

Caffeine's sport performance advantage for infrequent tea and coffee drinkers

19 January 2018



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A study led by sports scientists at Dublin City University has found that the performance enhancing benefits of caffeine are more apparent in athletes who do not drink caffeine-rich drinks such as tea, coffee, and energy drinks on a daily basis.

Researchers Dr. Brendan Egan and Mark Evans from the DCU School of Health and Human Performance examined the impact of [caffeine](#), in the form of caffeinated chewing gum, on the [performance](#) of 18 male team sport athletes during a series of repeated sprints. The athletes undertook 10 repeated sprints under conditions with and without two sticks of the caffeinated gum, which is equivalent to two strong cups of coffee.

They found that the caffeinated gum provided very little advantage to athletes whose bodies may have become desensitised to caffeine through a process called habituation, which occurs by having caffeine frequently.

However, the athletes who had a low habitual caffeine consumption maintained their

performance in repeated [sprint](#) tests after ingesting a caffeinated chewing gum, while the performance of athletes who consumed the caffeine equivalent of three or more cups of coffee per day worsened over the course of the ten repeated sprints. This indicated that this second group did not benefit from caffeine as a performance aid.

Caffeine is regarded as one of the most popular performance enhancing supplements among athletes. Its benefits include improved muscle strength, mental alertness, as well as reducing the perception of effort during intense activity, therefore helping athletes to perform faster and longer.

The findings from the DCU-led study were published in the *International Journal of Sport Nutrition and Exercise Metabolism*. They recommended that athletes who consume caffeine on a regular basis should reduce their consumption in the lead-up to a big performance, if they want to receive the benefits of a caffeine supplement as a performance aid.

More information: Mark Evans et al. Acute Ingestion of Caffeinated Chewing Gum Improves Repeated Sprint Performance of Team Sports Athletes With Low Habitual Caffeine Consumption, *International Journal of Sport Nutrition and Exercise Metabolism* (2017). DOI: [10.1123/ijsnem.2017-0217](https://doi.org/10.1123/ijsnem.2017-0217)

Provided by Dublin City University

APA citation: Caffeine's sport performance advantage for infrequent tea and coffee drinkers (2018, January 19) retrieved 13 October 2019 from <https://medicalxpress.com/news/2018-01-caffeine-sport-advantage-infrequent-tea.html>

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