

New Clues to How Fish Oils Help Arthritis Patients

WEDNESDAY, Oct. 28 (HealthDay News) -- Researchers think they now understand the way that fish oils benefit people with [rheumatoid arthritis](#) and other conditions linked to inflammation.

The body converts an ingredient in fish oils called DHA into a chemical called Resolvin D2, which reduces the inflammation that can lead to various diseases, the scientists from Queen Mary, University of London and Harvard Medical School explained in their study published in the Oct. 28 issue of the journal *Nature*.

"We have known for some time that fish oils can help with conditions like [arthritis](#), which are linked to inflammation. What we've shown here is how the body processes a particular ingredient of fish oils into Resolvin D2. We've also looked in detail at this chemical, determining at least some of the ways it relieves inflammation. It seems to be a very powerful chemical and a small amount can have a large effect," Mauro Perretti, a professor of immunopharmacology at Queen Mary, University of London, said in a university news release.

"This research is important because it explains at least one way in which fish oils can help in different types of arthritis. We can also work on this chemical and see if it can be used not only to treat or even prevent arthritis, but also as a possible treatment for a variety of other diseases associated with inflammation," said Perretti, who led the U.K. research team.

Unlike current anti-inflammatory drugs, Resolvin D2 doesn't appear to suppress the immune system, the researchers noted.

In arthritis, the body's immune system attacks healthy tissue. An important part of this process occurs when white blood cells (leukocytes) stick to the inner lining (endothelium) of blood vessels. In lab tests, Perretti and colleagues found that Resolvin D2 prompted endothelial cells to produce small amounts of nitric oxide, which acts as chemical signal that discourages white blood cells from sticking to the endothelium, thus preventing inflammation.

-- Robert Preidt