levels. The product shown here, T-Alpha, is not a run-of-the-mill blend. Using this supplement, you'll receive massive increases in strength, recovery, anabolic potential for lean muscle mass, and libido. Below, you'll learn more on the pharmaceutical grade ingredients in this product.

The first ingredient is **D-Aspartic Acid**, which is a nonessential amino acid that plays an important role in the neuroendocrine system and development of the nervous system. Recent studies indicate that it plays a role in regulating the release and synthesis of testosterone. Secondly, **Maca** is a member of the radish family native in the Andes mountains of South America.

Maca root contains numerous amino acids and essential minerals, including potassium, selenium, magnesium, iron and calcium. The third ingredient is **Fenugreek**, and it is used both as a herb (the leaves) and as a spice (the seed, often called *methi* in Urdu/Hindi). The plant is cultivated worldwide as a semi-arid crop and is a common ingredient in many curries. The last ingredient is **Diindolylmethane**, which is formed from the natural breakdown of glucobrassicin, which is found in cruciferous vegetables, notably broccoli and cauliflower. Because of its antioxidant and health promoting qualities, DIM is being actively studied in multiple labs throughout the nation.

When I start a cycle of T-Alpha, I can feel the effects after about a week. I feel leaner, naturally pumped, and have much higher energy than I do without! For my cycles, I'll use the product for around two months, and then take a month off. From there, I'll begin again.

The Bottom Line

When should I take some?	T-Alpha: 2 pills every 6 hours
How much should I take?	4-6 pills per day
What can I expect to pay?	\$40-60

Pre-workouts



Pre-workout supplements are a common choice used among individuals who want to get an extra boost for their workout, or even just the motivation to get up and go do their workout in the first place.

The goal of preworkouts are to give you more energy, better focus, and more endurance during your workouts. Most of this is accomplished using a formula that typically contains caffeine, creatine, amino acids, L-arginine, and occasionally carbohydrates. This adds up to increased bloodflow to your muscles, which means better performance (and better pumps!)

Our preworkout of choice, PreSET, was created using a matrix of ingredients to work harmoniously, to bring about improved energy, unsurpassed mental focus, as well as more power and endurance.

Keep in mind that, preworkouts are supplements, and just like anything else, you need to be smart about them. They are powerful and potent (some more than others), and you should start taking them by gauging your tolerance first. You'll often find disclaimers for this sort of thing on the labels. If not, you can usually start with a half scoop, and work your way up from there (usually no more than two scoops).

Upset stomachs can result from certain supplements, too, so keep this in mind when trying different things. If you at any time experience unpleasant side effects from certain products, discontinue use. Remember, these are meant to help, not harm you!

The Bottom Line

When should I take some?	30-45 minutes before your workout
How much should I take?	Gauge tolerance: start with 1 scoop
What can I expect to pay?	\$30-60

Health & Well-Being

KETO-ICE



KETO-ICE is a thermogenic metabolic enhancer that aims to assist in keeping you energized and lean year-round, all while remaining stimulant-free.

This product fuses the natural fat-burning and energy-driving effects of L-carnitine with the benefits of Raspberry Ketones as well. This helps promote fat oxidation as well as raising thermogenesis, to keep yourself healthy, revitalized and shredded!

The Bottom Line

When should I take some?	Twice per day at your leisure
How much should I take?	1 scoop per serving
What can I expect to pay?	\$50

L-carnitine



A natural dietary supplement, L-carnitine can play an important role when your body needs energy. By increasing the levels of carnitine in your body, you'll increase the rate at which fat is burned. As your body becomes more efficient at processing fuel, it will, in turn, increase your energy levels.

L-carnitine is a naturally potent fat burner since it is responsible for the transport of fatty acids into cells to be used for the body's energy. By increasing carnitine, you'll improve your performance by reducing lactic acid buildup in the muscle, sparing glycogen reserves.

The Bottom Line

When should I take some?	30-45 minutes before your workout
How much should I take?	1 pill per day
What can I expect to pay?	\$50

Multivitamins



Choosing a solid multivitamin is a great choice to support overall health. As with any supplement I recommend, choose carefully by looking for products that meet quality guidelines. In the case of the one I take, MultiAthlete by Beyond Yourself, each ingredient is chosen with a specific purpose and without danger of any toxic build-up, or negative side effects. Most notable ingredients in here include beta-carotene, vitamin C, vitamin E, and B-complex vitamins for their vital roles within the body. A multivitamin can be your best friend in supporting your active lifestyle so that you can keep it up day after day!

The Bottom Line

When should I take some?	3 in the morning 3 in the afternoon
How much should I take?	6 pills per day
What can I expect to pay?	\$30-40

Omega-3s



Omega-3 fatty acids are incredibly beneficial to the human body, and are absolutely necessary for certain functions. By including omega-3s in your diet, you're improving your arteries, cholesterol, lungs, bones, and joints. You're also decreasing your chances of several cancers, like colon, breast, and prostate. Not only that, it's been suggested that fish oils support protein synthesis in muscles, and help reduce muscle breakdown!

While some foods contain omega-3s (mostly fish), it can be tough to get all you need in your diet — which is why it's useful to use a supplement!

The Bottom Line

When should I take some?	In the morning
How much should I take?	2000 mg per day
What can I expect to pay?	\$15-30

Flaxseed Oil

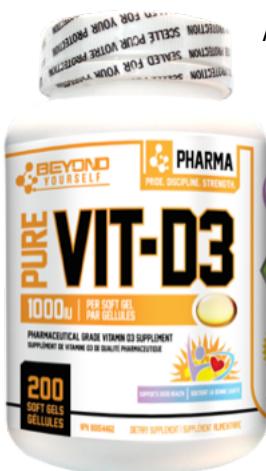


Flaxseed oil can curb your appetite, which can be a real plus if your goal is to drop weight. Its benefits also stretch to lowering blood pressure, improved brain function, as well as preventing cancer, lowering cholesterol, and even increased testosterone levels. Much like omega-3s, flaxseed oil can also help support healthy joints, which is a priority for athletes like myself who train with heavy weights nearly every day. Not only that, its assistance in slowing the digestion process makes flaxseed oil ideal to take before bed with a protein shake.

The Bottom Line

When should I take some?	Before bed
How much should I take?	2000 mg per day
What can I expect to pay?	\$10-20

Vitamin D3



Also known as the sunshine vitamin, we usually absorb vitamin D3 through our skin upon exposure to UV rays from the sun. However, due to sunblock, and especially lack of rays from the sun, our bodies can rarely produce sufficient amounts of the vitamin — which makes supplementing it a smart move!

Vitamin D3 helps with overall bone health, will help lower blood pressure, and high cholesterol too. I can't stress enough how important it can be to take vitamin D3, especially if you live in conditions with limited sunlight — believe me, you'll notice your energy levels go back up when you take this stuff!

The Bottom Line

When should I take some?	In the morning
How much should I take?	2000-10,000 IU
What can I expect to pay?	\$10-20

Vitamin C

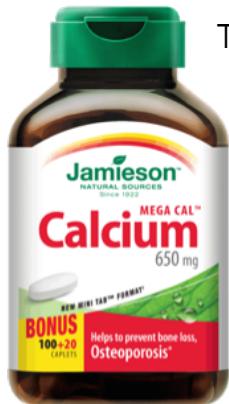


Vitamin C is extremely potent, protecting against immune system deficiencies, cardiovascular disease, prenatal health problems, eye disease, and even skin wrinkling. It's one of the best antioxidants you can get your hands on, as it helps you maintain overall good health. Not only that, there are some studies that suggest vitamin C can help assist in the building of muscle after working out. On another related note, if you happen to feel the "crash" after a workout — particularly if you take a pre-workout supplement high in caffeine — vitamin C will help absorb it and keep you energized.

The Bottom Line

When should I take some?	In the morning After your workout
How much should I take?	2000-4000 mg per day
What can I expect to pay?	\$5-10

Calcium



There are several reasons to take calcium — first and foremost, your body needs it in order to build and maintain strong bones. However, calcium is also needed in order for your muscles and nerves to function properly. Some studies have also suggested that calcium can play a part in protecting against cancer, diabetes, blood pressure, and restoration of fertility. You'll also be keeping your mouth healthy, as calcium supports gum health, and will keep your jawbone stronger.

The Bottom Line

When should I take some?	In the morning
How much should I take?	1000-1300 mg per day
What can I expect to pay?	\$5-10

CLA

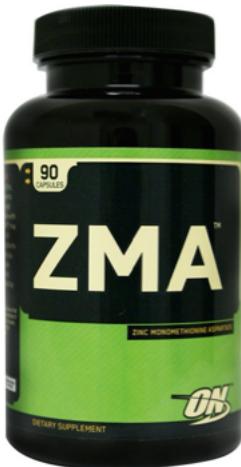


Conjugated linoleic acid will resist lipoprotein lipase from storing fat in your body, making it a perfect supplement for those looking to stay lean. Not only this, but will improve your energy levels, boost your immune system, prevent cancer, encourage weight loss, and help in the maintenance of lean muscle mass.

The Bottom Line

When should I take some?	In the morning, afternoon, and evening (with food)
How much should I take?	3000 mg per day
What can I expect to pay?	\$20-30

ZMA



ZMA is a combination of zinc, magnesium and vitamin B6. It's very commonly used by athletes of all kinds, including gymnasts and bodybuilders, primarily as a means to assist in recovery. Not only will it help your sore muscles heal up, it'll boost your testosterone, and improve your quality of sleep, by allowing you to achieve deeper levels of REM sleep.

The Bottom Line

When should I take some?	Before bed
How much should I take?	3 capsules
What can I expect to pay?	\$20-40

Garlic



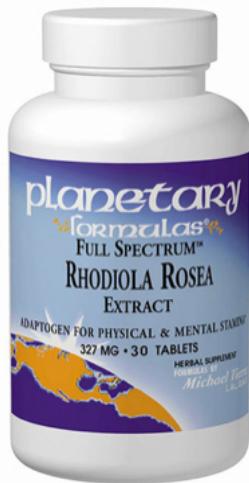
Garlic pills are used for many conditions related to the heart and blood system. This includes high blood pressure, high cholesterol, coronary heart disease, and reduces the risk of heart attack.

Garlic has really helped my cardiovascular condition during my workouts, and studies have shown that it's beneficial for your overall health. As an athlete, if it's good for my health, and improves my performance, it's worth keeping in my stack!

The Bottom Line

When should I take some?	In the morning
How much should I take?	3 capsules
What can I expect to pay?	\$10-15

Rhodiola



Also called the golden root, rhodiola is a truly unique herbal remedy packed with benefits that you'll want to get your hands on. Taking rhodiola will improve the body's response to stress, by balancing our stress-response system. By taking it, you'll also be enhancing your nervous system health, boosting your physical endurance, and to top it off, it will also help soothe feelings of agitation and sleeplessness.

Rhodiola is a plant that's been used for centuries in traditional Chinese medicine, and even by the Vikings to improve their strength and endurance. It's a truly unsung hero of the supplement world!

The Bottom Line

When should I take some?	In the morning
How much should I take?	1 pill (500 mg per day)
What can I expect to pay?	\$20-30

Final Thoughts

Ultimately, the goal of *Supplements: The Bottom Line* was to shed some light on the world of supplements for you. I receive hundreds of supplement-related questions every week, and seeing that it's such a convoluted subject lead me to wanting to explain the basics. This guide is a great place to start your knowledge of some of the most major supplements available, make an informed decision on what interests you, what you want to learn more about, and how you can expect to budget yourself should you choose to invest in any of them.

As always, it's my pleasure to continue to inspire, motivate, and educate you in the world of fitness. Until the next guide, never stop climbing higher, and remember — everything is possible!

A handwritten signature in black ink, appearing to read "Marc Fitt".

— Marc Fitt