

Women who consume large amounts of tea have increased risk of rheumatoid arthritis

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Women who drink tea have an increased risk of developing Rheumatoid Arthritis (RA) compared with those who drink none ($p=0.04$), according to results presented today at EULAR 2010, the Annual Congress of the European League Against Rheumatism in Rome, Italy. Further results from the same study showed no correlation between the amount of coffee consumption and RA incidence ($p=0.16$).

The results of the US based longitudinal cohort study involving 76,643 women showed a positive association of incident RA in [tea](#) drinkers with an increasing Hazard Ratio (HR) observed alongside tea consumption ($p=0.03$). Consuming any amount of tea carried a significant risk of developing RA (HR 1.40 (95%CI 1.01-1.93) $p=0.04$) and women who drank ≥ 4 cups of tea per day had an increased risk of developing RA compared to those who drank none (HR 1.78 (95%CI 0.83-3.82)).

An analysis of the method of preparation of [coffee](#) (filtered vs unfiltered) and presence or lack of caffeine in the beverage did not show any significant associations with RA or Systemic Lupus Erythematosus (SLE, an autoimmune disease in which the immune system harms the body's own healthy cells and tissues) (RA: filtered $p=0.08$, unfiltered $p=0.38$, SLE: filtered $p=0.74$, unfiltered $p=0.97$). No increase was shown in the risk of developing RA in participants who drank coffee compared to those that did not (RA: HR 1.09 (95%CI 0.77-1.54) $p=0.63$).

"We set out to determine whether tea or coffee consumption, or the

method of preparation of the drinks was associated with an increased risk of RA or SLE - it is surprising that we saw such differences in results between tea and coffee drinkers," said Professor Christopher Collins, Assistant Professor of Medicine, Georgetown University Medical Center, Washington, USA. "This does make us wonder what it is in tea, or in the method of preparation of tea that causes the significant increase in risk of developing RA."

Data on women aged 50-79 were taken from the Women's Health Initiative Observational Study database (a major 15-year research program to address the most common causes of death, disability and poor quality of life in postmenopausal women) where participants completed a self-administered questionnaire providing information on daily consumption of coffee and tea.

The relationships between drinking tea and coffee and the risk of RA or SLE were assessed in age-adjusted models and in multivariate Cox proportional hazard models (a statistical approach to estimating survival data). At three years follow up, the diagnosis of incident RA was determined using self-reporting and respondent's feedback on use of disease modifying anti-rheumatic drugs (DMARDs). The variables studied in the RA population were also investigated in [women](#) with SLE, but no significant associations were found.

"These are very interesting findings and we hope that additional research will investigate this topic further. We do assert the need for caution in the interpretation of these findings as no strong causation effect has been confirmed, and encourage patients with rheumatic diseases to consult their physician before making any significant changes to their diet or caffeine intake" said Professor Paul Emery, President of EULAR and arc Professor of Rheumatology, Leeds Institute of Molecular Medicine, University of Leeds, UK

Provided by European League Against Rheumatism

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