

POLYCYSTIC OVARY SYNDROME (PCOS)

Polycystic ovary syndrome (PCOS) is a prevalent endocrine disorder affecting women of reproductive age. It is characterized by a triad of hyperandrogenism (elevated levels of circulating androgens (male sex hormones), ovulatory dysfunction (irregular or absent ovulation) and polycystic ovaries (ovaries with multiple small follicles on ultrasound).

PCOS is a leading cause of female infertility, impacting an estimated 6% to 12% (up to 5 million) of reproductive-aged women in the US, according to the CDC. The exact etiology remains unknown, and treatment approaches are primarily symptom-based and empirical. Importantly, PCOS can increase a woman's risk of developing type 2 diabetes and cardiovascular disease, necessitating long-term management considerations.

Diagnostic Workup

Detailed history: Menstrual irregularities, infertility history, current medications, past medical conditions, and family history.

Physical examination: Assess for signs of hyperandrogenism (hirsutism, acne), central obesity, and potential insulin resistance (acanthosis nigricans).

Pelvic examination: May reveal clitoromegaly or ovarian enlargement.

Laboratory investigations:

Hormone panel: To evaluate for causes of menstrual dysfunction or androgen excess.

Fasting lipid profile (cholesterol, triglycerides).
Glucose tolerance test to assess insulin sensitivity.
Pelvic ultrasound: Evaluate ovarian morphology and endometrial thickness.

Symptom management: Addressing menstrual irregularities, hirsutism, acne, and infertility. Mitigating potential metabolic complications (reducing the risk of type 2 diabetes and cardiovascular disease).

Treatment

Lifestyle modifications: Focusing on weight management and improving insulin sensitivity through diet and exercise.

Medications: Tailored based on individual needs and presenting symptoms. Options include:

Oral contraceptives: Regulate menstrual cycles and suppress androgen levels.

Progestins: Prevent endometrial hyperplasia in women who do not ovulate regularly.

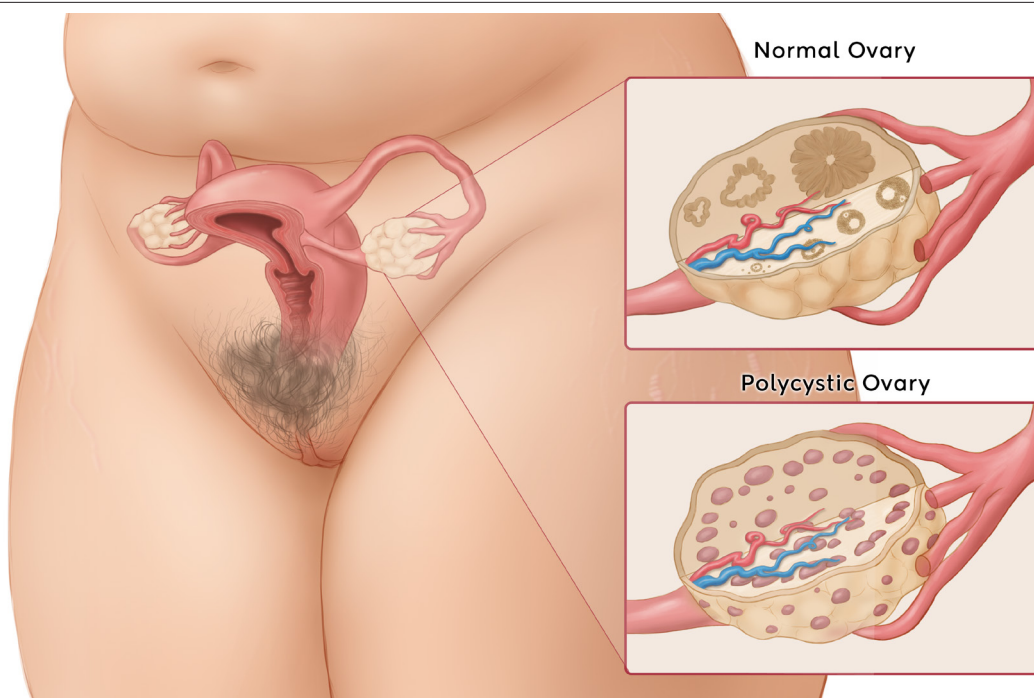
Metformin: First-line therapy for insulin resistance and improving ovulation rates.

Clomiphene or Letrozole: Ovulation induction medications for infertility.

Gonadotropins: For women with severe anovulation.

Long-term management plans should address potential metabolic sequelae of PCOS, including diabetes and cardiovascular disease.

Regular follow-up with a healthcare professional is crucial for ongoing monitoring and individualization of treatment strategies.



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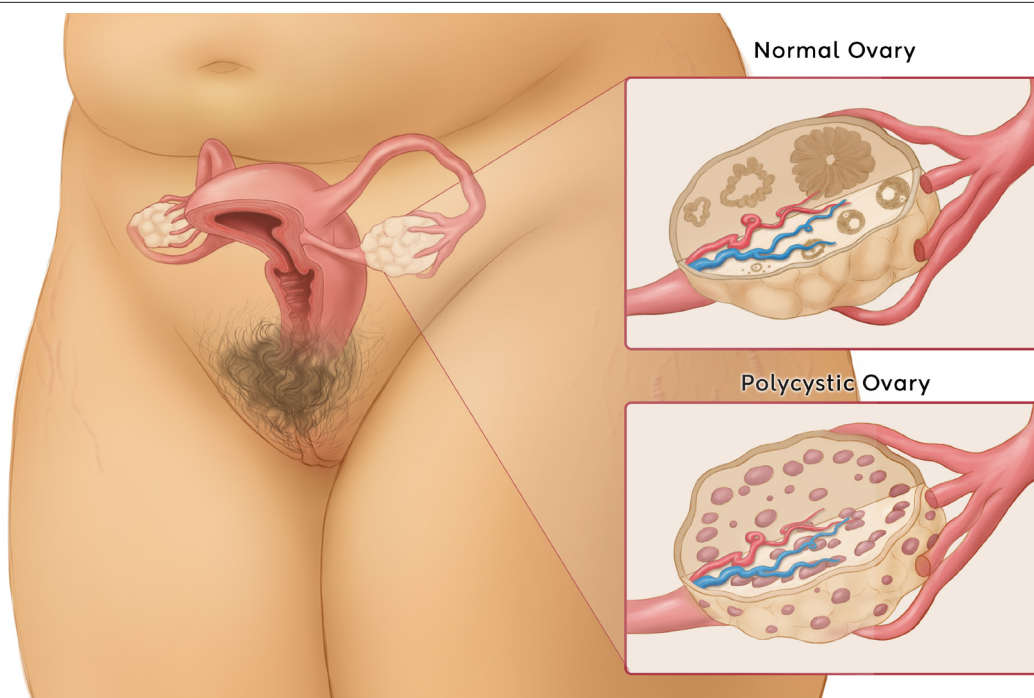
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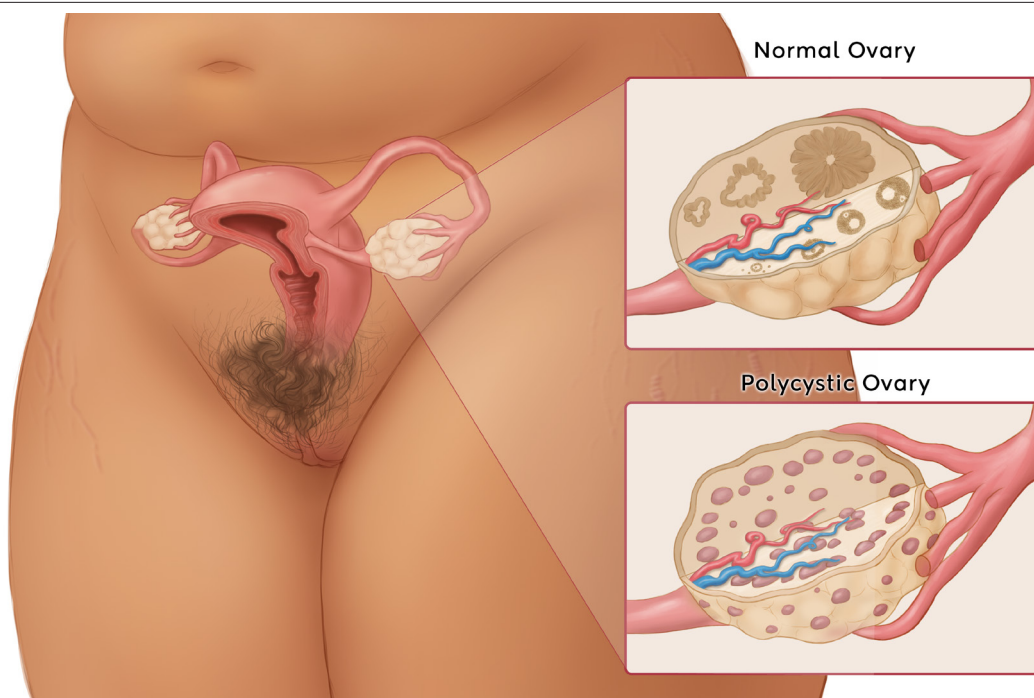
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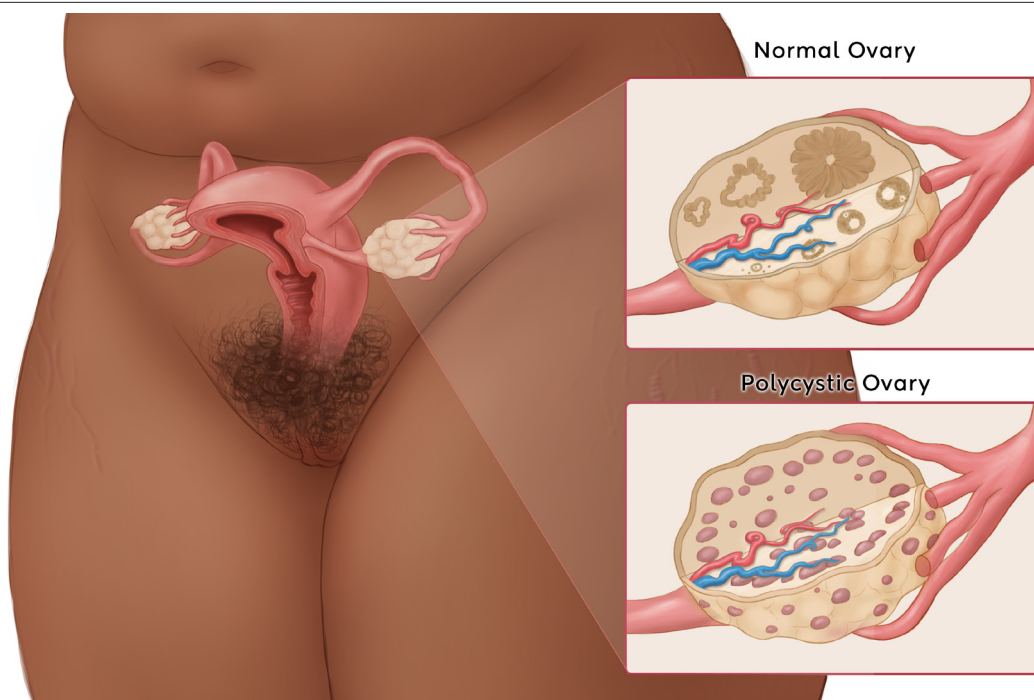
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