Medical Xpress

Does an elevated immune response to a gut bacterial protein contribute to rheumatoid arthritis?

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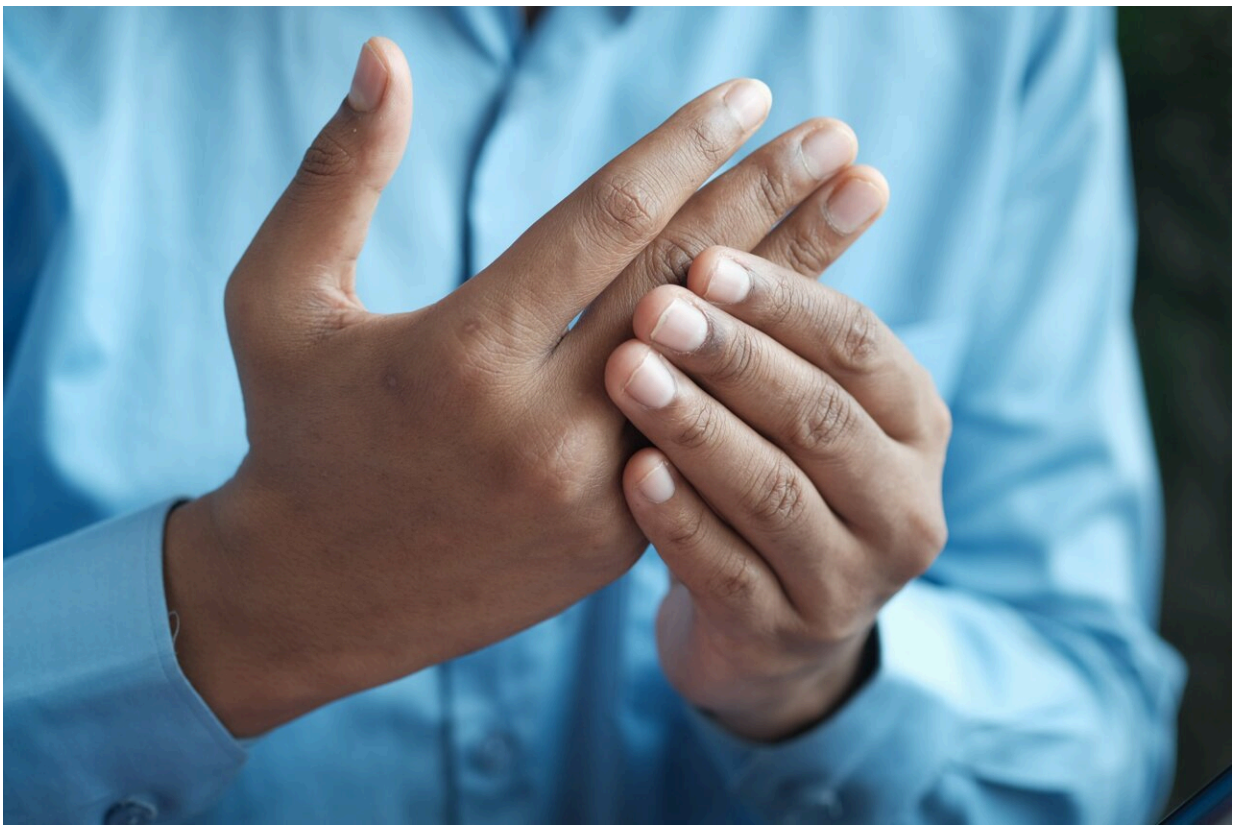

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Rheumatoid arthritis is a chronic autoimmune disease that is associated with aberrant immune responses. In a recent analysis published in

Arthritis & Rheumatology, people at risk for rheumatoid arthritis (RA) and those with the disease had elevated blood levels of antibodies against a bacterial protein that's normally found in the body.

The study compared 98 participants with established RA who were compared with 98 controls without the condition, as well as 67 participants at high risk for RA who were compared with 67 controls. Compared with controls, both the individuals with RA and at-risk individuals had higher blood levels of antibodies against a protein expressed by *Prevotella copri*, a bacterial strain typically found in the gut.

The authors noted that additional research into the roles of this and other microorganisms in rheumatoid arthritis is warranted.

"Our hope is that these findings can help to further elucidate the complex etiologic role of bacterial commensals in people who are at-risk of developing RA and in those with RA so that targeted therapies can be developed with the goals of providing better treatment and ultimately, prevention of the disease," said corresponding author Jennifer A. Seifert, MPH, of the University of Colorado Denver.

More information: Association of antibodies to Prevotella copri in anti-CCP-positive individuals at-risk for developing rheumatoid arthritis and in those with early or established rheumatoid arthritis, *Arthritis & Rheumatology* (2022). DOI: 10.1002/art.42370

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