

Endocrine experts call for more research into leading cause of infertility

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More research is needed to better understand polycystic ovary syndrome - one of the leading causes of infertility, according to the Scientific Statement issued by the Endocrine Society.

As many as 5 million women nationwide may have [polycystic ovary syndrome](#) (PCOS), according to the [U.S. Department of Health and Human Services' Office on Women's Health](#).

Although [PCOS](#) is the most common hormonal disorder among women in their reproductive years, many aspects of the condition are not fully understood. Because PCOS causes diverse symptoms that can vary among individual women, the definition and even the name PCOS have been subject to debate. In its [Clinical Practice Guideline](#), the Society recommended that a diagnosis be made if adult women exhibited two of the three cardinal features of the condition:

- Excess production of male hormones called androgens.
- Anovulation, a condition where the ovary does not release a mature egg each month. This causes irregular menstrual cycles.
- The formation of clusters of pearl-size cysts containing immature eggs in the ovaries, which is called polycystic ovaries.

Many women who have PCOS struggle with infertility. The condition also has been linked to an increased risk of developing diabetes and other metabolic problems, [cardiovascular disease](#) and [mental health disorders](#) such as depression.

"PCOS disproportionately affects certain ethnic groups, and individual women who have the condition can experience a variety of symptoms," said Richard S. Legro, MD, Vice Chair of Research in the Department of Obstetrics and Gynecology and Professor of Obstetrics and Gynecology and Public Health Sciences at Penn State College of Medicine, as well as chair of the task force that developed the statement. "Researching the genetic and environmental factors that contribute to these variations could lead to the development of precision treatments personalized for [women](#) who have PCOS."

Normal development of the ovaries during adolescence can mimic the appearance of ovarian cysts, which makes it challenging to diagnose PCOS in [teenage girls](#). Establishing diagnostic criteria for adolescents would make it possible to track how PCOS develops throughout childhood and into the reproductive years. The statement calls for more research in this area.

Earlier diagnoses could pave the way for longitudinal studies to better evaluate interventions to target PCOS and the reproductive, metabolic and psychological conditions tied to it.

"If [health care providers](#) were armed with better strategies for diagnosing PCOS in teenage girls, they would be able to intervene sooner to address risk factors for diabetes and cardiovascular disease," Legro said. "Earlier diagnosis is crucial for gaining a better understanding of the long-term effects of PCOS."

In the statement, the Society also calls for:

- More cell and animal models of PCOS to improve understanding of the condition's origins.
- Research into how molecular mechanisms interact to control function of the ovaries. A better understanding of this could help

identify ways to address the development of cysts and other reproductive problems.

- Scientific studies of genes that may contribute to the development of PCOS and its symptoms.

More information: Daniel A. Dumesic et al. Scientific Statement on the Diagnostic Criteria, Epidemiology, Pathophysiology, and Molecular Genetics of Polycystic Ovary Syndrome, *Endocrine Reviews* (2015).

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Provided by The Endocrine Society

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