

Scientists examine the merits of fish oil supplements

March 23 2016

The effects of fish oil supplements on muscle growth has been investigated by a team of Stirling academics, revealing the tablets do not give gym-goers an advantage in the weight room.

Health and Exercise Science researchers from Scotland's University for Sporting Excellence joined forces with experts from the Institute for Aquaculture to test whether the capsules enhance the [muscle](#)'s ability to grow at an increased rate.

Their findings, published in *Physiological Reports*, reveal that [fish oil](#) supplementation makes no significant difference to [muscle growth](#) in healthy, resistance trained young men.

During the study, 20 individuals who work out at the gym regularly, received the equivalent of five grams of fish oil every day for eight weeks. The weight-lifters consumed a hearty breakfast in the laboratory before performing a series of leg presses and leg extensions and consuming 30 grams of protein powder.

Muscle biopsies were taken before and after the trial to assess how much of the omega-3 fats - thought to be the most important component of the fish oil for muscle - were taken up by the [muscle cells](#).

Professor Kevin Tipton of the School of Sport, said: "In recent years there have been many studies focusing on the benefits of fish oil as a dietary supplement, including its importance for muscle. We have found

that when it comes to building lean muscle mass and repairing damaged proteins, these capsules do not seem to make much of a difference for healthy men already undertaking resistance training.

"Working with our colleagues in the Institute for Aquaculture, we discovered there was no significant difference in the rate at which muscle adds new protein after exercise between participants who took the control capsule of coconut oil and those who ingested the [fish oil supplements](#). This finding suggests that omega-3 capsules do not give you the advantage in the gym that many have suggested over the past few years.

"The next stage is to focus on the response in people of varying ages and inactivity as this may identify a receptiveness to the supplement for individuals who have less established muscle mass and strength and different metabolic responses as a result."

Provided by University of Stirling

Citation: Scientists examine the merits of fish oil supplements (2016, March 23) retrieved 4 May 2024 from <https://medicalxpress.com/news/2016-03-scientists-merits-fish-oil-supplements.html>

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