

Weight loss may prevent, treat osteoarthritis in obese patients

March 8 2013

Weight loss may prevent and significantly alleviate the symptoms of osteoarthritis, a progressive disease of the joints known as "wear and tear" arthritis, according to a literature review appearing in the March 2013 issue of the *Journal of the American Academy of Orthopaedic Surgeons* (JAAOS).

According to the article, obesity actually may trigger the biomechanical and inflammatory changes that cause osteoarthritis, and the pain and loss of mobility associated with the condition.

"There's a clear link between obesity and osteoarthritis, and the link is both from biomechanical factors as well as systemic factors. The systemic component appears to be significant," said Ryan C. Koonce, MD, an orthopaedic surgeon at Skagit Regional Clinics in Mount Vernon, Wash., and one of the authors of the literature review.

Approximately one half of osteoarthritis cases of the knee could be avoided in the U.S. if obesity was removed as a risk factor, according to the article. Other highlights include:

- Greater weight and load bearing across a particular joint leads to increased wear.
- [White adipose tissue](#) (WAT), a powerful endocrine organ that can trigger inflammation, is found in abundance in obese adults.
- Obesity is considered to be an underlying cause of hypertension,

[insulin resistance](#) and other metabolic syndrome conditions.

- Obesity is a strong [independent risk factor](#) for pain, especially in soft-tissue structures such as tendons.
- Weight loss can diminish pain, and restore function and quality of life in osteoarthritis patients, and possibly avert approximately 111,206 [total knee replacements](#) each year.

"It's important that doctors are aware of the different ways that obesity causes arthritis not only for treatment but for prevention of the condition," said Jonathan T. Bravman, MD, assistant professor in the Department of Orthopaedics at the University of Colorado, an orthopaedic surgeon, and a co-author of the study. "We are underutilizing weight loss as a primary treatment option for arthritis and joint pain."

Provided by American Academy of Orthopaedic Surgeons

Citation: Weight loss may prevent, treat osteoarthritis in obese patients (2013, March 8) retrieved 20 September 2024 from <https://medicalxpress.com/news/2013-03-weight-loss-osteoarthritis-obese-patients.html>

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