

Simple supplement aids powerful rugby performance, study finds

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Sore muscles and peak athletic performance do not mix. Otago

researchers have found a common health supplement may solve the issue.

The world-first research, published in the *European Journal of Sports Science*, studied a group of Chiefs Super Rugby players over five weeks of pre-season training, supplementing them twice daily with a protein drink containing [fish oil](#) (1546 mg of omega-3 PUFA; 551 mg EPA and 551 mg DHA).

The researchers, working in conjunction with University of Waikato as part of the Chiefs Innovation Group, and the University of Stirling, Scotland, found fish oil reduced lower body [muscle soreness](#), reduced fatigue, and better maintained countermovement jump performance (a measure of lower-body power).

Lead author Dr. Katherine Black, of the Department of Human Nutrition, says players' careers depend on their performance.

"Muscle soreness can have severe consequences for performance, so if we can help to reduce soreness then we can help to improve performance."

The team chose to add fish oil to a protein drink as protein ingestion post-exercise is known to be important for recovery and a "push towards multiple-nutrient interventions" is occurring, she says.

Fish oil has been a potential sports supplement for several years and the rugby team involved in this study intends to use it regularly, once a New Zealand supplier can be secured.

While fish oil is widely used for everything from brain health, hormonal balance and shiny hair, Dr. Black does point out it has its risks including to those prone to blood clotting. Those on medication should not take

supplements without medical approval and everyone else should exercise caution.

She believes a good place for the public to start in terms of supplementation, is to increase fish intake.

"I would go with a whole food approach for the majority of people; rugby players' training schedules are very different from the general population."

Dr. Black says the group intends to carry out further, longer-term research on the topic.

More information: Katherine Elizabeth Black et al. Adding omega-3 fatty acids to a protein-based supplement during pre-season training results in reduced muscle soreness and the better maintenance of explosive power in professional Rugby Union players, *European Journal of Sport Science* (2018). [DOI: 10.1080/17461391.2018.1491626](https://doi.org/10.1080/17461391.2018.1491626)

Provided by University of Otago

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