

# Polytechnic Overeat Sintrems and Disease

Sahilsingh Ravindrasingh Pardeshi<sup>1</sup>, Bhushan Shashikant Bhale<sup>2</sup>

Gawande College of Pharmacy Sakharkherda, Sant Gadge Baba Amravati University

**Abstract:** Polycystic ovary syndrome (PCOS) is of clinical and public health importance as it is very common, affecting up to one in five women of reproductive age. It has significant and diverse clinical implications including reproductive (infertility, hyperandrogenism, hirsutism), metabolic (insulin resistance, impaired glucose tolerance, type 2 diabetes mellitus, adverse cardiovascular risk profiles) and psychological features (increased anxiety, depression and worsened quality of life). Polycystic ovary syndrome is a heterogeneous condition and, as such, clinical and research agendas are broad and involve many disciplines. The phenotype varies widely depending on life stage, genotype, ethnicity and environmental factors including lifestyle and bodyweight. Importantly, PCOS has unique interactions with the ever - increasing obesity prevalence worldwide as obesity - induced insulin resistance significantly exacerbates all the features of PCOS. Furthermore, it has clinical implications across the lifespan and is relevant to related family members with an increased risk for metabolic conditions reported in first - degree relatives. Therapy should focus on both the short and long - term reproductive, metabolic and psychological features. Given the aetiological role of insulin resistance and the impact of obesity on both hyperinsulinaemia and hyperandrogenism, multidisciplinary lifestyle improvement aimed at normalizing insulin resistance, improving androgen status and aiding weight management is recognised as a crucial initial treatment strategy. Modest weight loss of 5% to 10% of initial body weight has been demonstrated to improve many of the features of PCOS. Management should focus on support, education, addressing psychological factors and strongly emphasising healthy lifestyle with targeted medical therapy as required. Monitoring and management of longterm metabolic complications is also an important part of routine clinical care. Comprehensive evidence - based guidelines are needed to aid early diagnosis, appropriate investigation, regular screening and treatment of this common condition. Whilst reproductive features of PCOS are well recognised and are covered here, this review focuses primarily on the less appreciated cardiometabolic and psychological features of PCOS.

**Keywords:** Polycystic ovary syndrome (PCOS), obesity-induced insulin resistance, hormonal disorder in women, Excess androgen, hormonal imbalance, androgen, Pelvic exam, Progestin therapy, Reproductive implications

## 1. Introduction

Polycystic ovary syndrome (PCOS) is a condition in which the ovaries produce an abnormal amount of androgens, male sex hormones that are usually present in women in small amounts. The name polycystic ovary syndrome describes the numerous small cysts (fluid - filled sacs) that form in the ovaries. However, some women with this disorder do not have cysts, while some women without the disorder do develop cysts.

Ovulation occurs when a mature egg is released from an ovary. This happens so it can be fertilized by a male sperm. If the egg is not fertilized, it is sent out of the body during your period.

In some cases, a woman doesn't make enough of the hormones needed to ovulate. When ovulation doesn't happen, the ovaries can develop many small cysts. These cysts make hormones called androgens. Women with PCOS often have high levels of androgens. This can cause more problems with a woman's menstrual cycle. And it can cause many of the symptoms of PCOS. Treatment for PCOS is often done with medication. This can't cure PCOS, but it helps reduce symptoms and prevent some health problems.

It is a prevalent hormonal disorder in women, yet it is one of the most under diagnosed diseases.

It adversely affects women at varying life stages, but unfortunately, half of the women with PCOS are unaware and ignorant about it. As it is a complex and multifaceted condition, it impacts women's health and well - being in a multitude of ways. Therefore, it is imperative to create awareness and emphasize prevention strategies.

Considering the steep rise in PCOS in women between the ages of 12 to 45, Tech Mahindra Foundation took the initiative to create awareness about PCOS through a webinar. The objective of this webinar was to educate everyone, especially girls, women and paramedics, about the symptoms, diagnosis, prevention, and treatment of Polycystic Ovarian Disease. PCOS affects a woman's hormones, and this hormonal imbalance causes a woman's body to skip menstrual periods resulting in excessive hair growth and androgen levels. This condition also makes it harder for women to conceive. The delay in diagnosis of PCOS can lead to the progression of comorbidities. So, being aware of the causes and symptoms of PCOS can help a woman get early treatment and prevent further health complications, such as obesity, diabetes, heart disease, infertility, etc.

PCOD (Polycystic Ovarian Disease) is a medical condition in women, where the ovaries produce multiple immature eggs which, over time, become cysts on the ovaries.

Ovaries are the reproductive organs of a female which control the menstrual cycle and the production of hormones like estrogen, progesterone, inhibin, relaxin etc. The accumulation of the eggs swells the ovary and makes it release large quantities of male hormone thus causing infertility.

PCOD is a hormonal condition that affects approximately 5 - 10% of women in their childbearing ages (12 to 45 - years). While the prevalence of PCOD differs, it affects around 9% to 22% of Indian women. The numbers are about 2% to 7% in China and Sri Lanka.

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In this condition, the hormones of a woman go out of balance which creates various symptoms, including the absence of ovulation, irregular menstrual cycle, difficulty conceiving, weight gain, acne, and hirsutism. PCOD, also

known as PCOS (Polycystic Ovarian Syndrome), if left untreated, can lead to further health complications, like diabetes, obesity, heart diseases, and high cholesterol.

**What is the difference between PCOD and PCOS?**

PCOD	PCOS
A condition where smaller cysts, less in number grow on ovaries, which may recede in three months with lifestyle changes.	A metabolic disorder wherein many cysts grow on both the ovaries, leading to ovaries stop releasing eggs.
A common disorder found in almost 10% of the women population across the world.	A serious condition which can be diagnosed in about 0.2 to 2.5% of the total women population of the world.
Infertility issues can be cured with some changes in lifestyle and medications.	Infertility issues are a bit more serious and even though pregnancy happens, risks of miscarriage and complications are high.
No serious complications on health.	Can lead to serious diseases like diabetes, heart disease, cancer, high blood pressure etc.
Periods can be regular or delayed.	Periods are always delayed or stopped.

**2. Causes**

The exact cause of PCOS isn't known. Factors that might play a role include:

**Insulin resistance**

Insulin is a hormone that the pancreas makes. It allows cells to use sugar, your body's primary energy supply. If cells become resistant to the action of insulin, then blood sugar levels can go up. This can cause your body to make more insulin to try to bring down the blood sugar level.

Too much insulin might cause your body to make too much of the male hormone androgen. You could have trouble with ovulation, the process where eggs are released from the ovary.

One sign of insulin resistance is dark, velvety patches of skin on the lower part of the neck, armpits, groin or under the breasts. A bigger appetite and weight gain may be other signs.

**Low - grade inflammation**

White blood cells make substances in response to infection or injury. This response is called low grade inflammation. Research shows that people with PCOS have a type of long - term, low - grade inflammation that leads polycystic ovaries to produce androgens. This can lead to heart and blood vessel problems.

**Heredity**

Research suggests that certain genes might be linked to PCOS. Having a family history of PCOS may play a role in developing the condition.

**Excess androgen**

With PCOS, the ovaries may produce high levels of androgen. Having too much androgen interferes with ovulation. This means that eggs don't develop on a regular basis and aren't released from the follicles where they

develop. Excess androgen also can result in hirsutism and acne.

Causes of PCOD include:

**Family History**

There is a 50% possibility of getting PCOD among the women whose immediate female relatives suffer from PCOD. As you grow older, this PCOD may lead to Type 2 diabetes, as PCOD is a risk factor for developing Diabetes till now, a single gene has not yet found to be the cause of PCOD, and it is likely to be complex and involve multiple genes.

**Insulin resistance & Lifestyle**

About 70% women with PCOD have peripheral insulin resistance. The pancreas produces insulin, which is a hormone to help the body use sugar from foods for energy. Due to insulin resistance the cells can't use insulin properly and the body's demand for insulin increases. To compensate, the pancreas makes more insulin.

**Factors of Insulin Resistance:**

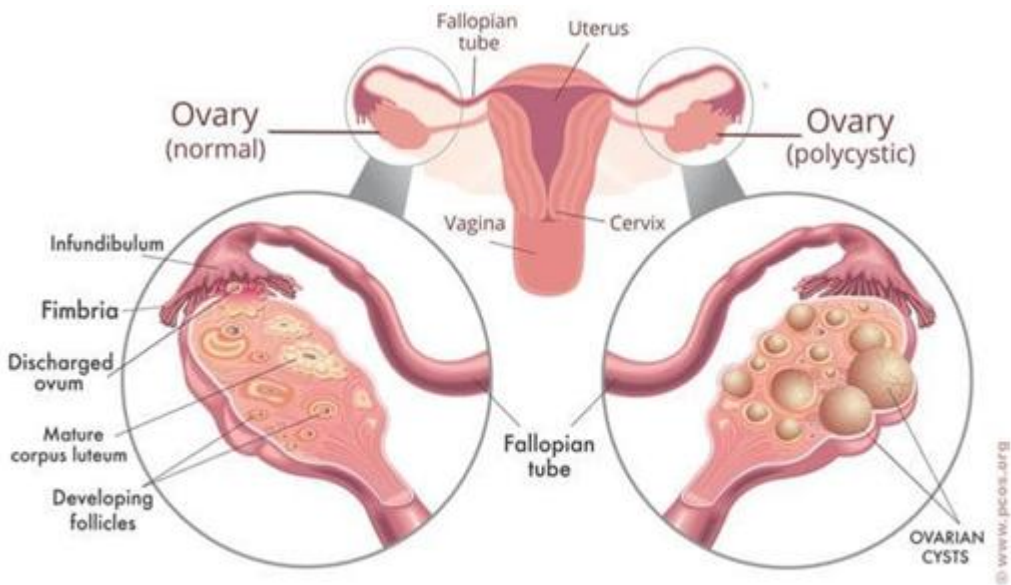
- Insulin resistance as a result of genetic factors
- Insulin resistance as a result of being overweight (related to diet and inactivity)
- A combination of both of these factors

**Inflammation**

PCOS can lead to increased levels of inflammation in women. And being overweight also can contribute to inflammation. Studies have shown in PCOD that excess inflammation is linked to higher androgen levels.

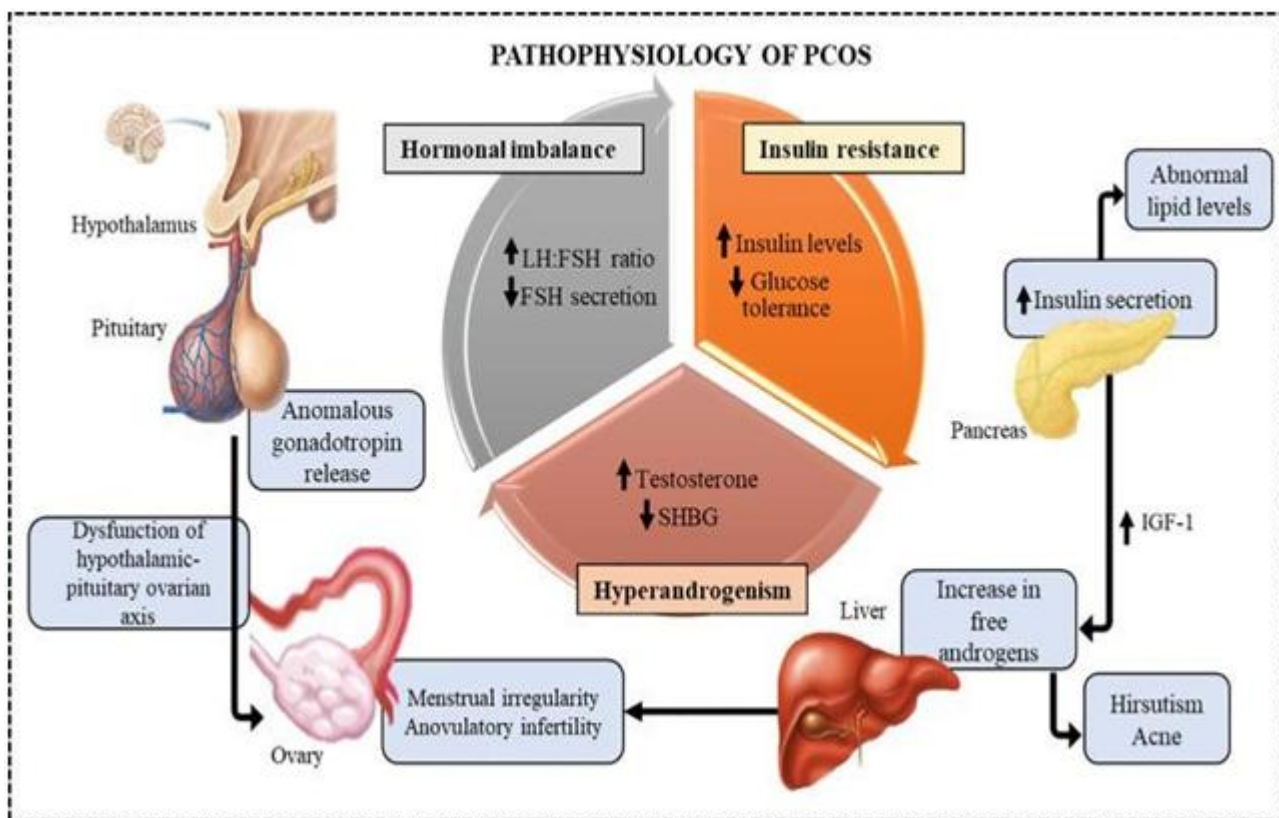
**Weight**

Sometimes, a higher weight may worsen insulin resistance and the symptoms of polycystic ovarian syndrome. Some women with PCOD report that they had never experienced symptoms such as menstrual irregularity or excessive hair growth and are a healthy weight. However, these symptoms only appear once they gain weight.



**Difference between normal and polycystic ovary**

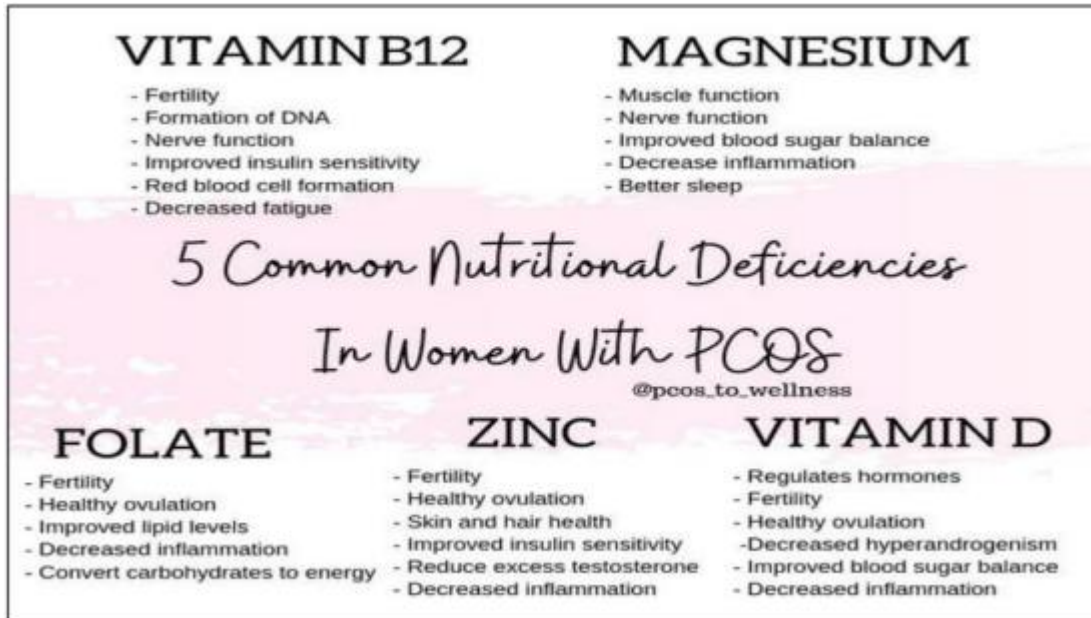
**3. Pathophysiology:**



**4. Deficiency Factor**

Polycystic ovarian syndrome (PCOS) is a **hormonal imbalance** caused by the ovaries (the organ that produces

and releases eggs) creating excess male hormones. If you have PCOS, your ovaries produce unusually high levels of hormones called androgens. This causes your reproductive hormones to become imbalanced.



Low levels of **sex produce milk in pregnancy. hormone - binding globulin (SHBG)** – a protein in the blood that binds to testosterone and reduces its effect. raised levels of prolactin (only in some women with PCOS) – a hormone that stimulates the breast glands to produce milk in pregnancy.

PCOS women manifest a relatively high prevalence of vitamin D deficiency than healthy women, and vitamin D deficiency is associated with ovulatory dysfunction, IR and hyperandrogenism.

## 5. Signs and Symptoms

The symptoms of PCOS may include:

- Missed periods, irregular periods, or very light periods
- Ovaries that are large or have many cysts
- Excess body hair, including the chest, stomach, and back (hirsutism)
- Weight gain, especially around the belly (abdomen)
- Acne or oily skin
- Male - pattern baldness or thinning hair
- Infertility
- Small pieces of excess skin on the neck or armpits (skin tags)
- Dark or thick skin patches on the back of the neck, in the armpits, and under the breasts.

## Common Symptoms of PCOD/PCOS:

The preliminary signs and symptoms of PCOD usually develop during the first cycle of menstruation at puberty. PCOD may also develop later due to increased weight over the years.

There are various symptoms of PCOD. Some of the common signs are

- Increased androgen levels. Excess male sex hormones may result in various physical manifestations, such as excess facial and body hair and male - pattern baldness.
- Irregular periods. You may observe irregular periods or delayed menstrual cycle due to the abnormality in maturation of the egg.
- Difficulty in getting pregnant due to irregular and delayed or failed ovulation. The hormone imbalance in the body prevent the follicles from maturing and releasing the egg, causing delayed or failed ovulation. This heavily affects the menstrual cycle and thereby your periods. Many women are diagnosed with PCOD when they visit the doctor regarding their unsuccessful attempts at getting pregnant.
- Hair loss or excessive thinning of hair. This symptom, too, is due to the increased production of male hormones in the body.
- Acne on the skin
- Weight gain





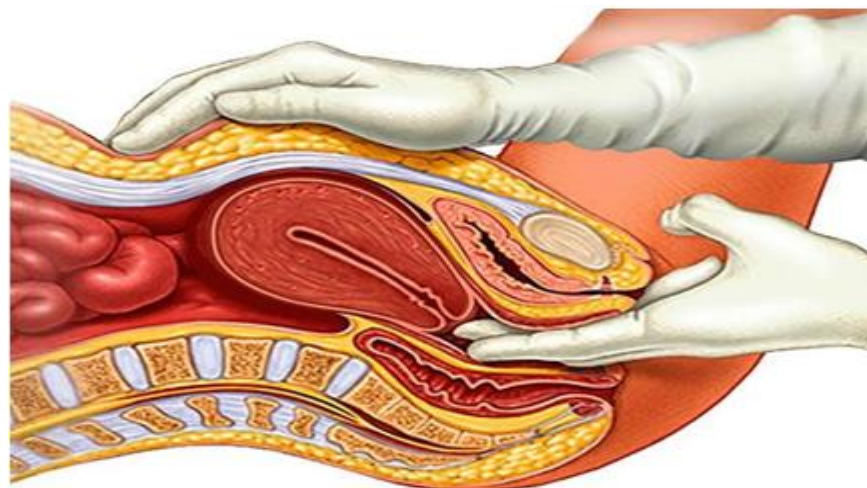
## 6. Diagnosis

There's no single test to specifically diagnose polycystic ovary syndrome (PCOS). Your health care provider is likely to start with a discussion of your symptoms, medications and any other medical conditions. Your provider also may ask about your menstrual periods and any weight changes. A

physical exam includes checking for signs of excess hair growth, insulin resistance and acne.

Your health care provider might then recommend:

- **Pelvic exam.** During a pelvic exam, your provider can check your reproductive organs for masses, growths or other changes.



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- **Blood tests.** Blood tests can measure hormone levels. This testing can exclude possible causes of menstrual problems or androgen excess that mimic PCOS. You might have other blood testing, such as fasting cholesterol and triglyceride levels. A glucose tolerance test can measure your body's response to sugar (glucose).
- **Ultrasound.** An ultrasound can check the appearance of your ovaries and the thickness of the lining of your uterus. A wand like device (transducer) is placed in your vagina. The transducer emits sound waves that are translated into images on a computer screen.



If you have a diagnosis of PCOS, your provider might recommend more tests for complications. These tests can include:

- Regular checks of blood pressure, glucose tolerance, and cholesterol and triglyceride levels
- Screening for depression and anxiety
- Screening for obstructive sleep apnea

## 7. Complications

Some complications can arise from PCOD. These include various diseases and medical conditions, such as

- Various metabolic syndromes, including high blood pressure, cardiovascular diseases, increased cholesterol and blood glucose levels.
- Miscarriages
- Infertility
- Gestational diabetes
- Sleep apnea
- Type 2 Diabetes
- Depression and other mental disorders
- Endometrial cancer
- Abnormal uterine bleeding
- Untreatable acne, displaying hormonal problems
- Chronic Liver inflammation

Studies also report that by the age of forty, approximately fifty per cent of women with PCOD would develop pre-diabetes or would already be diabetic, while many others would face infertility during their childbearing age.

Women with PCOS are more likely to develop certain serious health problems. These include type 2 diabetes, high blood pressure, problems with the heart and blood vessels, and uterine cancer. Women with PCOS often have problems with their ability to get pregnant (fertility).

## 8. Pharmacological Treatment

Post-consultation, your doctor would recommend various medications to rectify your menstrual cycle. He may prescribe drugs such as

- Combinatorial birth control pill. These pills contain progestin and estrogen that reduce the production of the male sex hormones and regulate your hormones that let follicles release the egg, form acne and excess hair growth.
- Progestin therapy. Your doctor would advise you to take progestin for ten to fourteen days every month or two to regulate and correct your menstrual cycle in this medication.
- Immature follicles treatment. Your doctor may also recommend immature follicle aspiration PCOS treatment to improve your endocrinology and decrease the number of follicles in the ovary, thus facilitating pregnancy.
- Your doctor would prescribe drugs such as clomiphene, letrozole, metformin, and gonadotrophins to improve ovulation. □To help reduce increase hair growth, your doctor would prescribe various birth control pills, spironolactone, and eflornithine.
- Although surgery is not the immediate options of choice, your doctor, in severe cases, may perform laparoscopic ovarian drilling, which would help trigger ovulation that is the release of the egg from the ovaries.

Monophasic oral contraceptive pill contains estrogen and progestogen.



Clomiphene is used to induce ovulation (egg production) in women who do not produce ova (eggs) but wish to become pregnant (infertility). Clomiphene is in a class of medications called ovulatory stimulants. It works similarly to estrogen, a female hormone that causes eggs to develop in the ovaries and be released.



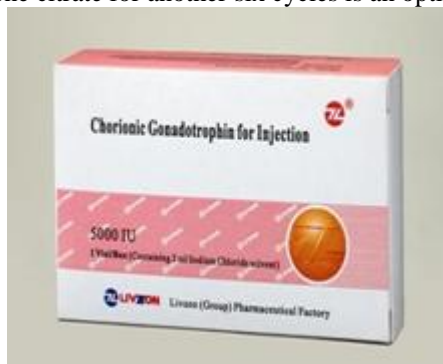
It inhibits estrogen production by repressing the enzyme **aromatase**. It has been reported that letrozole can inhibit estrogen levels by at least 97% to 99%. The other studies also reported that letrozole is effective in clomiphene - resistant patients, and also resulted in ovulation of 62% cases, and pregnancy of 14.7%.



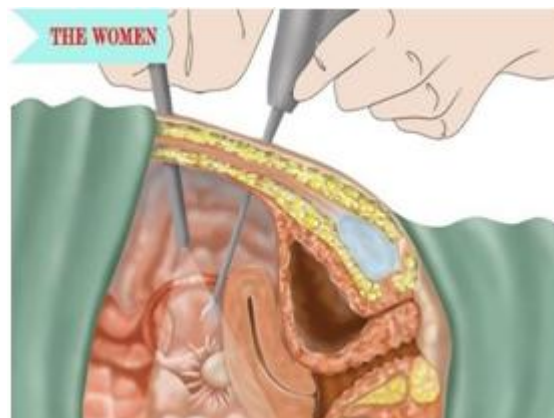
Several effects have been reported as related to metformin in PCOS patients including **restoring ovulation, reducing weight, reducing circulating androgen levels, reducing the risk of miscarriage and reducing the risk of gestational diabetes mellitus (GDM)**.



**Gonadotrophins are the standard drugs in medical ovulation induction for women with PCOS, who did not ovulate or conceive on clomiphene citrate.** In women who do ovulate on clomiphene citrate, continued clomiphene citrate for another six cycles is an option.



Laparoscopic ovarian drilling is a **surgical treatment for polycystic ovary syndrome (PCOS) that can help with ovulation**. Electrocautery or a laser is used to destroy parts of the ovaries. This surgery is not commonly used.



## 9. Non Pharmacological Treatment

### Foods to consume in PCOD and PCOS

According to research, what people eat has a big impact on PCOD.

There is considerable agreement on which foods are good and appear to assist people in managing their disease and which foods should be avoided.

Three diets that may help PCOS patients manage their symptoms are listed below:

- **A diet with a low glycemic index (GI):** Meals with a low GI are digested more slowly by the body, which means they do not cause insulin levels to rise as much or as quickly as foods with a higher GI, such as some carbs. A low GI diet includes whole grains, legumes, nuts, seeds, fruits, non - starchy vegetables, and other unprocessed, low carbohydrate foods.
- **Anti - inflammatory foods:** This includes berries, fatty salmon, leafy greens, and extra virgin olive oil, which may help to alleviate inflammation - related symptoms.
- **The DASH diet:** To lower the risk or impact of heart disease, doctors frequently recommend the Dietary Approaches to Stop Hypertension (DASH) diet. It may also help with treating the PCOS symptoms.

The food items that must be included in PCOD are:

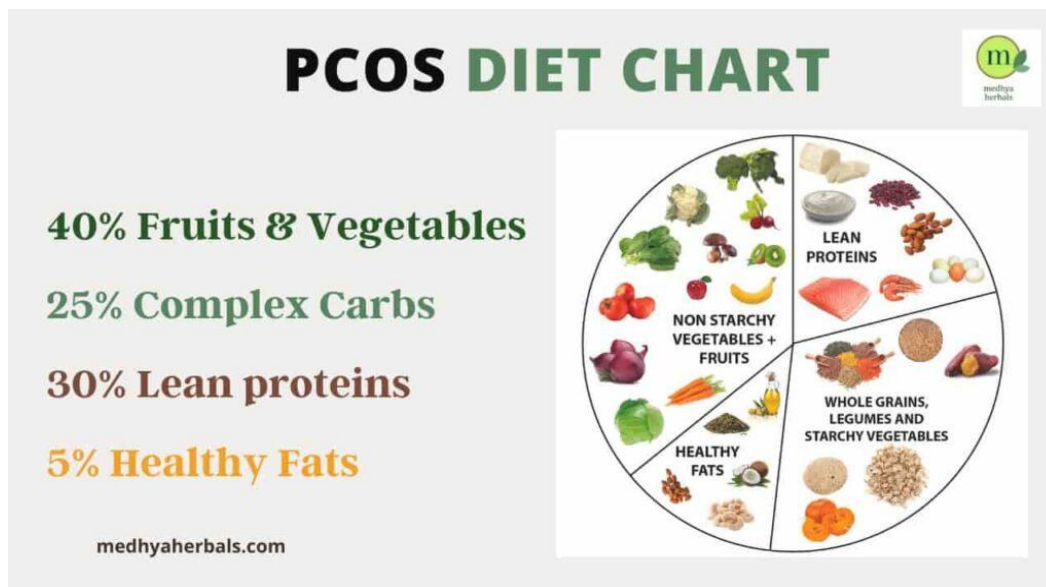
- Foods that are unrefined and natural
- Fishes with high Omega fatty acids, such as salmon, tuna, sardines, and mackerel
- Leafy vegetables such as kale, spinach, broccoli
- Dark red fruit like crimson grapes, blueberries, blackberries, and cherries
- Healthy fats like olive oil, avocados, and coconuts and nuts, such as pine nuts, walnuts, almonds, and pistachios
- Spices, such as turmeric and cinnamon
- Dark chocolate in moderation



**Avoid these foods to get rid of PCOD and PCOS**

Patients with PCOD should avoid items that are already regarded as unhealthy in general. Here are a few examples:

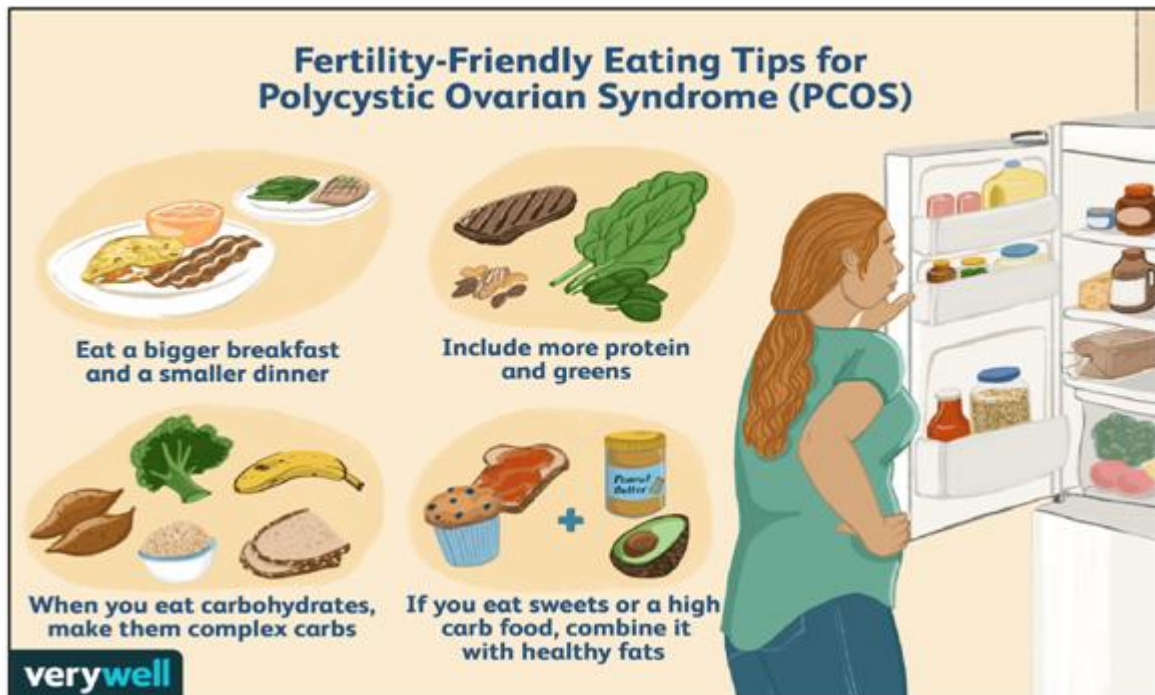
- Refined carbohydrate sources include cakes, pastries and white bread.
- Fried food and fast food such as pizza and burgers
- Carbonated beverages, such as sodas and energy drinks. They are high in sugar.
- Processed meats, such as salami, sausages, and hot dogs, cured ham and bacon, along with luncheon meat.
- Margarine, shortening, and lard
- Red meat like steaks, pork and hamburgers



**Diet chart for PCOD patients**

	Breakfast	Mid - meal	Lunch	Evening	Dinner
Sunday	2 Idlis with Sambar 1/2 cup and Green chutney or Tomato Chutney	1 cup green gram sprouts	2 Rotis, 1/2 cup salad with Fish curry (100 gm fish) and 1/2 cup cabbage subji.	A portion of fruit but avoid high sugar fruits like banana, Jack fruit, Mango, Chikku	2 Roti / chapati. + Tomato subji 1/2 cup.
Monday	2 Slices brown bread. +1 slice low - fat cheese+2 Boiled egg whites.	A portion of fruit but avoid high sugar fruits like banana, Jack fruit, Mango, Chikku.)	Veg pulao rice 1 cup+ 1/2 cup Soya Chunk curry+ 1/2 cup Butter Milk.	1) Cup light tea+ 2) Wheat rusks	2 roti/ Chapati+ Ladies finger subji 1/2 cup.
Tuesday	Chapati 2 + 1/2 cup green peas curry.	1/2 cup boiled black chana	1 cup rice+ 1/2 cup Dhal+ Palak subji 1/2 cup+ 1/2 cup low - fat curd.	A portion of fruit but avoid high sugar fruits like banana, Jack fruit, Mango, Chikku	Broken wheat upma 1 cup+ 1/2 cup green beans subji
Wednesday	Methi Parata 2+ 1 tbsp green chutney.	A portion of fruit but avoid high sugar fruits like banana, Jack fruit, Mango, Chikku.	1 cup rice+ chicken curry (150 gm chicken) + 1 cup cucumber salad.	1 cup light tea+ Brown rice flakes poha 1/2 cup.	Wheat Dosa 2 + 1/2 cup Bitter guard subji.
Thursday	Vegetable Oats Upma 1 cup+ 1/2 cup low - fat milk.	Plain Yoghurt and raw vegetables or 1 cup grilled vegetables	1/2 cup rice + 2 medium chappatis+1/2 cup Kidney beans curry+ Snake gourd subji 1/2 cup	1 cup boiled chana+1 cup light tea.	2 Roti/ chapati+ 1/2 cup mixed veg curry
Friday	Mixed veg Poha 1 cup+ 1/2 cup low fat milk	A portion of fruit but avoid high sugar fruits like banana, jack fruit, Mango, Chikku	2 Chapati + 1/2 cup cluster beans subji+ Fish curry (100 g fish) 1/2 cup	1 cup tea+ 2 biscuits (Digestive or oatmeal)	2 Roti/ chapati+ Ridge gourd sabji 1/2cup
Saturday	2 Uthappam+ 1 tbsp green chutney.	1 cup boiled chana	1 cup rice+ soya chunk curry 1/2 cup+ Ladies finger sabji 1/2 cup+ 1/2 cup low - fat curd.	A portion of fruit but avoid high sugar fruits like banana, Jack fruit, Mango, Chikku	Broken wheat upma 1 cup+ 1/2 cup green beans subji





Along with following this diet chart, the patient must remember the following:

- Increase the diet of high - fiber carbohydrates gradually, Food high in lean protein should be prioritized.
- Include foods high in monounsaturated and omega - 3 fatty acids. Include lots of low glycemic index fruits and vegetables in the diet. Drink at least 2 litres of water.
- Exercise regularly
- Meals should not be skipped.
- Consume less amount of food in each meal.

#### Lifestyle change aiding in PCOD and PCOS

People with PCOD can also benefit from a change in their lifestyle. According to studies, combining a PCOD diet with physical exercise can result in the following advantages:

- Slimming down
- Increased insulin sensitivity
- More consistent periods
- Male hormone levels are lower
- Low cholesterol level

Women can use behavioral measures to assist them to reach their weight - loss goals, which will help them manage their PCOS symptoms. These are some of the practices:

- Social support networks for goal - setting
- Strategies for self - monitoring
- Taking care of one's mental health

Self - care habits like getting enough sleep, avoiding over - commitment, and setting aside time to unwind can also help with PCOD management.

#### When to seek medical attention?

Even though the diet is being followed, the patient might want to see a doctor if there is presence of following symptoms:

- Acne
- Excessive hair growth

- Weight gain, particularly around the stomach
- Oily skin
- Irregular periods
- Discomfort in the pelvic area
- Having trouble getting pregnant

Many people put off getting medical help until they are having trouble conceiving.

Anyone experiencing these symptoms should consult a Gynecologist about their concerns; the sooner they can begin therapy, the faster they will feel better.

The patient may become frustrated if they dealing with PCOD or any of its symptoms. Taking proactive measures to improve health can help them feel better and lessen the symptoms.

Making a good food/bad food list and sticking to it is one of the greatest methods to do this.

Almost every food that can make the illness worse has a healthier, more beneficial equivalent. For example, you can switch to high - fiber whole grain bread with olive oil or avocado if you are used to margarine and white toast for breakfast.

#### Ayurvedic Treatment:

Ayurvedic treatment for PCOS usually includes a combination of herbs, therapies, and lifestyle changes, such as diet.

#### Ayurvedic use of herbs for PCOS

Although Ayurvedic treatment of PCOS may vary among practitioners, it often involves the use of specific herbs, primarily to maintain a balance of hormones. These include:

- **Ashwagandha:** Ashwagandha is an herb that's also called Indian ginseng or winter cherry. It can help balance cortisol levels to improve stress and PCOS

symptoms, according to a 2016 study Trusted Source of 52 people under chronic stress.

- **Cinnamon:** Cinnamon, harvested from the bark of the cinnamon tree, is more than just a spice used in baked goods: According to a small 2007 study, it can positively affect insulin resistance parameters in PCOS. A 2014 study Trusted Source of 45 women indicated that cinnamon may play a role in regulating menstrual cycles for women with PCOS.
- **Turmeric:** Turmeric gets its yellow color from its active ingredient, curcumin. In a 2017 study Trusted Source on PCOS - induced rats, curcumin showed promise as an anti-inflammatory agent and as a way to decrease insulin resistance.

**Ayurvedic therapies for PCOS**

A 2012 study Trusted Source indicated that a 12 - week yoga program helped reduce anxiety symptoms in adolescent girls with PCOS.

An Ayurvedic practitioner may recommend yoga poses, also called asanas, such as:

- Reclining Butterfly Pose (Supta Baddha Konasana)
- Bharadvaja’s Twist (Bharadvajasana)
- Mill Churning Pose (Chakki Chalanasana)
- Corpse Pose (Shavasana)

Your practitioner may also recommend meditation and breathing exercises, known as pranayamas, to help relieve stress.

**Ayurvedic diet for PCOS**

The dietary practices an Ayurvedic practitioner recommends for PCOS will often be similar to what your primary care doctor might suggest, including:

- Eating fewer saturated fats (like red meat and deep fried foods)
- Reducing your salt intake
- Eating more fruits, vegetables, and whole grains
- Avoiding refined sugar, sugary foods, and artificial sweeteners

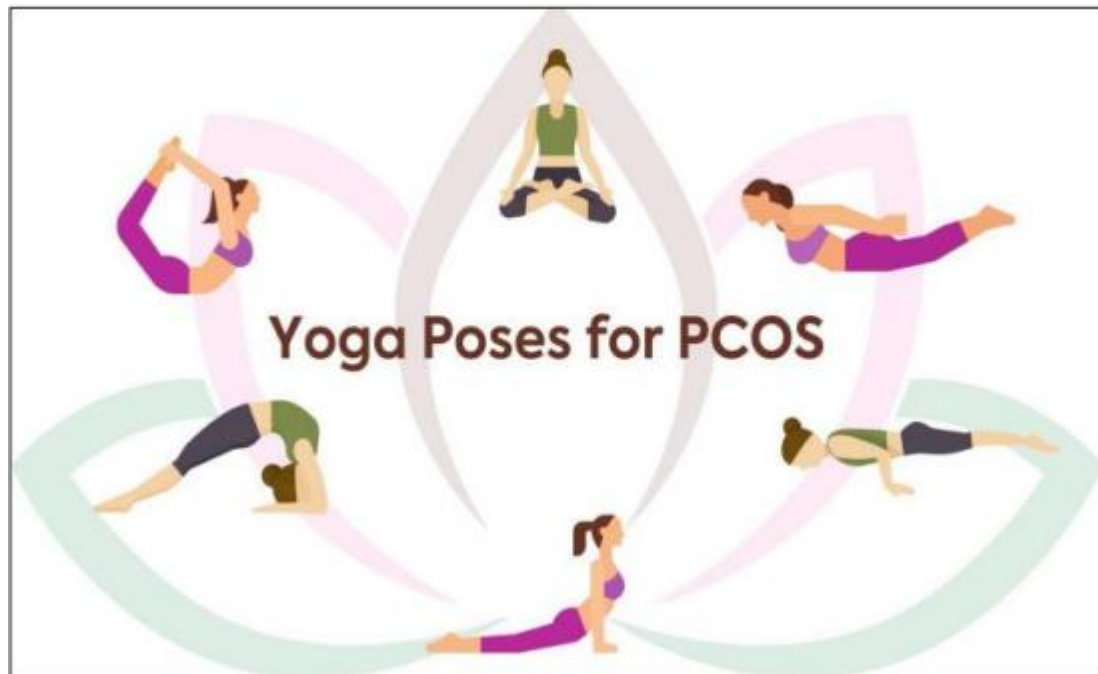


**Ayurvedic Medication**

NamyaaAarthavaKshaya - for PCOD and PCOS’ makes for this completely Ayurvedic tablet which is to help treat the root cause of PCOD and PCOS as part of the Ayurvedic principles of StreeRogaChikitsa. PCOD is mainly caused due to faulty metabolism which is a Kapha disorder. This Ayurvedic tablet is known to help eliminate the toxins (Ama) that are known to reduce the rate of metabolism and thereby improves the metabolism. It is known to promote timely ovulation which regulates delayed and irregular periods. Not only does this powerful Ayurvedic tablet help restore hormonal balance, but also restores doshas imbalance, purifies the blood, improves fertility and immunity.



## Yoga poses for PCOS and PCOD



## 10. Conclusion

There is no clear cause for PCOD and PCOS. However, early detection or diagnosis will be constructive in relieving the symptoms as well as to reduce the complications involved. PCOD and PCOS treatment helps you to manage your concerns, including infertility, hirsutism, **acne**, immature follicles, obesity. However, specific treatment might involve lifestyle changes or medication.

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