

# Childbirth increases risk of ACPA-negative rheumatoid arthritis

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Epidemiological data presented today at EULAR 2013, the Annual Congress of the European League Against Rheumatism, demonstrate that pregnancy carried to childbirth (parity) increases the risk of ACPA-negative\* rheumatoid arthritis (RA).

The increased risk was demonstrated in women aged 18-44 who have had a child (2.1, 95% CI 1.4-3.2), but not in older women, and was more pronounced among those women with delivery during the first year of symptoms.

RA is an autoimmune disease characterised by inflammation of the joints and tendons. As a [chronic condition](#), RA can cause pain, stiffness, progressive joint destruction and deformity, and reduce physical function, quality of life and life expectancy. Prevalence varies between 0.3% and 1%, with the disease more common in women than men.

"It has been suggested that the risk of RA is decreased during pregnancy but increased after delivery. Our data demonstrates that the increased risk after delivery is only associated with ACPA-negative RA and not ACPA-positive RA."

"Our findings of different impact of parity history on the two subgroups of RA add further evidence to the notion that RA comprises two different disease entities with different aetiology," said lead author of the study Cecilia Orellana, Institute of [Environmental Medicine](#), Karolinska Institutet, Karolinska University, Stockholm, Sweden.

The Swedish population-based EIRA (Epidemiological Investigation of RA) case-control study was comprised of 2,035 female cases aged 18-70, and 2,911 matched controls collected between 1996 and 2009. Parity, post-partum period before onset of symptoms and age at first birth were assessed by means of a questionnaire.

"Further studies are needed to fully explore the [biological mechanisms](#) behind our findings, but reproductive factors may partly explain the notoriously higher incidence of RA among women" Ms Orellana concluded.

**More information:** \* ACPA, anti-citrullinated protein antibody; specific and sensitive diagnostic marker for RA which can be detected years before the first clinical manifestation of RA. ACPA-positive and ACPA-negative disease are associated with different genetic and environmental risk factors, fuelling hypotheses of different underlying pathophysiology.<sup>2</sup>

1. Orellana C et al., The association between parity and rheumatoid arthritis: results from the Swedish EIRA study [abstract]. EULAR Annual European Congress of Rheumatology; 12-15 June 2013; Madrid, Spain. Abstract nr. OP0149.

2. Willemze A, Böhringer S, Knevel R, et al. Ann Rheum Dis (2011). [doi:10.1136/annrheumdis-2011-200421](https://doi.org/10.1136/annrheumdis-2011-200421)

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