

Can genetics affect the need for surgery in patients with thumb osteoarthritis?

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Rhizarthrosis, also known as trapeziometacarpal osteoarthritis, is a type of osteoarthritis that affects the thumb, and treatments range from splints to surgery. Investigators have uncovered various genetic

differences between individuals with rhizarthrosis who undergo surgery for their condition versus those who opt for nonsurgical treatments.

The study, which is published in the *Journal of Orthopaedic Research*, included 1,083 [surgical patients](#) and 1,888 nonsurgical patients with rhizarthrosis, as well as 205,371 controls without osteoarthritis.

Researchers identified 7 genetic variants that may be associated with surgical rhizarthrosis and 3 variants suggestively associated with nonsurgical rhizarthrosis. They noted that uncovering [genetic differences](#) between these patient groups may reveal biological mechanisms that affect various aspects of rhizarthrosis.

"Our findings delve into the genetic architecture of osteoarthritis in the [thumb](#) base, hinting at a potential genetic influence on the need for surgery," said corresponding author Cecilie Henkel, MD, Ph.D., of Copenhagen University Hospital Hvidovre, in Denmark.

"While no solid conclusions about the effect of specific genetic variants on the need for [surgical treatment](#) should be made at this stage, our study marks a stride towards integrating genetic insights into the clinical management of osteoarthritis, with the long-term aim of refining diagnosis, treatment, and preventative strategies for this common and debilitating disease."

More information: Genetics may affect the risk of undergoing surgery for rhizarthrosis, *Journal of Orthopaedic Research* (2024). [DOI: 10.1002/jor.25753](https://doi.org/10.1002/jor.25753). onlinelibrary.wiley.com/doi/10.1002/jor.25753

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