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PCOS is a set of symptoms related to a hormonal imbalance. Symptoms can affect metabolic, cardiovascular, inflammatory, reproductive, and other aspects of health. PCOS may cause menstrual cycle changes; skin changes such as increased facial and body hair and acne; growths in one or both ovaries, often clumps of ovarian follicles that have stopped developing; and infertility. People with PCOS may also have metabolic issues, such as insulin resistance or obesity. PCOS is a set of symptomsincluding metabolic and reproductive related to a hormonal imbalance. More >> PCOS symptoms can include menstrual irregularities, cardiovascular issues, acne, insulin resistance, and obstructive sleep apnea. More >> Research shows that genetic and environmental factors contribute to the development of PCOS; the exact cause of PCOS remains unknown. More >> Health care providers look for two or more featuresabsence of ovulation, resulting in light or skipped periods; high androgen levels; and follicle growths in one or both ovariesto diagnose PCOS. More >> Treatments for PCOS, its specific symptoms, and its associated health problems vary, but they may include lifestyle changes, medications, and ways to remove or otherwise address increased hair growth. More >> NICHD research explores causes, predictors, treatments, and other topics related to PCOS. More >> NICHD conducts and supports a variety of clinical research projects related to PCOS. More >> Find answers to other frequently asked questions related to PCOS, the conditions associated with it, and its effects on pregnancy. More >> Links to websites of groups that study and provide information about PCOS. More >>> Teede, H. J., Tay, C. T., Laven, J. J. E., Dokras, A., Moran, L. J., Pitlonen, T. T., Costello, M. F., Boivin, J., Redman, L. M., Boyle, J. A., Norman, R. 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There are currently different approaches to diagnosing PCOS, but most require two of the following features:Absence of or irregular ovulation, resulting in menstrual irregularities such as light periods or skipped periodsHigh levels of androgens that do not result from other causes or conditions, or signs of high androgens, such as increased body or facial hairGrowth of a specific size in one or both of the ovaries, often clumps of ovarian follicles that have stopped developing, as detected by ultrasoundOne diagnostic approach requires only features 1 and 2, while another looks for any two of the three for a PCOS diagnosis. The third approach requires feature 1, plus 2 or 3. Please note that current diagnostic guidelines apply to adults. There are currently no diagnostic criteria for PCOS in adolescents. Some adolescents may be deemed at risk for PCOS if they have some of its characteristic features, so the health care provider can reevaluate their symptoms and health later in life. 1, 2 Researchers are also exploring whether women with PCOS have detectable markers of the condition in childhood and the teen years, to better pinpoint diagnosis and improve care. Teede, H. J., Tay, C. T., Laven, J. J. E., Dokras, A., Moran, L. J., Pitlonen, T. T., Costello, M. F., Boivin, J., Redman, L. M., Boyle, J. A., Norman, R. J., Mousa, A., & Joham, A. E. (2023). Recommendations from the 2023 international evidence-based guideline for the assessment and management of polycystic ovary syndrome. The Journal of Clinical Endocrinology and Metabolism, 108(10), 24472469. PMID: 37580314Pal, L. (2019). Polycystic Ovary Syndrome in Adolescents [Webinar]. American Society for Reproductive Medicine Grand Rounds Webinar Series in Reproductive Endocrinology and Infertility. Retrieved on July 26, 2024, from Because the characteristic features of PCOSabsence of ovulation, indicated by irregular menstrual periods or no periods at all; high androgen levels; and growths in one or both ovaries, often clumps of ovarian follicles that have stopped developingare wide ranging, so, too, are the symptoms of the condition. Often, women and health care providers may not suspect PCOS because the symptoms may seem unrelated. These can include:1. Menstrual irregularities: No menstrual periods called amenorrheaSkipped periods called oligomenorrheaVery heavy periodsBleeding but no ovulationcalled anovulatory periodsInfertilityIncreased hair growth on the face, chest, belly, or upper thighs condition called hirsutismSevere, late-onset, or persistent acne that does not respond well to common treatmentsInsulin sensitivityObesity, weight gain, or trouble losing weight, especially around the waistOily skinPatches of thickened, dark, velvety skin condition called acanthosis nigricansFor many adolescents, these symptoms may also be part of puberty, especially early in the process. A health care provider may consider PCOS treatments for severe symptoms even without a diagnosis of PCOS.3Because many women don't consider oily skin, increased hair growth, or acne to be symptoms of a serious health condition, they may not mention these things to their health care providers. As a result, many women aren't diagnosed with PCOS until they have trouble getting pregnant, or until they have menstrual irregularities. Although PCOS is a leading cause of infertility, many women of reproductive age with PCOS can and do get pregnant. Pregnant women who have PCOS, however, are at higher risk for certain problems, such as miscarriage. Learn more about PCOS-related pregnancy problems. Women with PCOS are also at higher risk for the following health issues:Cardiovascular diseaseDepression, anxiety, and other mental health issuesEndometrial hyperplasia, a thickened, dark, velvety skin condition called acanthosis nigricans, are associated with insulin resistance. Metabolic syndrome, a group of risk factors for heart disease and type 2 diabetesAbout 25% to 45% of women with PCOS have metabolic syndrome.7ObesityObesity is a risk factor for many health problems, including diabetes, heart disease, high blood pressure, and sleep apnea. About 4 out of 5 women with PCOS also have obesity.5Obstructive sleep apnea, a disorder that causes pauses in breathing during sleepSleep apnea increases the risk of high blood pressure, heart attack, and diabetes.8Women with PCOS are at much higher risk for obstructive sleep apnea than others, including those without PCOS and those with obesity.9Type 2 diabetesIf not managed, diabetes can damage the kidneys and can lead to blindness, nerve damage, and foot problems.10 Type 2 diabetes also increases the risk for heart disease and high blood pressure. More than one-half of women with PCOS will have either type 2 diabetes or prediabetes before their early 40s.11Just because a woman is diagnosed with PCOS does not mean she will experience all these issues. However, she and her health care providers may want to monitor her health for signs of these issues as part of her regular care. American College of Obstetricians and Gynecologists. (2022) FAQs: Polycystic ovary syndrome (PCOS). Retrieved July 26, 2024, from Office on Women's Health. Polycystic ovary syndrome. Retrieved July 26, 2024, from Committee on Adolescent Health Care. (2019). Reaffirmed 2024). Committee Opinion No. 789. Screening and management of the hyperandrogenic adolescent. Retrieved July 26, 2024, from National Heart, Lung, and Blood Institute (NHLBI). The Heart Truth. Retrieved July 26, 2024, from . (2018). Practice Bulletin No. 194: Polycystic ovary syndrome. Retrieved July 26, 2024, from Goodarzi, M. O., Dumesic, D. A., Chazenbalk, G., & Azziz, R. (2011). Polycystic ovary syndrome: etiology, pathogenesis and diagnosis. Nature Reviews: Endocrinology, 7(4), 219231. PMID: 21263450Ehrmann, D. A. (2005). Polycystic ovary syndrome. The New England Journal of Medicine, 352(12), 12231232. PMID: 15789499NHLBI. (2022). What is sleep apnea? Retrieved July 26, 2024, from R. B., Naethra, A., Pillar, G., Pittman, S. D., Dunai, A., & White, D. P. (2001). 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Women with PCOS usually have at least two of the following three features:1Absence of ovulation (when the ovary releases a mature egg into the fallopian tube, usually monthly), leading to irregular menstrual periods or no periods at allHigh levels of hormones called androgens, or signs of high androgens, such as increased body or facial hairGrowth in one or both ovaries, often clumps of ovarian follicles that have stopped developing2Some women diagnosed with PCOS have the first two features, as well as symptoms of PCOS, but do not have growths in their ovaries. More recent genetic research suggests there may be two or more subtypes of PCOS defined by a set of genes or changes in specific genes.3PCOS is the most common cause of anovulatory infertility, meaning that the infertility results from the absence of ovulation. Many women don't find out that they have PCOS until they have trouble getting pregnant. 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