

Patients with early arthritis consume less alcohol than controls, regardless of type of arthritis

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Patients who have early arthritis consume less alcohol than controls, regardless of the type of arthritis, according to a new study published online today in the journal *Rheumatology*. In rheumatoid arthritis (RA) specifically, the inverse association between alcohol and disease was greater in men than it was in women.

Many new [risk factors](#) for RA have been discovered, although the only environmental risk factor that has been consistently shown to be associated with the disease is smoking. Studies examining alcohol consumption and RA have so far had conflicting results. In this new study, Annekoos L. Huidekoper, Diane van der Woude, and colleagues set out to investigate whether there is an association between alcohol consumption and [arthritis](#) in general, and with RA in particular.

A total of 992 patients who had had arthritis and different diagnoses including RA, [osteoarthritis](#), [reactive arthritis](#), spondylarthritis, and psoriatic arthritis for two years or less, as well as 5,868 controls, were asked either by a trained research nurse, or through self-administered questionnaires, about their alcohol consumption. Those interviewed by a nurse were asked for an exact number of [alcoholic drinks](#) consumed per week, while those who filled in the questionnaire were asked (a) whether they consumed alcohol, and (b) if they did, how many units per week did they consume?

There was a striking inverse relationship between drinking alcohol and the presence of all forms of arthritis. While 83% of the controls reported [drinking alcohol](#), 53-68% of arthritis patients reported consuming alcohol. The lowest figure came from respondents with ACPA-positive RA, while the highest figure came from patients with [psoriatic arthritis](#). In patients with RA, the inverse

association between alcohol and the disease was greater in men than it was in women, although remarkably this difference was not seen in the patients with other types of arthritis. However, the study did not find any significant dose-response relationship, nor did they detect an association between alcohol and the rate of joint destruction when examined over seven years.

Diane van der Woude, one of the lead authors of the study, commented: "Our findings can be interpreted in several ways. One hypothesis might be that alcohol may suppress both the innate and adaptive immune system leading to a decrease of joint inflammation, as has been suggested by some previous studies.

"Another possible explanation for our findings is that people with arthritis drink less alcohol due to their illness. This explanation seems probable since we observed a relationship between alcohol and the level of inflammation."

Dr van der Woude also said: "The observed differences between men and women can also be interpreted in different ways. Perhaps men are more susceptible to the influence of alcohol on the pathophysiology of RA, or the decrease in alcohol consumption caused by the decrease in general well-being is more evident among individuals who consume more alcohol to begin with (often men) and who develop the most severe disease."

While the study does have limitations, such as the risk of interviewer bias and recall bias, it is, to the authors' knowledge, the first to include not just patients with RA, but also patients with other types of arthritis, and the finding that alcohol is also inversely associated with these other types of the disease sheds new light on the association between [alcohol consumption](#) and RA. It also

questions whether the effect of alcohol on the underlying pathophysiology is specific to RA.

More information: 'Patients with early arthritis consume less alcohol than controls, regardless of the type of arthritis' by Annekoos L. Huidekoper, Diane van der Woude, Rachel Knevel, Annette H. M. van der Helm-van Mil, Suzanne C. Cannegieter, Frits R. Rosendaal, Margreet Kloppenburg, and Tom W. J. Huizinga, *Rheumatology*, DOI: [10.1093/rheumatology/ket212](https://doi.org/10.1093/rheumatology/ket212)

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