

make a COMEBACK

Slash your recovery time with these four science-backed supplements.

WRITTEN BY ASHLEIGH GASS, MS, CSCS, CCN, CNS, CISSN & THE STRONG EDITORS

DIETARY SUPPLEMENTS ARE A HOT BUTTON TOPIC THESE DAYS. With sports nutrition becoming more mainstream, a lot of us are wondering if popping the right pills can really help with everything from muscle building to a faster recovery, and if so, which ones are best? Although numerous studies have recently questioned the quality and reliability of some brands of pills and powders, plenty of science still backs the benefits of supplementation when it comes to post-workout recovery, particularly when supported by a sound nutrition strategy.

There are dozens of supplements available on the market that boast a boosted recovery time, but the four discussed here specifically help the body increase its ability to build and repair lean muscle between training sessions. Each one is meant to aid in a different part of the recovery process and plays a unique role in muscle synthesis and rehabilitation. Knowing their unique traits and how to time them so they're most effective is invaluable to anyone serious about their training; after all, the quicker you recover, the sooner you'll be back in the gym.



CREATINE

WHAT IT IS: Creatine is a molecule made by the body that can produce rapid energy. Its main role is to store high-energy phosphate groups in the form of phosphocreatine, so that under physically stressful situations (such as a heavy lifting session or high intensity interval training), the stored phosphate groups release energy. Food sources of creatine are limited to animal protein, such as meat and fish, so vegetarian athletes should be especially aware of their intake when training hard.

WHY TAKE IT: If there's one supplement that's strongly

backed by research, it's this one. Studies have proven creatine's value time and time again as a supplement to aid in increasing lean body mass by improving work capacity, while also improving strength and power output. In fact, the scientific consensus of creatine's role in enhancing power output is strong: in an analysis of 65 studies on the topic, 100 percent of them found a significant, positive correlation. For the fit woman, this means one thing: if you're looking to add lean mass and performing at a high-intensity, creatine-supported training will benefit your efforts. Further

research has proven creatine's ability to enhance resistance to fatigue during repeated bouts of high-intensity exercise, even at lower dosages of 2-3 g/day for 6-week periods.

When to take it: Supplementing with creatine is beneficial both pre- and post-workout. If you're doing a loading phase, research supports 0.3 g per kg of body weight for 5-7 days, followed by 0.03 g per kg daily for a few weeks of cycling, or indefinitely without the need to load again. For most of us, this would equal 20 g per day for 5-7 days, and 2-5 g daily thereafter.

PHOTOS BY PAUL BUCETA

BCAAs (Branched Chain Amino Acids)

WHAT IT IS: Of the nine amino acids classified as "essential" (meaning the kind your body must obtain from food), Branched Chain Amino Acids (BCAAs) refer specifically to three: leucine, isoleucine, and valine. They're found mostly in whole food protein sources like meat, poultry, fish, eggs, milk and dairy products, which contain on average 15-20 g of BCAAs per 100 g of protein, but to help you get enough, they're

also available in both pill and powder form.

WHY TAKE IT: Research supports their use in reducing fatigue, muscle soreness, and increasing muscle protein synthesis post-resistance training. According to the *Journal of Nutrition*, BCAAs are essential to a well-rounded supplementation plan, and can benefit recovery and reduce fatigue depending on when you take them.

When to take it: Several studies have found BCAA supplementation prior to or during resistance training can help reduce Delayed Onset Muscle Soreness (DOMS) and muscle fatigue. Popping prior to exercise has been reported to decrease the breakdown of muscle proteins during exercise in humans, as well as promote protein synthesis in skeletal muscle. This is a good thing since the dual action of decreased breakdown and increased protein synthesis can lead to greater muscle and strength gains. ▶

SFM Head to strongfitnessmag.com for two more supplements that are proven to boost recovery.

WHEY POWDER

WHAT IT IS: Whey powder is made of a combo of high-quality proteins that have been isolated from milk. It contains all nine essential amino acids (in addition to the non-essential ones), and packs a nutrient profile that is second to none when it comes to protein supplements. It is commonly used by athletes, which is why whey has been the focus of much research on recovery and athletic performance.

WHY TAKE IT: Whey is highly favored by athletes for its quick uptake into the muscle tissue. This quick absorption translates into increases in muscle protein synthesis, a critical component of recovery and performance. According to the *Journal of the American College of Nutrition*, whey protein is one of the most effective supplements in augmenting lean body mass, meaning that, when taken regularly and according to instructions, it can help zap fat, repair muscle and decrease recovery time.

When to take it: Typically, whey isolate powder is mixed with water and consumed immediately (or within the hour) following a hard workout. However, it can be taken as a snack or with a small meal at any time of day, and some time-release formulas are often used as pre-bedtime snacks to deliver body repair throughout the night.

SUPP, GIRL

Despite their potential benefits, supplements shouldn't be taken as replacements for whole food sources. To supplement the right way, and get the most bang for your buck, there are a few basic rules to follow:

- 1. Use supplements to fill nutritional gaps** in your diet. These are the areas in which you might be lacking certain nutrients due to intense training or dietary restrictions.
- 2. Time them properly.** Some supplements are better suited during or immediately after training, while others offer more value when taken before a workout.
- 3. Go for the highest quality supplements** when possible (don't just reach for the cheap stuff). Read labels carefully and make note of their origins and ingredients.
- 4. Always check with your doctor before starting on any supplement program,** especially if you're currently on prescription meds or pregnant.

FISH OIL

WHAT IT IS: Fish oil refers to two specific kinds of Omega-3 fatty acids: EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). These fats aren't made in the body, and are typically found in fish, phytoplankton, animal proteins, and nuts and seeds. They play a significant role in recovery and overall body health. The Standard American Diet (SAD) is typically higher in Omega-6 fats, which, when left unchecked, can lead to chronic inflammation. Inflammation can also be caused by pollution and environmental toxins, constant stress and yes, even intense training. Omega-3 fats help to counter inflammation and restore balance.

WHY TAKE IT: While these fats may not have a direct role in performance enhancement per se, they do have many

roles in improved overall health, which, of course, is essential to performance and recovery. For general health, and indirect recovery through reduced inflammation, fish oil gets the job done. Getting an adequate daily dose of Omega-3s helps increase blood flow during your training and can reduce post-workout soreness by up to 35 percent.

When to take it: Anytime during the day is beneficial, but avoid taking fish oil on an empty stomach. To improve your health and combat inflammation, 250 mg per day of combined EPA/DHA is recommended, while The American Heart Association recommends 1 g per day. If used to reduce muscle soreness, dosages up to 6 g day are ideal and safe. **S**

Taking fish oil with meals will help eliminate the dreaded fish burps.



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