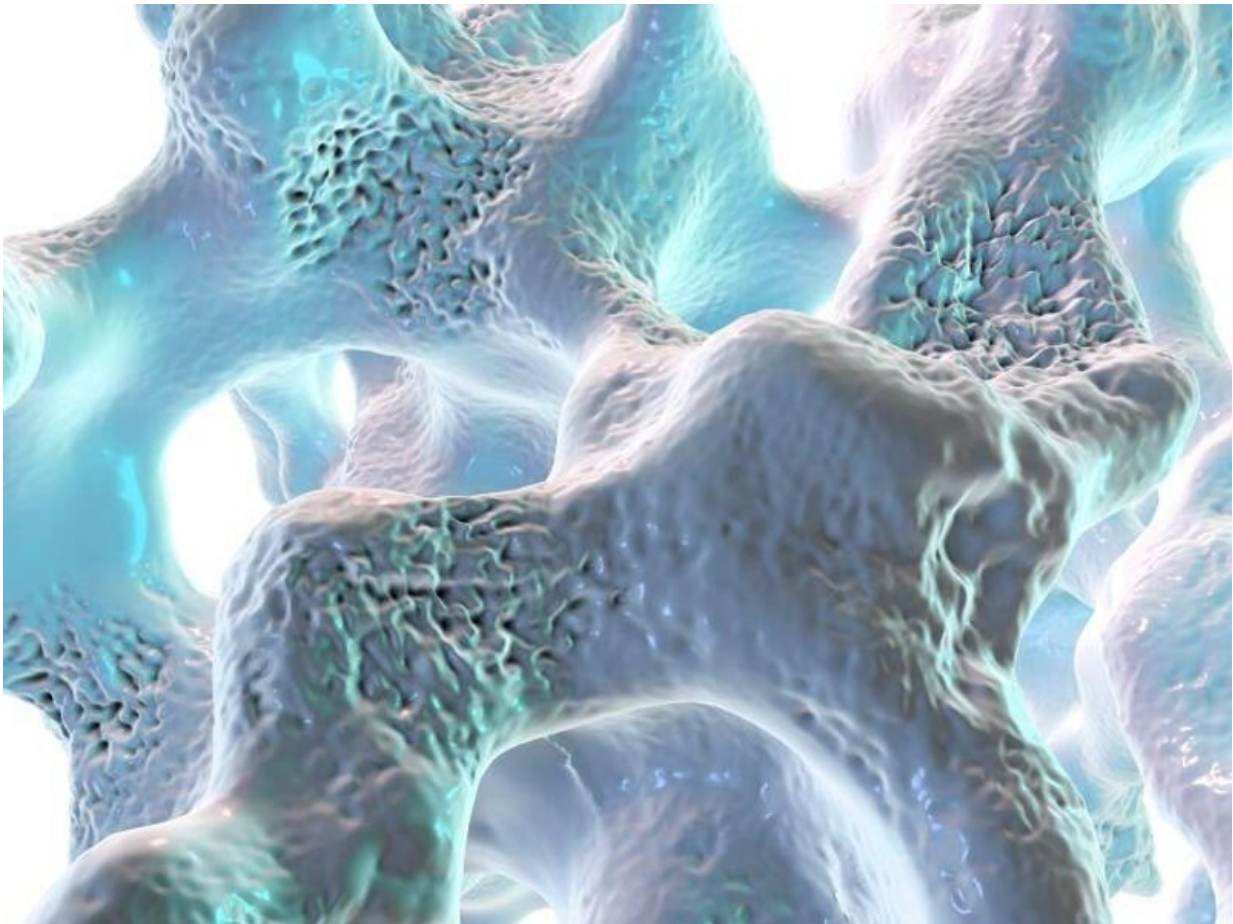


Genetically predicted rheumatoid arthritis linked to osteoporosis

April 20 2023, by Elana Gotkine



Genetically predicted rheumatoid arthritis (RA) is associated with

osteoporosis, according to a study published online April 11 in *Arthritis & Rheumatology*.

Yunyang Deng and Martin Chi Sang Wong, M.D., from the Chinese University of Hong Kong, used Mendelian randomization (MR) analyses to examine whether RA was causally associated with osteoporosis in Japanese populations. Data from [genome-wide association studies](#) were included on RA (4,199 cases and 208,254 controls) and osteoporosis (7,788 cases and 204,665 controls) from the Biobank Japan. Instrumental variables included 11 RA-related single nucleotide polymorphisms.

The researchers found that genetically predicted RA was positively associated with osteoporosis using the inverse-variance weighted method (odds ratio, 1.10). When MR Egger, weighted median, and weighted mode were exploited, the [positive association](#) was robust (odds ratios, 1.09, 1.09, and 1.08, respectively). The MR Egger test and MR Pleiotropy Residual Sum and Outlier test did not detect horizontal pleiotropy.

"This MR study revealed that genetically-predicted RA was positively associated with osteoporosis in Japanese populations," the authors write. "The findings were consistent and robust when different MR approaches were employed and a series of sensitivity analyses were performed."

More information: Yunyang Deng et al, Association between rheumatoid arthritis and osteoporosis in Japanese populations: a Mendelian randomization study, *Arthritis & Rheumatology* (2023). [DOI: 10.1002/art.42502](https://doi.org/10.1002/art.42502)

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