

NAVIGATING PCOS: INSIGHTS AND APPROACHES TO TREATMENT

WHAT IS PCOS?

Polycystic ovary syndrome (PCOS) is a multi-faceted disorder characterized by menstrual irregularities and difficulties with fertility. It's considered the most common hormonal condition affecting women of reproductive age, affecting 4-20% of women worldwide with a prevalence of 12% in the United States. ¹

SYMPTOMS

Signs and symptoms of PCOS include acne, hirsutism (hair growth in male-patterned areas, like the chin, lip, chest, back, and stomach), male-patterned hair loss, obesity, difficulty losing weight, infertility, or decreased libido.

DIAGNOSIS

Traditionally, diagnosis of PCOS is confirmed with two of the three criteria:



HYPERANDROGENISM

or excessive production or presence of androgen hormones like testosterone OR the clinical symptoms of high androgens like male-patterned hair loss and jawline cystic acne.



IRREGULAR MENSTRUAL CYCLES

are often connected to irregular ovulation.



POLYCYSTIC OVARY MORPHOLOGY

or the development of ovarian cysts. Not all women with polycystic ovary morphology have PCOS.

While the above-mentioned criteria are necessary to diagnose PCOS, there are additional clinical findings that help healthcare providers address it. Continue to the next page to read about clinical findings that may show up as symptoms or as abnormal lab work:





INSULIN RESISTANCE

When the body's cells become less responsive to the hormone insulin. ¹



INFLAMMATION

This can show up in the body as fatigue, body aches, excessive mucus production, gastrointestinal symptoms, mood changes, or skin issues. ¹



OXIDATIVE STRESS

An imbalance between harmful molecules (oxidants or free radicals) and the body's ability to neutralize them with protective substances, such as antioxidants. ⁷



CHANGES TO THE GASTROINTESTINAL MICROBIOTA

Newer research suggests that gut microbiota (the collection of microorganisms residing in the gastrointestinal tract) controls the production and release of insulin and can impact the metabolism of androgens. ⁹



ENVIRONMENTAL TOXINS

Endocrine-disrupting chemicals such as phthalates (like BPA) affect ovarian follicles and may reduce the quantity and quality of a woman's eggs available for fertilization. New findings suggest that women diagnosed with PCOS have considerably higher levels of BPA compared to women who ovulate and do not experience excessive androgen levels. ⁴

PCOS poses additional health risks such as infertility, miscarriage, and premature birth, along with other negative outcomes during pregnancy. These short-term effects can contribute to an increased risk of long-term conditions including diabetes, coronary heart disease, endometrial cancer, and other diseases.

TREATMENT APPROACHES

Lifestyle changes, such as adopting a healthy diet and engaging in regular exercise, can effectively alleviate certain symptoms of PCOS and potentially reduce long-term health risks. Continue to the next page to read about recommended lifestyle changes and pharmaceutical treatment options.

RECOMMENDED LIFESTYLE CHANGES



FIND THE RIGHT DIET

Nutrition recommendations should focus on stabilizing blood glucose, decreasing inflammation, and supporting the gut microbiota. Research suggests multiple dietary patterns may be considered for addressing PCOS. **5.6** These dietary patterns range from the Mediterranean to low-carbohydrate, and even pulse-based diets. However, these diets consist of similar characteristics. You can start here:



CONSUME WHOLE FOODS VS. PROCESSED FOODS

Processed foods are often higher in starch (crackers, cookies, cereals, bread, etc.) and can lead to blood sugar spikes. In addition, processed foods are often less nutrient-dense when compared to whole foods, increasing the risk of nutrient deficiencies.



LEAN INTO OMEGA-3S

Sources of anti-inflammatory fats include fatty fish like salmon, sardines, and mackerel, and nuts and seeds like chia seeds, walnuts, and freshly ground flaxseed.



GET FIBER AND ANTIOXIDANTS FROM PRODUCE

Eating a wide variety of plant foods, along with herbs and spices daily, can boost your antioxidant and fiber intake. This supports both the gut microbiota and the body's antioxidant reserve.



SHORT BURSTS OF MOVEMENT THROUGHOUT THE DAY

Resistance training benefits the musculoskeletal system and can increase lean muscle mass when paired with adequate protein intake. Additionally, it enhances insulin sensitivity, improves the way the body processes glucose, and reduces body fat levels. Aerobic training with increasing movement throughout the day can help manage blood sugar levels in patients with PCOS. In fact, a short and brisk 10-minute walk post-meal can improve blood glucose levels.



REDUCE YOUR EXPOSURE TO TOXINS

Industrial, household, and consumer products are the primary sources of exposure to endocrine-disrupting chemicals, or toxins. Everyday items such as plastic containers, canned food, cosmetics, clothing, furniture, toys, and other common products contain plasticizers like BPA, bisphenol F, bisphenol S, and phthalates. **4.8**

PHARMACEUTICAL TREATMENT OPTIONS:

Pharmaceutical interventions are commonly recommended to address the many factors of PCOS.

ADDRESS INSULIN SENSITIVITY WITH...

Metformin, a medication commonly recommended to treat Type 2 diabetes. It works by controlling blood sugar levels in the body.

ADDRESS HIGH ANDROGENS WITH...

Spironolactone, a medication used to reduce androgen production and address excessive hair growth symptoms associated with PCOS.

ADDRESS HORMONE DYSREGULATION WITH...

Oral Contraceptives, often recommended to help regulate the menstrual cycles in patients with PCOS.



RESOURCES

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