

# The Rising Incidence of PCOS: Its Causes and Prevention

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## Abstract

Polycystic Ovarian Syndrome (PCOS) is one of the most common endocrine disorders in reproductive-aged females worldwide. According to WHO (2025), around 6-13% of reproductive-age females are affected, with approximately 70% remaining undiagnosed. The incidence of PCOS has been increasing over the past few decades. This article explores the reasons behind this rising prevalence and discusses preventive strategies.

## Introduction

PCOS is related to the hypersecretion of androgens from the ovaries, leading to long-term complications such as infertility due to anovulation, irregular menstruation, hirsutism (male-pattern hair growth), baldness, acne, oily skin, and insulin resistance. These symptoms often contribute to depression and stress-related issues among young females. Understanding the causes of PCOS and spreading awareness about its prevention is crucial.

## Causes of Increasing Incidence of PCOS

The exact causes of PCOS remain unclear, but research suggests a strong hereditary component (approximately 70% of cases). However, genetic predisposition alone is not sufficient; environmental factors such as obesity and insulin resistance play a crucial role (National Library of Medicine, NIH 2022).

In conditions of insulin resistance, such as Type 2 Diabetes Mellitus, excess insulin stimulates theca cells in the ovaries, leading to increased androgen production (Mayo Clinic, 2022). Studies indicate that 60-70% of PCOS patients have insulin resistance (NIH, 2021).

Factors contributing to insulin resistance (Cleveland Clinic, 2024):

- Obesity: Excess body fat is a primary cause of insulin resistance.
- Physical Inactivity: Exercise enhances insulin sensitivity and helps reduce insulin levels.
- Dietary Choices: Saturated fats, high-carbohydrate, and processed foods increase insulin resistance risk.
- Certain Medications: Steroids, blood pressure medications, and HIV treatments can contribute.
- Hormonal Disorders: Conditions such as Cushing's Syndrome, Acromegaly, and Hypothyroidism are associated with insulin resistance.

## Prevention

PCOS is closely linked to insulin resistance, obesity, systemic inflammation, and metabolic syndrome. Preventive strategies (Johns Hopkins Medicine) include:

- **Dietary Modifications:** Avoid fried foods, saturated fats, and processed foods. Instead, consume omega-3 fatty acids, olive oil, beans, protein-rich legumes, green leafy vegetables, whole grains, and whole fruits. Hydration and reduced intake of sugary beverages are also important.
- **Regular Physical Activity:** Exercise daily to improve insulin sensitivity.
- **Weight Management:** Maintaining a healthy weight reduces PCOS risk.
- **Smoking Cessation:** Smoking worsens hormonal imbalances associated with PCOS.

### **Conclusion**

The increasing incidence of PCOS is primarily attributed to sedentary lifestyles, poor dietary habits, and rising obesity rates. These factors contribute to insulin resistance, which in turn elevates androgen levels and exacerbates PCOS symptoms. Additionally, the physical manifestations of PCOS, such as acne, baldness, and hirsutism, can lead to depression and stress, further impacting mental health. Awareness and lifestyle modifications are key to reducing the burden of this condition.

### **References**

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