

## High-dose fish oil is no better than low-dose for osteoarthritis of the knee

Standard fish oil capsules offer relief for people with painful osteoarthritis.

### INTRODUCTION

Osteoarthritis is a condition that makes a person's joints stiff and painful. It is caused by thinning of the cartilage within the joints, which allows the bones to rub against each other. It is the most common of all the different types of arthritis, increasing as people get older. Fish oil may be useful in osteoarthritis to help reduce inflammation and stop the loss of cartilage. Many people buy and use low-dose fish oil capsules without prescription. These are often a daily dose of 1 mL of fish oil.

### WHAT DID THE AUTHORS HOPE TO FIND?

The authors wanted to see whether a higher dose of fish oil would have a better effect than the low doses found in most commercially available capsules, and if this would reduce pain and stiffness in the affected knees.

### WHO WAS STUDIED?

The study included 202 adults with painful osteoarthritis in one or both knees. All patients were over the age of 40 and had no long-term history of taking high-dose fish oil.

### HOW WAS THE STUDY CONDUCTED?

This was a randomised, double-blind trial, which means that patients were assigned by chance to one of two treatment groups to receive either a high or low dose of fish oil every day for 2 years. Using chance in this way means that the groups will be similar and will allow the variable or treatment under investigation to be compared objectively. During the treatment neither patients nor their doctors knew which group they were in. Each group was given 15 mL of liquid oil each day. In the high-dose fish oil group, all of the 15 mL was fish oil. The low-dose fish oil group also got 15 mL of liquid oil each day, but only 2 mL was fish oil and the rest was plant oil. Patients in both groups were also allowed to use paracetamol for pain relief.

### WHAT WERE THE MAIN FINDINGS OF THE STUDY?

The study found that there was no advantage to taking a very high dose of fish oil over taking low dose fish oil in terms of pain, joint stiffness or the amount of cartilage in the joint. In fact, after 1 year the people taking low-dose fish oil had less painful knees than the people taking high-dose oil.

### ARE THESE FINDINGS NEW?

Yes, there has not been a trial before that has studied high- and low-dose fish oil in osteoarthritis, despite many patients using these oils.

### HOW RELIABLE ARE THE FINDINGS?

There are some limitations which may affect how reliable the findings are. For example, the study did not use a placebo (dummy drug).

### WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

It is possible that the plant oil that was mixed with the fish oil may have had an effect, and the authors are interested in looking at this in a future study.

### WHAT DOES THIS MEAN FOR ME?

If you have osteoarthritis (but not rheumatoid arthritis or other types of inflammatory arthritis), you may find that taking fish oil capsules will help your pain and stiffness. There is no need to take very high doses of fish oil. A simple low dose of two normal capsules every day could give you relief and help to protect your joints. If you are taking any other medicines you should talk to your doctor before adding any dietary supplements.

**Disclaimer:** This is a summary of a scientific article written by a medical professional ("the Original Article"). The Summary is written to assist non medically trained readers to understand general points of the Original Article. It is supplied "as is" without any warranty. You should note that the Original Article (and Summary)

may not be fully relevant nor accurate as medical science is constantly changing and errors can occur. It is therefore very important that readers not rely on the content in the Summary and consult their medical professionals for all aspects of their health care and only rely on the Summary if directed to do so by their medical professional. Please view our full Website Terms and Conditions. <http://www.bmj.com/company/legal-information/>

Date prepared: February 2016

Summary based on research article published on: 9 September 2015

**From:** Hill, C. *et al.* Fish oil in knee osteoarthritis: a randomised clinical trial of low dose versus high dose. *Ann Rheum Dis* 2016;75:23–29. doi: 10.1136/annrheumdis-2014-207169.

Copyright © 2016 BMJ Publishing Group Ltd & European League Against Rheumatism. Medical professionals may print copies for their and their patients and students non commercial use. Other individuals may print a single copy for their personal, non commercial use. For other uses please contact our [Rights and Licensing Team](#).