



PCOS OR PCOD: ARE THEY REALLY THE SAME?

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Abstract

Few medical acronyms generate as much public confusion as PCOS and PCOD. Women searching for information about irregular periods, weight gain, acne, or difficulty conceiving routinely encounter both terms — sometimes in the same article, sometimes used interchangeably, and sometimes presented as two distinct diseases. This review article untangles the terminology. Drawing on international diagnostic guidelines and the clinical literature, it argues that PCOS (polycystic ovary syndrome) and PCOD (polycystic ovary disease or polycystic ovarian disease) refer to the same underlying condition, with the difference lying in convention and geography rather than biology. The article traces the history of both terms, explains the current diagnostic framework (the Rotterdam criteria), summarizes what is known about the hormonal and metabolic disturbances involved, outlines the condition's clinical features and long-term health implications, and surveys evidence-based approaches to management. It concludes that while the labels may differ from one clinic or country to another, the condition they describe is one — and clarity of language matters because clarity leads to better diagnosis, better treatment, and less fear.

Keywords: PCOS; PCOD; polycystic ovary syndrome; hyperandrogenism; insulin resistance; Rotterdam criteria

1. Introduction

Ask ten women what PCOS is and at least a few will mention PCOD in the same breath — often with the worried question of whether one is more serious than the other. The confusion is entirely understandable. Medical reports from one hospital may say "polycystic ovaries," a specialist may write "PCOS," a well-



meaning relative may speak of "PCOD problems," and the internet, as it so often does, amplifies the uncertainty until two words begin to sound like two diagnoses.

This article has a simple goal: to answer the question in its title clearly, and then to build a solid understanding of the condition behind both acronyms. The short answer, as the sections that follow will show, is that PCOS and PCOD are not different diseases. They are different names — used with different frequencies in different regions and eras — for the same complex endocrine disorder. Understanding why two names exist, and why one has become the international standard, is the first step toward understanding the condition itself.

2. PCOS and PCOD: Tracing the Two Terms

2.1 Where Each Term Comes From

The story begins in 1935, when American gynecologists Irving Stein and Michael Leventhal described a group of women with enlarged ovaries containing multiple small cysts, irregular or absent periods, and signs of excess male hormones. Their report gave rise to the name "Stein-Leventhal syndrome," which persisted for decades. As medical understanding deepened, it became clear that the small "cysts" on the ovaries are in fact immature follicles — eggs that began to develop but were never released — and that the condition extended far beyond the ovaries, involving metabolism, skin, and long-term health.

Out of this evolution came two parallel labels. "Polycystic ovarian disease," abbreviated PCOD, became common in parts of South Asia and in older British literature — the word "disease" reflecting an era when the condition was seen mainly as an ovarian abnormality. "Polycystic ovary syndrome," abbreviated PCOS, gradually became the preferred term internationally because it better captures reality: PCOS is a syndrome, meaning a recognizable pattern of signs and symptoms involving multiple body systems, not a single-organ disease confined to the ovaries.

2.2 How the Terms Are Used Today

In contemporary practice, the distinction is essentially geographic and generational rather than scientific. Table 1 summarizes the comparison.

Aspect	PCOS	PCOD
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Full form	Polycystic ovary syndrome	Polycystic ovarian disease (also written as polycystic ovary disorder)
Nature of term	Syndrome — a multisystem pattern	Disease/disorder — suggests a single-organ problem
Usage today	The international standard; used in WHO literature, research journals, and current guidelines	Largely regional (especially South Asia) and older literature; still common in everyday speech and some clinics
Diagnostic guidelines	Defined by the Rotterdam criteria (2003, revised 2023)	No separate guidelines exist under this name
Underlying condition	The same hormonal and metabolic disorder	Identical to PCOS

Table 1. PCOS versus PCOD: a comparison of terminology, not of diseases.

Notably, no major medical body recognizes PCOD as a separate diagnosis. The American College of Obstetricians and Gynecologists, the Endocrine Society, the World Health Organization, and the international evidence-based guideline for PCOS (most recently updated in 2023) all use the term PCOS. When a report says PCOD and another says PCOS, they are describing the same patient.

3. What the Condition Actually Is

3.1 The Hormonal Picture

Beneath the naming debate lies a genuinely complex endocrine disorder. At its core, PCOS involves a combination of hormonal disturbances. The ovaries produce higher-than-normal levels of androgens — the so-called "male hormones" that



women also make in small amounts. This hyperandrogenism drives many of the visible features of the condition: acne, excess hair growth on the face and body (hirsutism), and scalp hair thinning. At the same time, a large proportion of women with PCOS have insulin resistance, in which the body's cells respond poorly to insulin. The pancreas compensates by producing more insulin, and elevated insulin in turn stimulates the ovaries to produce even more androgens — a self-reinforcing cycle that links the hormonal and metabolic sides of the disorder. The classic ultrasound appearance — an ovary studded with many small follicles, often described as a "string of pearls" — is a consequence rather than a cause. Because ovulation is irregular or absent, follicles begin to mature each month but stall before releasing an egg, accumulating as small fluid-filled structures. Importantly, having polycystic-appearing ovaries on an ultrasound alone does not establish the diagnosis; many women without PCOS show this appearance, particularly adolescents, and the updated 2023 guideline has removed the ultrasound criterion for adults in some assessment pathways, emphasizing instead irregular ovulation and clinical or biochemical hyperandrogenism.



Figure 1. Transvaginal ultrasound image of a polycystic ovary, showing multiple small follicles arranged around the ovarian periphery.

3.2 Why It Develops

The precise origin of PCOS remains an active research question, but the evidence points to a combination of genetic predisposition and environmental triggers. PCOS



runs strongly in families: daughters and sisters of women with the condition have a substantially higher likelihood of developing it. Genome-wide studies have linked the condition to variants in genes involved in androgen production, insulin signaling, and ovarian function. On the environmental side, weight gain and diet appear to amplify the expression of the underlying predisposition — which helps explain why the condition can vary so much in severity between individuals, and why the same woman may experience very different symptoms at different stages of life.

4. Recognizing and Diagnosing PCOS

4.1 The Rotterdam Criteria

Internationally, diagnosis rests on the Rotterdam criteria, agreed in 2003 and reaffirmed in the 2023 international guideline. Under these criteria, a diagnosis requires at least two of three features, after excluding other conditions that can mimic PCOS (such as thyroid disorders, elevated prolactin, or non-classic congenital adrenal hyperplasia):

Criterion	How It Is Assessed	What It Reflects
Irregular or absent ovulation	Menstrual history — cycles persistently longer than ~35 days, fewer than ~8–9 periods per year, or absent periods	Disturbed ovarian cycle
Clinical or biochemical hyperandrogenism	Signs such as hirsutism, acne, hair thinning; or elevated androgen levels on blood tests	Excess male-hormone activity
Polycystic ovarian morphology on ultrasound	Elevated follicle count or enlarged ovarian volume on imaging	Accumulation of arrested follicles

Table 2. The three Rotterdam criteria: at least two of three are required for diagnosis, with other causes excluded.



4.2 The Clinical Spectrum

One of the most important — and most underappreciated — facts about PCOS is how varied it is. Some women meet every criterion and struggle with severe symptoms; others have only irregular periods and mildly elevated androgens; a significant minority have no visible symptoms at all and learn of the condition only when they have difficulty conceiving. Table 3 summarizes the common clinical features and their approximate frequency in affected women.

Feature	Approximate Frequency	Notes
Menstrual irregularity	Very common (often 70–80% or more)	Ranges from slightly long cycles to complete absence of periods
Hirsutism (excess hair growth)	Roughly 60–70%	Most noticeable on face, chest, abdomen; varies with ethnic background
Acne and oily skin	Common	Often persists beyond the teenage years
Scalp hair thinning	Common, especially with age	Pattern similar to male-pattern hair loss
Weight gain / central obesity	Present in a substantial subset, not all	Strongly linked to insulin resistance
Infertility or subfertility	A frequent presenting complaint	Usually related to infrequent ovulation; often responsive to treatment
Acanthosis nigricans	Seen in insulin-resistant cases	Dark, velvety skin patches, typically on the neck or underarms

Table 3. Common clinical features of PCOS and their approximate frequency. Frequencies vary between studies and populations.

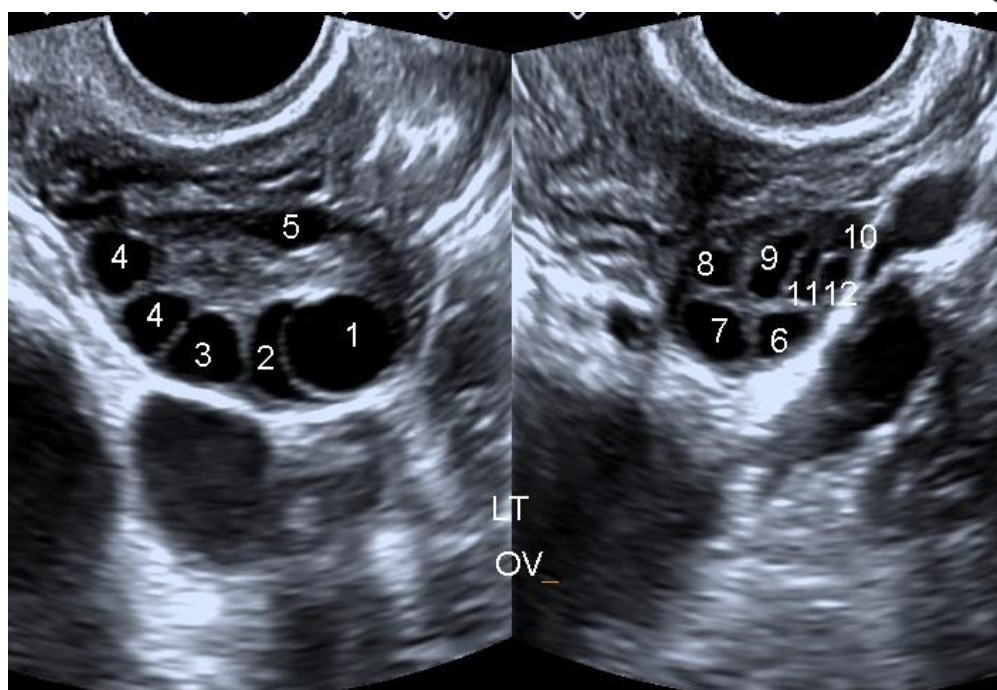


Figure 2. Ultrasound images of a polycystic left ovary with individually labeled follicles (Radiopaedia case).

5. Beyond the Ovaries: Long-Term Health Implications

Part of the reason the word "syndrome" won out over "disease" is that PCOS reaches well beyond reproductive health. The metabolic dimension is the most consequential: women with PCOS — particularly those who are overweight — have a substantially elevated risk of developing type 2 diabetes, and screening for glucose intolerance is a standard part of long-term care. Cardiovascular risk factors, including unfavorable cholesterol profiles and elevated blood pressure, are also more common, although the degree to which PCOS independently raises heart attack and stroke risk is still being clarified.

Reproductive implications extend in both directions. On one side, infrequent ovulation can make conception difficult; on the other, PCOS is one of the most common — and most treatable — causes of subfertility, responding well to lifestyle change and, when needed, medications that stimulate ovulation. During pregnancy, women with PCOS face somewhat higher risks of gestational diabetes and pregnancy-induced hypertension, which is why preconception care matters. Emerging evidence also links PCOS to a higher prevalence of sleep disturbances, mood disorders such as anxiety and depression, and reduced quality of life — a reminder that the burden of the condition is not only physical. Endometrial protection is another long-term consideration: when periods are very infrequent, the



uterine lining can be exposed to estrogen without the regular shedding that menstruation provides, slightly raising the risk of endometrial overgrowth, which is why inducing a withdrawal bleed several times a year is recommended in appropriate cases.

6. Managing PCOS: What Actually Works

There is no single cure for PCOS, but the honest truth is more hopeful than the word "chronic" often sounds: nearly every feature of the condition can be substantially improved, and many women achieve regular cycles, clear skin, and successful pregnancies with appropriate care. Management is built around the individual's priorities — symptom control, metabolic health, or fertility — because the treatment that serves one goal may differ from the treatment that serves another.

For most women, the foundation is lifestyle. Even a modest, sustained weight reduction of five to ten percent of body weight can restore ovulation in a meaningful proportion of overweight women with PCOS, improve insulin sensitivity, and reduce androgen levels. Exercise, independent of weight loss, also improves metabolic markers. Combined hormonal contraceptives remain the mainstay for cycle regulation and androgen suppression in women who are not seeking pregnancy, while anti-androgen medications may be added for hirsutism and hair thinning under medical supervision. Metformin, an insulin-sensitizing drug, has an established role in selected patients, particularly those with impaired glucose tolerance or when lifestyle measures alone are insufficient. For women trying to conceive, letrozole is now generally the first-line ovulation-inducing agent, supported by strong trial evidence. Crucially, the evidence cautions against a sprawling market of unproven supplements and "PCOS cures"; women are best served by care grounded in the international guidelines.

7. Dispelling Common Myths

Misinformation around PCOS and PCOD thrives in the same confusion that this article set out to address, so a brief corrective is warranted. First: polycystic ovaries are not ovaries full of dangerous cysts — the structures seen on ultrasound are immature follicles, and they are not the type of cysts that typically rupture or require surgery. Second: PCOS is not caused by something a woman did or failed to do; while lifestyle influences its expression, the predisposition is largely genetic. Third: not every woman with PCOS is overweight; lean PCOS is well recognized, though the metabolic risks may be more easily overlooked. Fourth: PCOS does not mean a



woman cannot have children — it means conception may take longer and benefit from medical support. Finally, and most relevant to this review: PCOD is not the "mild" cousin of a "severe" PCOS. There is one condition, and its severity varies from person to person, not from acronym to acronym.

8. Conclusion

So, are PCOS and PCOD really the same? Yes — completely. The two abbreviations emerged from different eras and different regional habits of medical language, but they describe a single, well-characterized endocrine disorder: a syndrome of ovarian dysfunction, hyperandrogenism, and metabolic disturbance, diagnosed by the Rotterdam criteria and managed according to international evidence-based guidelines. PCOS is simply the term the global medical community has settled on, and the shift from "disease" to "syndrome" is itself instructive — it reflects how far understanding has come from the days when the condition was imagined as a problem of the ovaries alone.

Why does the distinction matter at all? Because language shapes care. A woman told she has "PCOD" and another told she has "PCOS" deserve to know they share the same condition, the same evidence base, and the same hopeful outlook. What matters clinically is not the acronym on the report but the individual in front of the clinician: her symptoms, her metabolic profile, her priorities, and her plans. With accurate diagnosis, lifestyle foundations, and guideline-based treatment, the great majority of women with this condition — whatever it is called — can expect to live full, healthy, and fertile lives.

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