

PRESS RELEASE

EMBARGOED UNTIL 10 MAY 2026 AT 15:05 CEST

Large-scale Nordic study discovers link between polycystic ovary syndrome and heart disease

Heart disease risk has been found to increase in women with polycystic ovary syndrome (PCOS), even in those with normal weight, according to research presented at the 28th European Congress of Endocrinology in Prague. This long-term study is the first and largest carried out on the association between PCOS and heart disease across three Nordic countries and highlights the importance of regular medical screenings in these women.

In this collaborative study, Professor Dorte Glintborg from the University of Southern Denmark and Odense University Hospital, along with colleagues in Finland and Sweden, examined 127,517 women with PCOS and compared them to 587,810 women without PCOS, aged 15-50 years. The researchers followed these women for an average of 10 years and found that the risk of developing heart disease increased by 32% in women with PCOS. In addition, women with PCOS who were of normal weight (BMI < 25 kg/m²) and/ or without type 2 diabetes had a 40% greater risk of developing heart disease. In individual countries, the risk in Denmark, Finland, and Sweden was 37.7%, 48.6%, and 41.7%, respectively.

Though the cardiovascular disease risk in women with PCOS is well-studied in smaller cohorts and from individual countries, there is little research on what occurs in women with PCOS who are of normal weight or do not have type 2 diabetes, let alone in three different countries. “To our knowledge, our study is the first to combine results from several nationwide study cohorts and evaluate the prospective risk of cardiovascular disease in women with polycystic ovary syndrome,” said Professor Glintborg.

Professor Glintborg added: “In comparison with previous large-scale studies, we found comparable risk of cardiovascular disease in women with polycystic ovary syndrome (PCOS) but these had not looked into normal-weight women with polycystic ovary syndrome as a separate group before.”

“The fact that women with PCOS of normal weight also have an increased cardiovascular disease risk suggests that the biology of the condition itself – such as the high levels of testosterone – may affect the cardiovascular system, independently of weight and type 2 diabetes,” she said.

“Women of normal weight with PCOS are more likely to have higher blood pressure than women of normal weight without PCOS — a well-established independent risk factor for cardiovascular disease. This may mean that the high levels of testosterone these women generally have could cause the blood vessels to constrict and become less flexible, which might eventually strain the heart over time,” explained Professor Glintborg.

“We are most likely moving away from seeing PCOS as one single, uniform diagnosis but rather PCOS could be divided into different long-term risk patterns, such as diabetes and cardiovascular disease. In the long term, we hope to be able to give each woman a more precise picture of her risk and a plan that extends beyond the next fertility treatment,” said Professor Glintborg.

The results of this study were recently published in [European Journal of Endocrinology](#).

-----ENDS-----

Abstract

OC4.3

Increased prospective cardiovascular disease risk in 127,517 Nordic women with polycystic ovary syndrome. A national cohort study.

Background: Cardiovascular disease (CVD) risk factors are prevalent in women with PCOS, but prospective data regarding CVD in population-based cohorts are limited.

Aim: To investigate prospective risk of CVD in Nordic women with PCOS.

Design: National register-based study in women with PCOS and age-matched controls originating from Denmark (PCOS Denmark, N= 27,298, controls, N= 135,019), Finland (PCOS Finland, N= 20,765, controls, N=59,122), and Sweden (PCOS Sweden, N= 79,454, controls, N=393,669). The main study outcome was CVD. CVD was defined according to ICD-10 diagnostic codes for major adverse cardiac events, pulmonary embolism and/or deep venous thrombosis. Cox regression analyses estimated HR with 95% CI and adjusted analyses included BMI and education.

Results: The median age at cohort entry was 28 years (Denmark) and 29 years (Finland and Sweden) and the median follow-up time was 8.0 to 10.0 years. The unadjusted hazard ratio (HR, 95% CI) for CVD in women with PCOS was 1.30 (1.20; 1.41) in Denmark, 1.45 (1.31; 1.60) in Finland, and 1.52 (1.44; 1.60) in Sweden. Models remained significant after adjusting for obesity and level of education. In a combined meta-analysis including all countries (PCOS, N= 127,517, controls, N= 587,810, the adjusted HR for CVD in women with PCOS was 1.32 (1.25; 1.39). In women with BMI < 25 kg/m² and no type 2 diabetes, the adjusted HR for CVD risk was 1.40 (1.26; 1.55).

Conclusion: The risk of CVD was increased in women with PCOS across the three Nordic countries, also among women with BMI < 25 kg/m².

Funding: This work was supported by the Region of Southern Denmark, Danish Medical Council (Ingemann O. Bucks Fund), Danish Research Council, Odense University Hospital, Independent Research Fund Denmark, Research Council of Finland, Sigrid Juselius Foundation, National Regional Fund, Forskningsrådet (DFF), and Novo Nordisk Foundation.

Notes for Editors:

1. For press enquiries, or to arrange an interview with the study authors, please contact the ECE 2026 Press Office:

Julianna Photopoulos

Mob: +44 (0) 777 2264482

Email: media@ese-hormones.org

2. The study '**Increased prospective cardiovascular disease risk in 127,517 Nordic women with polycystic ovary syndrome. A national cohort study**' will be presented on **Sunday 10 May 2026, 15:05 - 15:15 CEST**, at the European Congress of Endocrinology at the Prague Congress Centre (PCC) in the Czech Republic.
3. The 28th European Congress of Endocrinology (ECE) is held at the Prague Congress Centre (PCC) in the Czech Republic, on 9-12 May 2026. See the full scientific programme [here](#).
4. The [European Society of Endocrinology](#) (ESE) provides a platform to develop and share leading research and best knowledge in endocrine science and medicine. By uniting and representing every part of the endocrine community, we are best placed to improve the lives of patients. With over 5,400 individual members and through the 50 National Societies involved with the ESE Council of Affiliated Societies (ECAS) ESE represents a community of over 20,000 European endocrinologists. We inform policy makers on health decisions at the highest level through advocacy efforts across Europe.