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JUNE 6, 2017 / 6:23 PM / A MONTH AGO

**Does chondroitin trump an anti-inflammatory for arthritic knee pain?**

[Marilynn Larkin](http://uk.reuters.com/journalists/marilynn-larkin)

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A daily supplement of pharmaceutical grade chondroitin is as good as celecoxib (Celebrex) at relieving arthritic knee pain and doesn’t have dangerous side effects, researchers say.

Dr. Jean-Yves Reginster of Liege State University in Belgium and colleagues recruited 604 people over age 50 with knee osteoarthritis from five European countries and randomly assigned them to take 800 mg of the extra-pure chondroitin sulfate (Chondrosulf), 200 mg of celecoxib (Celebrex) or a placebo every day for six months.

Those who took chondroitin sulfate or celecoxib had similar levels of pain relief at the end of the study, and in both groups the improvement was greater than for those taking just a placebo, according to the report in Annals of the Rheumatic Diseases.

Reginster told Reuters Health the findings are in line with earlier studies showing pharmaceutical-grade chondroitin sulfate could significantly decrease the progression of knee osteoarthritis over a period of three years.

He stressed that pharmaceutical-grade chondroitin is not the same as over-the-counter supplements, which are made differently and can’t get into the joint in high enough concentrations to combat the causes of cartilage degradation and pain.

European regulatory bodies recommend pharmaceutical-grade chondroitin sulfate as well as pharmaceutical-grade glucosamine sulfate as first-line treatments for osteoarthritis, Reginster said by email, because of the side effects associated with celecoxib and other non-steroidal inflammatory drugs (NSAIDs) including stomach ulcers, bleeding, liver and kidney problems.

Dr. Michael Shepard of Hoag Orthopedic Institute in Orange, California, noted that the study had a relatively low number of participants and that most U.S. studies of this type would run two years rather than six months.

In addition, U.S.-based studies of chondroitin have had mixed results, said Shepard, who wasn’t involved in the study. Some have found the supplements to be as effective as ibuprofen (also an NSAID), and some have found that chondroitin sulfate is no more effective than placebo, he told Reuters Health.

“I tell my patients, ‘buyer beware,’” Shepard said in an email. “I tell them about the mixed results of chondroitin in the literature. I tell them to try chondroitin for one month as a trial and if they like it and feel better with it, then keep taking it.”

If chondroitin doesn’t work for them, he suggests taking an NSAID “periodically,” and to be aware of the side effects.

“If you are going to stay on an NSAID for a prolonged period then you need regular follow up with your doctor,” Shepard cautioned.

Dr. Rachel Wolfe of Wake Forest Baptist Medical Center in Winston-Salem, North Carolina, agreed that chondroitin is “reasonable to try” for some people, especially those with contraindications to NSAIDs.

“However, it should not replace other therapy such as quad strengthening exercises, and weight loss, which we know will provide benefit. It should be used in conjunction with these measures,” said Wolfe, who wasn’t involved in the study.

“Chondroitin is not a miracle pill, but if it allows people to feel less pain and be more active, thereby losing weight and strengthening muscles, then I think there may benefit,” Wolfe told Reuters Health by email. “Studies like this highlight that medicine is still an art - we do not have perfect answers, and we have to individualize for each patient.”

The study was sponsored by IBSA Institut Biochimique SA, a pharmaceutical company based in Lugano, Switzerland, that makes the chondroitin sulfate supplements used in the test.

SOURCE: [bit.ly/2rcPLh0](http://bit.ly/2rcPLh0) Annals of the Rheumatic Diseases, online May 22, 2017.