

## **Caffeine has a small effect on 5-km running performance of well-trained and recreational runners.**

### **ABSTRACT**

The purpose of this study was to investigate if caffeine ingestion improves 5-km time-trial performance in well-trained and recreational runners. Using a double-blind placebo-controlled design, 15 well-trained and 15 recreational runners completed two randomized 5-km time-trials, after ingestion of either 5mgkg<sup>-1</sup> of caffeine or a placebo. Caffeine ingestion significantly improved 5-km running performance in both the well-trained and recreational runners. In comparison to the placebo trial, the caffeine trial resulted in 1.1% (90% CI 0.4-1.6) and 1.0% (0.2-2%) faster times for the well-trained and recreational runners. Reliability testing of the recreational runners indicated a test-retest error of measurement of 1.4%. We conclude that caffeine ingestion is likely to produce small but significant gains in 5-km running performance for both well-trained and recreational runners.