

## Regular statin use is associated with a reduced risk of developing rheumatoid arthritis

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There is an association between taking statins (lipid lowering drugs), and reduced risk of developing the chronic inflammatory disease, rheumatoid arthritis. These are the findings of a study by Gabriel Chodick and colleagues, published in this week's *PLoS Medicine*.

The researchers conducted a retrospective cohort study among the 1.8-million members of Maccabi Healthcare Services (a health maintenance organization [HMO]) in Israel to identify adults who regularly took statins and did not have rheumatoid arthritis. Using Maccabi's large automated datasets, the researchers then analyzed diagnostic codes to assess the incidence of newly diagnosed rheumatoid arthritis in this group between 1998 and 2007. To assess any potential bias, the researchers also examined any possible association between persistent statin use and the development of osteoarthritis, a common degenerative joint disease that is unlikely to be affected by statin use.

During the study follow-up period, there were 2,578 incident cases of rheumatoid arthritis and 17,878 incident cases of osteoarthritis. The unadjusted rate of rheumatoid arthritis among patients who did not persistently take statins was 51% higher than that of patients who used statins for at least 80% of the follow-up period. After adjusting for other possible confounders, patients who persistently took statins had a lower risk (risk ratio of 0.58) of developing rheumatoid arthritis compared with patients who did not persistently take statins. There was only a



small short term decrease in risk ratio in patients taking statins and the development of osteoarthritis. (hazard ratio of 0.85)

This work needs to be confirmed in other populations before its clinical significance, if any, is clear. As the authors conclude: "Larger, systematic, controlled, prospective studies with high efficacy statins, particularly in younger adults who are at increased risk of rheumatoid arthritis, are needed to confirm these findings and to clarify the exact nature of the biological relationship between adherence to statin therapy and the incidence of rheumatoid arthritis."

**More information:** Chodick G, Amital H, Shalem Y, Kokia E, Heymann AD, et al. (2010) Persistence with Statins and Onset of Rheumatoid Arthritis: A Population-Based Cohort Study. PLoS Med 7(9): e1000336. doi:10.1371/journal.pmed.1000336

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