SUPPLEMENTS

These are recommendations, not requirements, and are only here to help you in your journey. I have found the most benefit from the products listed below and feel they are worth investing in.

CREATINE MONOHYDRATE

What is it?

Creatine is one of the cheapest, safest, and most researched supplements on the market. It is composed of 3 amino acids (glycine, arginine, and methionine) and is naturally produced in the body. Creatine is also found in certain high-protein foods such as red meats and fish.

What does it do?

The purpose of creatine is to provide the body with more energy (ATP). Your body converts ATP into usable energy by releasing a phosphate which then results in ADP (ADP is useless in the body unless it's converted back to ATP). This is where creatine comes in. Creatine converts the ADP back to ATP so you now have more energy, thus allowing you to train harder and longer.

Benefits

Creatine also pulls water into the muscle cells which has been shown to increase protein synthesis (the process of creating protein molecules), and it also creates a fuller muscle making them look bigger and more pumped.

How much do I take?

Creatine must be taken consistently to ensure the muscles stay saturated. When first starting, you can quickly saturate the muscles taking 15g-25g for 5 days and then decreasing back to a normal dose of 3-5g/day to maintain, or you can take 3-5g/day and it will take about 30 days to completely saturate the muscle.

When do I take it?

It's best to take creatine post-workout for many reasons.

1. Insulin helps drive more creatine into muscle cells. You should be consuming foods post workout that spike your insulin, so it's best to take it at this time.
2. Nutrients are absorbed more efficiently post workout.
3. Creatine will refuel your body's low phosphate stores.

Which one do I buy?

Creatine monohydrate is the cheapest, most researched form of Creatine. You can either buy it on it's own, or use a supplement that contains it. Some pre-workouts contain creatine, however, you typically don't take pre-workout everyday like you would need to with creatine, and it's more beneficial to consume creatine post-workout.

OMEGA- 3 FISH OIL

Fish oil is highly saturated with omega-3 fatty acids (EPA/DHA) which are found in a majority of fatty fish as well as certain nuts and seeds. If you consume a high amount of fatty fish throughout the week, such as salmon, you may not need to supplement. However, many of these fish also contain high levels of mercury which also need to be monitored in the body. Fish oil is a good way to isolate the omega 3 without risking increased mercury levels. The three main benefits of omega-3 fatty acids are the support of healthy cholesterol levels, enhancing mood by helping regulate serotonin levels, and increasing bone health.

Recommended dose ranges from 1.5g-3g (total EPA & DHA) per day.

WHEY PROTEIN (concentrate, isolate, or hydrolyzed)

Protein powder is not necessary, but it's an easy way to supplement your protein if you have a difficult time consuming it all from whole food sources. I prefer whey protein over any other because it's rich in essential amino acids (responsible for increased muscle protein synthesis) and is quickly digested. If you're lactose intolerant, I recommend getting hydrolyzed whey because it's lactose free. If dairy doesn't bother you, whey concentrate and isolate are great options and contain more micronutrients due to undergoing less processing. It's most beneficial to consume 25-40g of protein every 3-4 hours.

PRE/POST WORKOUTS

Pre and post workouts are also supplements that aren't necessary, but can be beneficial for performance and recovery. The main thing to look for when choosing these products are their ingredients and doses. I have listed common ingredients in both pre and post workout products below as well as their clinically effective doses.

Pre-Workout

Ingredients:

- ➔ **Citrulline Malate** (helps reduce muscle fatigue, improves muscle endurance, and helps relieve muscle soreness by increasing blood flow)
- ➔ **Beta-Alanine** (reduces exercise-induced fatigue)
- ➔ **Caffeine** (increases energy, focus, and strength)
- ➔ **L-Theanine** (Reduces the effects of mental and physical stress by balancing the levels of neurotransmitters in the brain. When paired with caffeine, it can help reduce the jitters and anxiety that often occur while still providing focus and memory performance.)
- ➔ **Alpha-GPC** (Enhances the neurotransmitter responsible for the physiological response to exercise and muscle contraction. This results in increased performance and decreased fatigue.)

Ingredient	Clinically Effective Dose
Citrulline Malate	6-8g
Beta-Alanine	3.2-6.4g
Caffeine	200-400mg
L-Theanine	200-500mg
Alpha-GPC	150-600mg

Post-Workout

Ingredients

- ➔ **Creatine Monohydrate**
- ➔ **L-Carnitine L-Tartrate** (improves muscle repair and helps reduce soreness)
- ➔ **Betaine** (improve muscle strength, power and endurance by enhancing muscle cell survival and increasing cell synthesis)
- ➔ **Ashwagandha Root Extract** (an adaptogen that helps regulate stress levels and improve sleep quality/recovery)
- ➔ **Corosolic Acid** (enhances post workout glucose and amino absorption)

Ingredient	Clinically Effective Dose
Creatine Monohydrate	3-5g/day
L-Carnitine L-Tartrate	1-4g
Betaine	2.5-3g
Ashwagandha Root Extract	300mg/day
Corosolic Acid	10mg/day

Recommended Supplements Brands:

- **Outwork Nutrition**
- **Legion**
- **PEScience**
- **Optimum Nutrition**
- **RAW**
- **Gorilla Mind**

*****All creatine is the same, just be sure to get Creatine Monohydrate*****

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