

# PCOS & PCOD Guide





## INTRODUCTION

Polycystic ovarian disease (PCOD) or polycystic ovarian syndrome (PCOS) is a condition associated with the ovaries which usually remains under-recognized and underdiagnosed in many females. It usually occurs when a hormone called LH (from the pituitary gland) or levels of insulin (from the pancreas) are too high, which then causes the ovaries to make extra amounts of testosterone.

This condition is witnessed in every 1 in 10 women of reproductive age.

The exact cause of both is not well understood, but it may involve a combination of genetic, hormone imbalance and environmental factors.

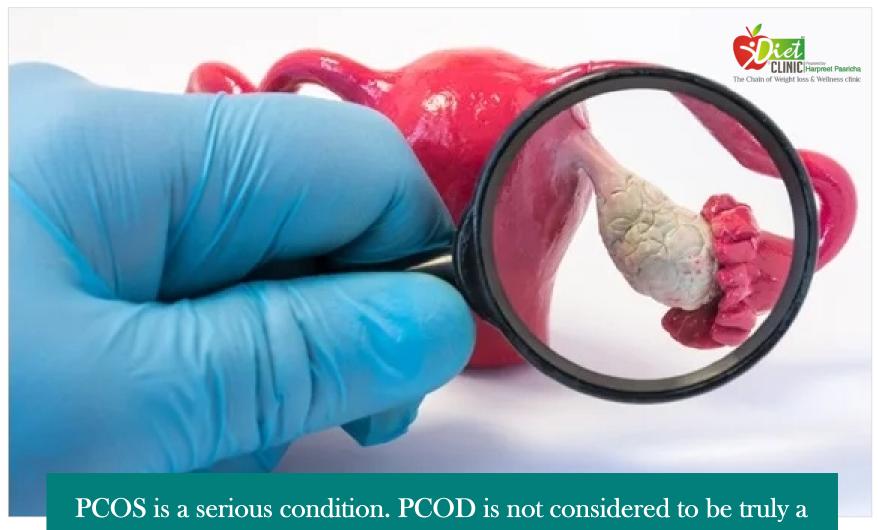
Early diagnosis and treatment along with weight loss may reduce the risk of long-term complications such as insulin sensitivity and type 2 diabetes, infertility, high blood pressure, heart related diseases, depression and also cancer.

#### What is PCOD?

PCOD is a condition characterized by hormonal imbalance. Hormonal imbalance leads to the accumulation of mature eggs in the ovaries, as they cannot be discharged. These eggs later develop into cysts, and some of these cysts can trigger the formation of additional cysts, perpetuating this cycle. Insulin insensitivity, hormonal disturbances, or stress can contribute to the development of PCOD.

#### What is PCOS?

PCOS is an endocrine system disorder that is more severe than PCOD. In this condition, the ovaries produce higher levels of androgen than normal, and this interferes with egg development and release. Some of the eggs develop into cysts, which are little sacs filled with liquid. Instead of releasing during ovulation, these cysts build up in the ovaries and may even get enlarged.



disease since with the right diet and exercise, it can be managed.

PCOS, on the other hand, is a metabolic disorder. The best treatment for PCOD and PCOS will include timely diagnosis and the appropriate steps that can help overcome the syndrome and make the journey towards conception a success.



**Androgens:** They're often called male hormones, but females have them too. Women with PCOD tend to have higher levels which can stop ovulation process and cause irregular periods, acne, thinning scalp hair, and excess hair growth on the face and body.

**Insulin:** This hormone manages your blood sugar levels. If you have PCOD, your body might not react to insulin the way it should and develop insulin sensitivity increasing their risk for type 2 diabetes.

**Progesterone:** Progesterone helps prepare body for conception and regulates the monthly menstrual cycle.

With PCOD, your body may not have enough of this hormone. You might miss your periods for a long time or have trouble predicting when they'll come.

## CLINICAL SIGNS OF PCOS

#### **Dermatological Features**

- Hirsutism unwanted hair on the face & body
- Acne
- Having excess oil production
- Skin discoloration (acanthosis nigricans)
- Loss of scalp hair or balding/alopecia, dryness & flaky scalp

#### Menstrual Disorders

- Amenorrhea complete absence of menstruation
- Oligomenorrhea menstruation delayed to 35 days or more
- Menorrhagia heavy bleeding



#### Other Health Implications

- Metabolic issues

Obesity, metabolic syndrome, insulin resistance, type 2 diabetes

- Reproductive problems

Infertility, miscarriage, preeclampsia

- Psychological effects

Anxiety, depression, stress

- Sleep disorders

Sleep apnea, insomnia

#### **MYTH**

If someone has irregular periods they have PCOS

#### **FACT**

reason like eating disorder, hormonal disturbance due to thyroid gland dysfunction, if you are a lactating mother, over exercising, emotional stress etc. One should check for other symptoms and take professional's opinion.



#### **MYTH**

One cannot conceive when they have PCOS

#### **FACT**

One can conceive even when they have irregular periods. Regulating hormones and ovulation can help in conceiving.

A positive and holistic approach towards regulating hormonal dysfunction is important.



#### MYTH

A person with PCOS should take Contraceptive pills

#### **FACT**

Use of contraceptive pills can only help curing the symptoms temporarily. One should always focus on tackling root cause with holistic approach and that's a permanent solution. It can also have possible side effects like headache, nausea, spotting, mood swings, sore and enlarged breast, blood clots and fluctuation in weight.





#### **MYTH**

PCOS is only seen in overweight and obese

#### **FACT**

You may maintain good weight and still have lean PCOD due to disturbed androgen hormones and insulin resistance. Lean PCOS is often under diagnosed, look out for other symptoms of PCOS.



## **CAUSATIVE FACTORS**

#### **Use of endocrine inhibitors / disruptors**

One of the major reasons for hormonal disturbance is use of endocrine disruptor or inhibitors like plastics bottles and containers, cosmetic, aluminium wraps or foil, insecticide, fungicide, detergents etc. These can cause cancerous tumours, birth defects and other developmental disorders.

#### **Poor dietary habits**

Junk and highly process and packaged foods leads to deposition of toxic elements and metal in your body as the foods are usually loaded with preservatives, additives, added flavours, food colours and refined carbohydrates and fats.

#### **Sedentary lifestyle**

Low activity or no activity increase all causes of mortality, double the risk of cardiovascular diseases, diabetes most importantly obesity and increase the risks of colon cancer, high blood pressure, osteoporosis, hormonal dysfunction and anxiety.



#### **Disturbed sleep cycle**

Irregular sleeping patterns and exposing on self to blue light emitting from devices have negative effects on brain function, gut health and eye sight and can further lead to hormonal disturbances.

#### **Excess alcohol intake**

It can interrupt digestive process and endocrine function. Drinking too much alcohol can cause abnormal activation of digestive enzymes produced by the pancreas. Build-up of these enzymes can lead to inflammatory damage. It also has tendency to fluctuate your blood sugar levels.

#### **Stress**

Stress can trigger many health issues and is usually associated with one of the main reasons for diabetes, cardiovascular diseases, obesity and other lifestyle diseases.



## **MANAGEMENT OF PCOS**

#### **Eat your grains whole**

Avoid refined flour and refined foods, bakery products like biscuits, pastries and white bread etc as these foods can cause spike in you blood sugar levels and can cause also gut inflammation. Include whole grains like wheat, brown rice, ragi, amaranth, buckwheat, oats.

#### Focus on low glycemic index foods

High glycemic index foods will spike blood sugar level at a faster rate. Always opt for foods which have low glycemic index and restrict high glycemic index food, sugary foods like ice cream, chocolates, biscuits or processed foods, even fresh fruit juice is not recommended.

#### **Include good quality proteins**

Make sure that you are having enough protein in each of your meals. In an average 1 -1.5 gram of protein per kg body weight is required. Include protein rich snacks like maybe a handful of nuts or sprouts. Sources: milk, curd, paneer, egg, pulses and legumes, soya, chicken, fish, amaranth and nuts.



#### **Focus on vitamin B12 food sources**

B12 is an important vitamin for weight control and many people with PCOS are deficient in this mineral. Sources: Sea food (clams, oysters, mussels), beef liver, salmon, beef, yogurt, milk, pork, eggs, chicken etc.

#### Omega 3 and Omega 6

Take adequate amount of this important nutrient Omega 3 and Omega 6 fatty acids and include good quality fats in your diet as they enhance our cell function and help in regulating hormones. Chia seeds, flaxseeds, fatty fish, sunflower seeds, pumpkin seeds, walnuts, almonds.

#### **Source it right**

Source the food from the right sources, for e.g. milk from Indian humped cows, vegetables from local farmers, country chicken instead of broilers and seasonal fruits instead of imported fruits as they do not have insecticides and pesticides.

#### **Hydrate yourself well**

An important nutrient that is always neglected. No doubt it enhances our cell function, digestion, brain function and helps in keeping up energy levels. Drink at least 2-3 litres of water per day. Avoid caffeinated & sweetened beverages.

## LIFESTYLE MODIFICATIONS

#### Eat a well-balanced diet

Your diet should include all the essential nutrients and food groups required for healthy functioning of your cells and enhance your hormone function. Eliminating food groups or taking any one food group in excess can lead to deficiency or toxicity.

#### **Address gut health**

Repairing leaky gut tissue, balancing gut bacteria, improving digestive enzymes and eliminating pathogenic bacteria are all important steps to reduce overall inflammation as inflamed body can cause ovaries to produce excess testosterone.

#### Maintain food discipline

Avoid eating food in an engaged state and avoid use of any electronic devices, books, television while consuming foods and focus on using your senses while eating food. Maintain a similar meal timing everyday day.



#### **Manage your stress**

Stress has shown relatively negative effects on not only hormone regulation but also overall health. Keep yourself engaged in activities that will help relieve your stress. Listening to music, gardening, painting, playing with children, meditation etc are few things that can help.

#### **Keeping yourself active throught the day**

Sitting is the new smoking, exercise regularly for at least for 30-45 minutes. Include any form of relaxing and strength training in your daily routine. One should also keep themselves active throughout the day especially post meals to avoid spike in blood sugar levels. But avoid high intensity exercise as it can put a stress on adrenals.

#### **Expose yourself to sunlight**

Vitamin D is very important for regulating hormones & also for better endocrine function. Sun bathing in the morning with light cotton clothes for 15-20 minutes is recommended.

#### **Prioritise sleep**

Sleep is very important for our body to recuperate.

Recommended hours of sleep: 7-8 hours daily. Avoid keeping up late as our body undergoes detoxification process and eliminates toxins naturally. Maintain the same sleep timings every day.



## PREVENTION AND CARE

- 1) Maintaining an ideal body weight is important, as one of the core reasons for insulin insensitivity and hormonal disturbance or dysfunction.
- 2) Maintain food discipline by following same meal timing, keep a straight posture and use all your senses while eating & avoid use of any gadgets or reading books.
- 3) Small and frequent meals is a good practice to keep. Also make sure to chew foods well and take small bites as this aid in faster digestion.
- 4) Avoid using plastics, aluminium, non-stick pans or tawas. Replace it with iron pan, steel containers, glass and ceramic.
- 5) Avoid refrigerated, stored foods: Go for fresh, natural foods. Avoid overcooking, overheating, microwaving foods.
- 6) Avoid highly processed foods rich in sugar, salt and fat like bakery products, sausages, salami, pickles, jams, papads, mithais, chewdas, ketchups, sauces also foods which have margarine or vanaspati etc.



- 7) Avoid aerated and frizzy drinks, fruits juices and limit your alcohol intake. Also avoid cold deserts like ice-cream and thandais.
- 8) Aerobic exercise of 20-30 minutes is 3-4 times a week is recommended. Activity post meals will ensure less spike in blood sugar levels.
- 9) Vitamin D deficiency can be a causative factor for hormone imbalance, insulin resistance, exposure to sunlight for 15-20 minutes on daily basis to take care for vitamin d levels and also adds up to other benefits.
- 10) A good quality sleep will ensure that the hormones and produced and regulated better, make sure to get good sleep of 7-8 hours.
- 11) Manage your stress, enjoy good music, meditate, practice gratitude, Keep yourself engaged and have a positive attitude towards life. Make lifestyle and behavioural changes for better health.
- 12) Keep a track of your periods and check for other PCOS symptoms as well.





A positive approach can cure many lifestyle diseases. PCOS could be caused due to various factors as it still been studied but one should always consider holistic approach as lifestyle diseases can only be cured when you change your behaviour, lifestyle and maintain good health. Focus on eating right, keeping stress at bay, keeping yourself active throughout the day to release endorphins & feel good hormones, get enough sleep & practice gratitude.

# CREDITS



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