In the healthy scan for more smart advice!



Caffeine equals energy, which most of us consider a godsend in its own right. But the latest thinking is that the stimulant can also give you a significant edge in the gym. "There are years' worth of research proving caffeine's efficacy," says Jose Antonio, Ph.D., the CEO of the International Society of Sports Nutrition. It has enormous power as a safe and effective performance-enhancing drug.

Caffeine works by increasing activity in the central nervous system, making you feel more alert and awake, which sharpens your concentration and speeds your reaction times, says Philip J. Prins, Ph.D., an assistant professor at Grove City College in Pennsylvania, who has studied caffeine's effects on exercise. At the same time, caffeine disrupts the pain signals your muscles send to your brain, so you feel better during and after your workout and you're able to exercise longer and harder, says Matthew S. Ganio. Ph.D., an associate professor of exercise science at the University of Arkansas. It also revs your metabolism. "A person who has just had caffeine will burn more calories than someone who hasn't, even if they're doing the exact same workout," says Eric T. Trexler, a researcher at the University of North Carolina at Chapel Hill.

You need a strategy, though: Drink a beneficial amount of caffeine at the right time. Follow our lead.

Find your personal sweet spot Time it right

"To maximize athletic performance, aim to take 1.35 to 2.7 milligrams of caffeine per pound of body weight," Ganio says. So a 140-pound woman should go for 189 to 378 milligrams. (For reference, an eight-ounce mug of DIY brewed coffee contains about 95 milligrams of the stimulant, and a 12-ounce Starbucks coffee has 260 milligrams.)

If you don't consume caffeine often, start on the low end of the range at 1.35 milligrams of caffeine per pound of body weight to avoid possible side effects like dizziness, headache, jitteriness, or gastrointestinal issues, Prins says. Then bump up the dose to 1.8 milligrams, gradually getting up to 2.7 milligrams, or until you reach the point when you feel faster, stronger, and more on your game than usual.

If you already drink two or three cups of coffee a day, an additional dose before your workout can still give you an assist, according to a study in the *Journal of Caffeine Research*. But it is possible to develop a tolerance to caffeine, so if you feel your presweat java has stopped working, take a break from it for four to seven days or drastically cut back your intake. When you start drinking it again, you'll get a bigger bump from less caffeine.

Caffeine is *not* dehydrating

Though caffeine has long been considered a diuretic, Philip Prins, Ph.D., says that research shows sweat loss and blood and urine volume remain the same when you exercise after ingesting caffeine. In fact, a study in the journal *PLOS One* found that coffee in moderation may be almost as hydrating as water.

It takes about 15 minutes for caffeine to hit your bloodstream. The energizing effects peak after 45 to 60 minutes, and it will continue to stay in your system for three to six hours, Trexler says. For the best results, he recommends drinking coffee 30 to 90 minutes before exercising. The one exception is nighttime workouts. While the stimulant affects everyone differently, research in the Journal of Clinical Sleep Medicine found that people who were given caffeine three and even six hours before bed took longer to fall asleep and got fewer hours of rest than those who took a placebo. You may be better off skipping the pick-me-up whenever you exercise at night.

Your diet also plays an important role. "Consuming carbohydrates with caffeine can blunt the effects," Prins says. Swap your usual pregym peanut butter and toast with a lower-carb snack, like a hard-boiled egg, nuts, or yogurt. →

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