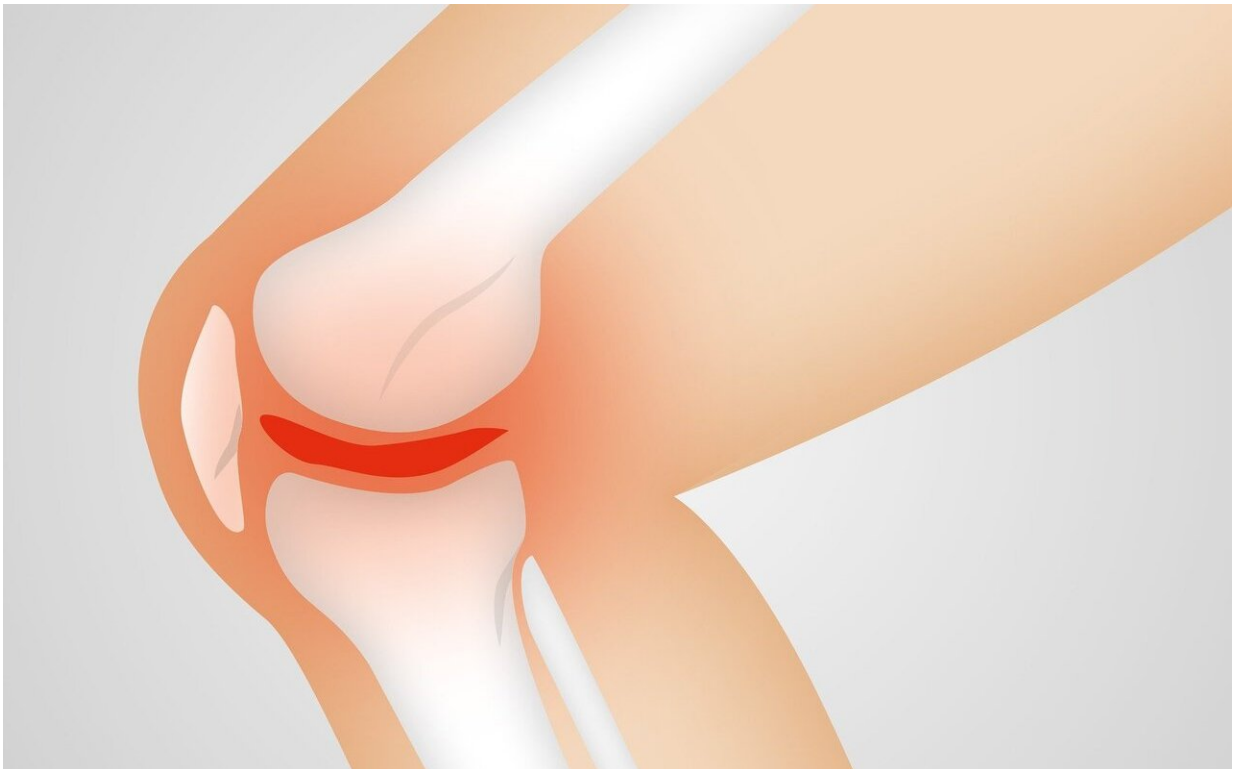


Bone drug may be beneficial for knee osteoarthritis

August 5 2020



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Bisphosphonates (a class of drugs that prevent the loss of bone density and used to treat osteoporosis and similar diseases) appear to be safe and beneficial for osteoarthritis patients.

Osteoarthritis (OA) is the most common form of arthritis and a leading cause of disability worldwide with more than 300 million suffering with the condition, yet there are no effective treatments to stop the [disease](#) or its progression. One of the [lesions](#) in OA that causes pain and progression of the structural pathology of the disease are [bone](#) marrow lesions.

Researchers believe bisphosphonates may alter bone marrow lesions, and thereby could improve pain in OA and halt its progression. Alternatively, they could also alter the mechanical properties of bone, thereby potentially contributing to detrimental effects.

Using data from the Osteoarthritis Initiative, a longitudinal cohort of people with or at risk for knee OA, the researchers identified women who started bisphosphonates and matched them to women who weren't on the drug. Measurements in bone marrow lesion volume were taken when they first started on [bisphosphonate](#) and then a year later. Changes in bone marrow lesion volume between the two groups were then compared.

"When we looked at those who had bone marrow lesions at baseline, we found that the women who started bisphosphonates had had more bone marrow lesions that decreased in size than the [women](#) who did not start bisphosphonates," explained corresponding author Tuhina Neogi, MD, Ph.D., professor of medicine and epidemiology at Boston University Schools of Medicine and Public Health. "These results suggest that bisphosphonates do not appear to be harmful, at least over one year, and perhaps may even help decrease bone marrow lesions in those that have them."

According to the researchers, effective treatments for osteoarthritis are desperately needed. "By examining existing data for potential signals of efficacy and safety, we can identify potentially promising therapies that

should be further tested in trials with the aim to ameliorate the pain of [osteoarthritis](#) and improve the quality of life for the millions of people worldwide that have this disease," added Neogi, chief of rheumatology at Boston Medical Center.

More information: Priyanka Ballal et al, The Relation of Oral Bisphosphonates to Bone Marrow Lesion Volume among Women with Osteoarthritis, *Osteoarthritis and Cartilage* (2020). [DOI: 10.1016/j.joca.2020.07.006](#)

Provided by Boston University School of Medicine

Citation: Bone drug may be beneficial for knee osteoarthritis (2020, August 5) retrieved 29 April 2024 from <https://medicalxpress.com/news/2020-08-bone-drug-beneficial-knee-osteoarthritis.html>

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