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## Debunking Medical Myths: Does Cracking Your Knuckles Cause Arthritis?

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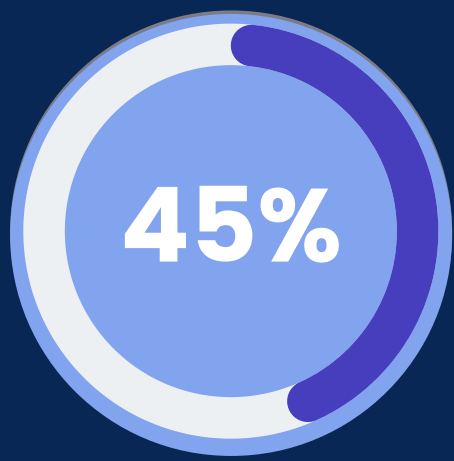
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# Myth: Does Cracking Your Knuckles Cause Arthritis?



- 25 to 45% of people are thought to have a knuckle cracking habit.
- Knuckle cracking habit is more common in men.<sup>1</sup>

Have you ever been told that cracking your knuckles causes osteoarthritis? Well, research says otherwise!

## What is the mechanism of "knuckle cracking"?<sup>2</sup>

Joints get manipulated in several directions



Pressure between joints decreases



Gases in the joint fluid form bubbles



Joint fills with gas bubbles, which then collapse



Sound of "knuckle cracking"



Though some believe that cracking knuckles creates enough force to damage cartilage, this theory remains unsubstantiated.<sup>4</sup>

## Multiple Studies Found No Association Between Knuckle Cracking and Osteoarthritis!<sup>1-4</sup>

- A 2017 study found **no significant difference** in people who cracked their knuckles on a regular basis and those who didn't.<sup>1</sup>
- Another study that investigated risk factors for osteoarthritis (OA) found that the **prevalence** of habitual knuckle cracking was **similar among people with and without OA**.<sup>2</sup>
- A randomized control study in 2017 found **no difference in grip strength** between habitual knuckle crackers and the control group.<sup>3</sup>

One study even shows that there is an increase in the range of motion of a joint after habitual knuckle cracking!<sup>1</sup>

## What Are Some Proven Risk Factors for Osteoarthritis?<sup>2</sup>

- Increasing Age
- Previous Trauma to Joints
- Familial History of OA
- History of Heavy Labor
- Genetic Disposition

If you or a loved one are experiencing symptoms of osteoarthritis, such as joint pain, stiffness, or swelling, consult a medical professional for treatment options!



1. Boutin RD, Netto AP, Nakamura D, et al. "Knuckle Cracking": Can Blinded Observers Detect Changes with Physical Examination and Sonography?. Clin Orthop Relat Res. 2017;475(4):1265-1271. doi:10.1007/s11999-016-5215-3  
2. deWeber K, Olszewski M, Ortolano R. Knuckle Cracking and Hand Osteoarthritis. The Journal of the American Board of Family Medicine. 2011;24(2):169-174. https://doi.org/10.3122/jabfm.2011.02.100156  
3. Yildizgören MT, Ekiz T, Nizamogullari S, et al. Effects of habitual knuckle cracking on metacarpal cartilage thickness and grip strength. Hand Surg Rehabil. 2017;36(1):41-43. doi:10.1016/j.hansur.2016.09.001  
4. Rizvi A, Loukas M, Oskouian RJ, Tubbs RS. Let's get a hand on this: Review of the clinical anatomy of "knuckle cracking". Clinical Anatomy. 2018;31:942-945. https://doi-org.proxy.lib.wayne.edu/10.1002/ca.23243