

Beetroot juice improves sprinting and decision-making during exercise

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Beetroot juice enhances performance

Rugby players take note: drinking high nitrate beetroot juice improves both sprint performance and decision-making during prolonged intermittent exercise such as rugby and football, according to scientists from the University of Exeter.

As excitement mounts for the Rugby World Cup, the research, published in the *European Journal of Applied Physiology* and [available on PubMed](#), adds further weight to the case for [beetroot juice](#) as a superfood for elite both elite and amateur sports players and athletes. Previously, the team at Exeter has regular beetroot juice drinks can help people to exercise

for 16% longer.

In the latest study, 16 male team sport players received 140ml of Beet It Sport, high nitrate beetroot juice for seven days.

On day seven, the sportsmen, who were all members of rugby, hockey or football teams, completed an intermittent sprint test which consisted of two 40 minute sessions of repeated two minute blocks. This consisted of a six second all-out sprint, 100 seconds active recovery and 20 seconds of rest, on an exercise bike. At the same time, they were given cognitive tasks designed to test how accurately and how fast they made decisions.

The participants carried out the same tests after drinking nitrate-rich beetroot juice and again after drinking a placebo version with the nitrate stripped out. Researchers found those who had consumed the nitrate-rich version saw an improvement in both sprint performance (3.5%) and speed of making decisions (3%) without hindering decision accuracy.

Chris Thompson, of the University of Exeter, who led the study, said: "This research is a really exciting landmark in the work conducted on nitrate supplementation so far. The improvement we found may seem small, but it's likely to provide a meaningful advantage to the athlete on the sports field. It could mean that team sport players are able to make those important decisions faster and cover more ground than their opponents in the seconds when it matters most."

Professor Andrew Jones PhD, Associate Dean for Research at the College of Life and Environmental Sciences, University of Exeter commented: "These new results suggest that beetroot juice could improve both physical performance and [decision-making](#) during team sports such as rugby and football. In events like the Rugby World Cup, every second counts in those crucial moments, so this improvement could make all the difference".

BEET IT shots are at the centre of worldwide research in over 150 universities into the benefits of natural dietary nitrate supplementation. The research has identified that their naturally high dietary [nitrate](#) content (400mg per shot) interacts with enzymes in saliva to generate nitric oxide in the blood system. Nitric oxide is a vasodilator that increases the flow of blood and oxygen to the muscles, thereby boosting strength and endurance.

Provided by University of Exeter

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