

**Matthew Axtman, DO**  
**Corewell Health Orthopedics**

## **A Secret Ingredient to Boost Performance**

Every runner is looking for an edge when it comes to competition or just a daily run. Even small factors can make the difference between a “good” or “bad” run. These include sleep, diet, hydration and stress, to name a few. Athletes may notice that if part of their daily routine is off, training may be more difficult.

Caffeine may help. You may have been told to avoid caffeine due to the concerns of dehydration with exercise, but caffeine in moderation may actually improve performance, according to an analysis of research by the British Journal of Sports Medicine.

There are positives and negatives to caffeine. Most of us drink it to wake up in the morning or for alertness and focus during the day. But there are other benefits of ingesting caffeine, including its antioxidants, a decreased risk of cardiovascular disease and diabetes and enhanced athletic performance. Caffeine can be found in coffee, soda, energy drinks, certain teas, energy bars and chocolate. Of course, caffeine may also have negative effects if consumed in large quantities or by those with specific medical problems. Drawbacks include headaches, nausea, increased urination, diarrhea and increased blood pressure.

The British Journal of Sports Medicine reviewed multiple studies over the past 14 years and found that there were significant benefits derived from the use of caffeine. Researchers found that caffeine can offer improved performance in speed, endurance, strength and aerobic exercise. This was noted not only during running, but also cycling, jumping, rowing and other activities. Although there are limitations in many of these studies. They do not discuss an optimal amount of caffeine consumption, timeframe in relation to exercise, or if athletes of a specific age and sex would benefit.

While more research is needed to determine a consistent dose recommendation for peak performance, there are multiple recommendations. The most accepted dosage is 1-2 cups of coffee, or 200-400 milligrams, approximately 60 minutes prior to exercise. At this point, the recommended dosage for a specific age, sex, weight, sport and goal is left to trial and error. Every athlete’s response to caffeine intake is going to be different.

If you do plan on incorporating caffeine into your workouts, you should start with low doses and increase slowly as you monitor your performance during training. If coffee is not your favorite, try another caffeinated beverage or foods such as chocolate, energy bars and nuts. If you have medical problems or are taking medications, please consult your doctor to ensure that caffeine is a safe option.

I hope you are having a successful and injury-free summer. If you are experiencing an injury or any pain, do not hesitate to reach out to one of our experienced sports medicine physicians at Corewell Health Orthopedics at (616) 267-8860. You can also find more information about our orthopedic program and providers on our [website](#).

---