Does caffeine affect athletic performance? [1]

Alice,

I play on the varsity soccer team. My team's coach and captains have told us not to drink beverages with caffeine because they dehydrate you. Is this true? Are there any other harmful effects of caffeine on athletes?

Answer

Dear Reader,

Your coach and captains may not be correct. Several studies, under various conditions, suggest that consuming caffeine prior to physical activity has no additional effect on sweat rates, total body water loss, or negative effect on athletic performance as compared to non-caffeinated products and it may provide a boost for you out on the soccer field!

Caffeine has been considered an ergogenic aid—a drug that increases performance as a result of the physiological effects it has on the body. While the exact mechanism isn't known for sure, some researchers believe that caffeine stimulates earlier and greater fat burning during exercise. This would help preserve the body's store of glycogen (the fuel muscles use) so that a person could exercise longer before feeling exhausted. This theory supports findings that caffeine improves performance in endurance events, such as long distance running and/or cycling. A review of literature on the effects of caffeine in short-term and high-intensity exercise concludes that the substance may also aid athletes' performance in team sport activities that require repetitive sprinting (like soccer) if ingested before the activity. Others believe that the stimulant effect of caffeine may help with alertness, mental clarity, and overall mood, all of which could help during a workout. For more information, check out Energy drinks and weight loss [2] from the Go Ask Alice! archives.

However, caffeine can affect people in different ways. While some people might notice a performance boost, others might suffer from dizziness, headaches, loss of coordination, abdominal cramps, or nausea—definitely not desirable on game day. Caffeine can also interfere with sleep patterns; overuse might mean that you're not well-rested enough when it comes time to play.

Do you notice that you experience some of these issues when you add caffeine to your diet? If so, you might want to opt out and focus your efforts on proper training, rest, and nutrition for optimal performance. If you don't, you can rest assured that caffeine does not seem to cause excessive dehydration (though make sure to drink plenty of water and other non-caffeinated
drinks, too) and may actually be of benefit when you’re on the field!

Alice!
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