

# PCOD: A Lifestyle Disorder may lead to Infertility

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## ABSTRACT

Polycystic ovarian disease is a health problem found in females these days due to bad lifestyle habits. This term has brought attentions of many scientists to get indulge in deep research to make awareness in females of both urban and rural areas. It is an endocrine disability that causes infertility in many females worldwide. In this research paper, a brief discussion has been on PCOD, its causes, body effects and commonly used medicines. Some effective methods and habits have been described for prevention of PCOD. This paper is an effort towards awareness in females regarding their health. A survey has been done on 20 females randomly selected out of which 7 females health status has been shared. Related data has been analyzed & discussed with them. It is believed that by adopting suggested changes in methodology regarding lifestyle habits and by following healthy eating practices females not only get awareness but also prevent from ovarian cancer too. Some of the female samples have experienced visible changes in health.

**Keywords:** Cause & effect, Lifestyle habits, PCOD, Symptoms of PCOD, Suggestions on medication

**HOW TO CITE THIS ARTICLE:** Agnivesh, Alpana Joshi, Dalwinder Singh, Geetika Arora, Vishvnayak, PCOD: A Lifestyle Disorder may lead to Infertility, J Res Med Dent Sci, 2022, 10(S1): 71-74. PCOD: A Lifestyle Disorder may lead to Infertility, J Res Med Dent Sci, 2022, 10(S1): 71-74

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Received: 02/05/2022, Manuscript No. JRMDS-22-58381;

**Editor assigned:** 04/05/2022, PreQC No. JRMDS-22-58381(PQ);

**Reviewed:** 16/05/2022, QC No JRMDS-22-58381;

**Revised:** 19/05/2022, Manuscript No. JRMDS-22-58381(R);

**Accepted:** 27/05/2022,

**Published:** 15/06/2022

## INTRODUCTION

Polycystic ovarian diseases is a lifestyle disorder found in females where 'poly' means many and 'cyst' means fluid filled small piece of sacs formed in ovaries of a female body. PCOD is a hormonal imbalance problem occurring in females these days. In female ovaries, estrogen & progesterone are the two hormones are responsible for reproduction and hormonal regulation imbalance in these levels can create PCOD. Many others hormones are also contributing in causing PCOD like luteinizing hormones (LH), follicle stimulating hormone (FSH) [1]. Due to this, many other problems also developed in female body that are further discussed in this paper.

Many factors have been reported to cause PCOD problem in females. Bad lifestyle habits and junk eating habits are

major reasons that cause PCOD. Initially its effect is not easily tractable but when wrong habits have been practiced for a long time such as few years, its results and symptoms appears. Majority of doctors do not know exactly what is the main reason for this. Overall majority of doctors consider hormonal imbalance as a major cause of PCOD that effects women fertility and lifestyle very badly. It may cause even ovarian cancer as well if proper treatment is not done. To cure PCOD, it is believed that one should take care of eating habits and physical activities so that a better lifestyle could be experienced [2].

## Symptoms of PCOD

As PCOD is a lifestyle disorder, its result is not a story of few days or months. PCOD is a result of bad habits in practice for years. Its results also take time to reflect outside on female body. Following are the symptoms of PCOD [3].

**Skin acne:** PCOD is an internal problem that occurs in female ovaries but its effect is not limited to ovaries only. Its effect can be shown on all over body. Acne on face, specifically cheeks is the first symptom of PCOD. Females

can take it as an indication and should be aware regarding skin health.

**Facial hair growth:** Due to PCOD, in female's facial hair growth is one of the most common symptoms. Generally, due to imbalance in hormones, facial hair growth increases. It occurs when endocrine secretes male hormones highly expressive over female hormones, resulting in growth of facial hairs.

**Cyst formation in ovaries:** In PCOD, cyst formation is the top most reason which causes all other problems progressively. Ovary size enlarges in PCOD & unable to produce quality egg. Cyst may be defined as a small fluid filled sacs or a piece of flash or unmated egg that cluster together to form a ball of variable shape that may stuck in fallopian tubes or in ovaries as well. Due to this a female experience irregularity in menstrual cycle & and the disease can progressively develop into ovarian cancer. Cyst are of two types in general [4].

**Dissolvable cyst:** It follows uncontrolled manner, they create and disappear naturally. No fixed treatment can be done to cure them.

**Unsolvable cyst:** This type of cyst cannot dissolve and disappear naturally. Specific medicinal treatment is required to treat them.

**Hair fall:** Excessive hair fall is the most dangerous symptom of PCOD that happens in females. In PCOD, the total balance of hormones gets disturbed and due to this imbalance condition, the appearance get most likely to be get affected. The top front part of the scalp loses hair roots for undetermined reasons and excessive hair loss is experienced. However, researchers have shown that hair fall is caused by many reasons like:

- Lack of Multi-vitamins
- Lack of physical activity
- Carelessness
- Rash treatment in washing and oiling hairs
- Weak scalp properties
- Thinning of hairs
- Mental Tension
- Irregularities in menstrual cycle

This is the first symptom that is easily noticeable by females. If females are missing cycles or any irregularity is observed it should be concluded that there could be health complications leading to sever ailments. There are two scenarios related to menstrual cycle that are given below [5].

**Early phase:** In this cycle comes before (28-30 days).

**Late phase:** In this cycle comes late after (28-30 days), Sometimes a female having PCOD, can miss 2 to 4 cycles as well. (If pregnancy attempt is not considered).

**Obesity:** Obesity is another deadly symptom of PCOD. The BMI (Body Mass Index) of PCOD patient's body has been known to be disturbed from normal range.. Excessive weight gain is usually observed and it is three times more difficult to lose weight in PCOD in

comparison to the time taken to lose weight by a normal fit female [6].

**Infertility:** It is the most common problem these days experienced by millions of females. Even if the egg quality is normal with healthy uterus, unblocked fallopian tubes, regular menstrual cycle and normal egg rupturing, females are not able to conceive. This inability to not conceive is known as infertility.

**Food craving:** In PCOD, a female suffers a lot of hormonal misbalance due to which body do not react properly with insulin due to which. The present insulin in body is not appropriately consumed and synthesized but hormones create food cravings specially sugar craving which penetrate ovaries to produce more and more male hormones.

**Lethargy:** Due to bad eating habits and bad lifestyle practiced in life for years, body become lethargic and energy less. One more reason is that, proper synthesis of food into carbohydrates and fats, improper consumption of vitamins and proteins misleads the body energy pattern.

**Drowsiness:** It is generally found that females with PCOD feel sleepy entire day and an adequate amount of sleep is never achieved by the body. The major reasons related to health that are responsible for causing PCOD are listed below. These features do have a negative impact on health of women which results in birth of diseases.[7].

**Sleep disorder:** In today world, it is generally found that youngsters do not follow proper sleep pattern which in long terms causes sleep disorder. Not sleeping in nights or late sleep habits in night cause late wakeup in mornings which cause disturbance in whole day activity management. But body sleep requirement will not be fulfilled. This practice for a long time will effect to fertility issues in females [8].

**Unhealthy eating habits:** Junk food is one of the major reason for bad eating habits. Today in North India, it is found that children and youngsters are fond of junk food like pizza burger noodles spicy food that causes stomach infections and other stomach related issues like digestion problem bloating, gastric problem and many more. This food is full of spices and lot of uncooked carbohydrates which deposits on inner layers of stomach. This leads to a fatty stomach and unhealthy food habits that increase overall weight of body.

**Lack of physical activity:** Majority of people have busy schedule nowadays, which leads to lack of time for any physical activity but the truth is, exercise is a necessary and mandatory part of life. The difference between one who practice exercise daily and another one who do not have time for physical activity or usually do not prefer exercise in daily lifestyle is always visible and do not require to mention.

**Stress and depression:** Stress and depression are two major factors that cause PCOD& infertility these days. People are less positive and more active towards getting

depressed on small reasons. Stress engage a part of our brains and one can mislead to overthinking which results in thinking capacity shrinkage[9].

**Family environment & surroundings:** Family environment and surrounding are the two major factors that have considered from many years for a good or bad mental condition. If a child learns misbehaving in family or abusive language used by parents, definitely children will learn them and that will degrade their behavior as well.

**Overthinking:** This is a reason that affects mental health a lot. Females are very sensitive to emotional facts and overthinking is worst thing that damage the good attitude and positivity supposed to be managed in lifestyle.

**Emotional pressure:** Emotional pressure is a type of misbehave that may lead to torture someone due to which one can suffer from mental illness and mental retardation as well. Not only PCOD but many more dangerous disease and fatal can be caused by these factors.

#### Suggested changes to prevent and cure PCOD

There are many methods by which one can prevent them by PCOD. By practicing them in daily life can leads to better lifestyle and health body. Some of the lifestyle changes have been explained below.

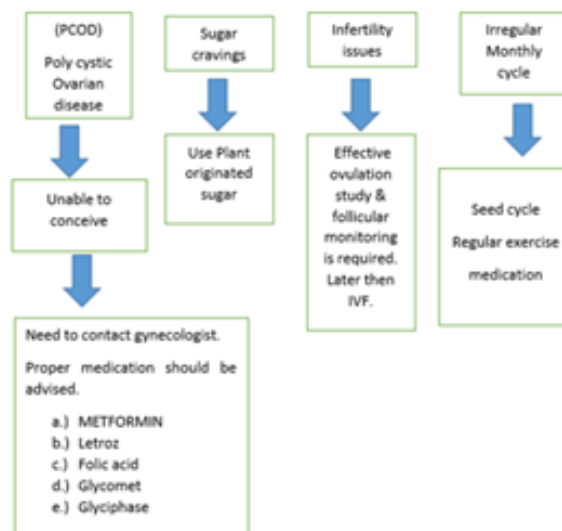
**Physical activity:** In PCOD, it is very important to be active physically, one can join sports and any physical activity like gardening or walking, dancing, so that carbohydrates can breakup in to small units and reduces fat.

**Regular exercise:** It is most effective and widely suggested by most of the doctors to PCOD females to develop a habit of regular exercise which increases the strength of core body, improves immune system and high metabolism. It helps to keep one's body active not only physically but mentally as well. There are some specific asana that cure PCOD, by doing them in practice in daily life a woman can cure PCOD without medicines as well. Few of the asana examples that have very high impact on PCOD are Dhanurasan, bridge pose, tree pose, Lotus pose, breathing exercise, Nokasan, regular stretching pelvic pose, Running, Surya Namaskar.

#### Healthy eating habits

Some major changes in eating habits that really work for treating the PCOD are discussed here. Most important eating habit is to avoid junk food like pizza burger noodles these kind of foods are not healthy for PCOD women. Elimination of sugar items. Even jiggery, honey, sugar candies. All of these contain a lot of calories that misbalance insulin level in body. Say NO to bakery items because it contains Maida products that deposits a layer at inner intestine which is not degradable. Use healthy replacements like STEVIA instead of conventional sugar/sweets item. Try vegan that includes green vegetables is the best option for proteins and vitamins. Drink a lot of

water, it is necessary to keep body hydrated. Protein balanced diet is mandatory for PCOD women because PCOD can be cured by correct diet intake only. Eat fruits and salads at least twice a day; it contains necessary fibers which is required for our body. Seed cycle is also one of the very good options that help in balancing the hormones of women. By balancing hormones, mood, health, mental wellness everything will be managed correctly [10]. As we know PCOD is an ovarian disease whose symptoms and features has been discussed above. Here in Figure1, the block diagram of some PCOD related symptoms and their solutions to cure them.



**Figure 1. Causes and treatment of PCOD. Few medicines are suggested by most of the doctors in case of PCOD women in order to regulate M cycle and to balance hormones.**

Due to PCOD, sugar cravings happen because insulin present in body is not properly synthesized therefore, to deal with sugar craving, one should use plant extract based STEVIA that tastes sweet but do not add up calorie intake in diet. Seed cycle consist of 2 phases in which 4 types of seeds are used.

**Follicular phase:** In first phase when follicles are under development it is suggested to take Flax seeds and pumpkin seeds for day 1 to day 14. It boosts up the estrogen level in women body up to a good extent.

**Luteal phase:** In second phase when, ovulation period is ongoing, sunflower seeds and sesame seeds are suggested to consume which helps to boosts up the level of progesterone hormone. The consumption time is from day 15 to day 30.

Both phases have separate advantages and effects on female hormones that ultimately benefits to overall hormonal health. It is one of the natural treatments of PCOD & followed by majority of women in India [11].

#### METHODOLOGY

Generally, in PCOD ovaries function to produce eggs is disturbed due to hormonal imbalance and difficulties

faced in formation of dominant egg. Multiple eggs produced in ovaries that develops a cluster/group of eggs which further is not capable of being ruptured and fertile with sperms. Therefore, eggs with polycystic nature are not able to be released in uterus. In some critical cases, these cluster mass structure blocks the fallopian tubes as well.

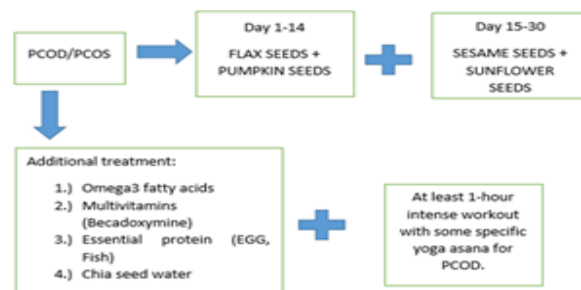
The following list of tests are generally advised for checkup in case of PCOD females.

- To check the blockage of fallopian tubes, a HSG test is done.
- AMH test is done to check anti Mulerian hormone level in body.
- CA-125 test is done to check a marker regarding ovarian cancer cell formation.
- LH test is done to check luteinizing hormones level.
- FSH test is done to check follicle stimulating hormone levels.

A general methodology has been purposed in order to spread awareness of women health & PCOD. A survey has been done on random 7 women regarding PCOD & Health issues faced by them. On the basis of few parameters the correct suggestion has been given to the females facing

issues related to PCOD as shown in Table 1. An awareness information has been shared with these women.

A pictorial way to treat PCOD by natural methods is given in Figure 2. It is assumed that allopathic medicines do have some side effects as well that may damage more the metabolism system of a PCOD women therefore it has been suggested to go for natural treatment[12]. The step wise block diagram is given in which seed cycle and other additional treatment has been suggested that are much affected as comparison of typical medicines.



**Figure 2. A natural way to treat PCOD is given with seed cycle specifications and additional nutritional information such as vitamins and omega 3 fatty acids that are very necessary to include in our diet.**

**Table1. Below is the data collected from survey activity from random 7 females and various questions asked by them in order to detect the possibility of developing PCOD in their body. Best suited suggestions also provided to them.**

Names	Age	Weight	Obesity	Irregularity in cycle	Eating habits	Problems faced	Suggestion
Neha	16	32	NO	NO	Neat	No	Do exercise daily
Georgia	18	35	no	no	Once in a while	No	Brisk walk & yoga
Nancy	21	38	No	no	Twice in a month	No	Eat healthy
Huma	18	45	Mild	Few times	Once in month	Acne on face	Drink lot of water
Daisy	26	67	Yes	yes	Once in every 10 days	Cramps	Follow instructions
veronica	38	92	Yes	Yes	Almost daily junk	PCOD	Strictly change diet & consult Dr.
Eisha	29	76	Yes	yes	Every weak	PCOD	Contact Gyne.

From the above data collected all the females can be divided into two categories. The first category is of those who are at no risk or very low risk. Another category is of those females who are at high risk.

Category 1: Women who are not at risk or at low risk:

a.) Neha b.) Georgia c.) Nancy d.) Huma

Category2: women that are at high risk:

a.)Daisy b.) Veronica c.) Eisha

Suggestions advised to be followed by women who are at high risk

Consult an experienced MBBS, MD gynecologist for professional examination of ovaries.

Strictly follow a healthy diet with appropriate amount of protein.

At least one-hour exercise in morning and evening. Follow proper asana to cure PCOD.

Some of the medicines are suggested that are given below:

METFORMIN: It is a specific type of drug that is used to treat type 2 diabetic patients.

GLYCOMET: It controls the insulin level of body.

GLYCIPHAGE: It cures PCOD up to an extent only.

MET-PCO Care: It regulates the hormonal disabilities.

ZOFORM: It controls and regulates the insulin resistance property of body.

**CONCLUSION**

The problematic features of PCOD have been discussed in this paper in terms of its symptoms and causes. To solve this problem, a survey has been done and related health status data has been shared within, the problem can be minimized by spreading awareness regarding PCOD/PCOS. Healthy eating habits and effective changes in lifestyles are strongly recommended as these lifestyles

change are so beneficial that not only, PCOD women, but anyone can adopt them in daily life for better health. These suggested methodology is limited to treat polycystic patient's only, however by following these methods some of females are able to cure their self and achieved a recognized improvement in health So, conclusion of this paper is one should be determined about own health and societies should organize free health camps for awareness and services for overall wellness of nation. Suggested methodology can help several patients in future to control health and lifestyle in a synchronized way.

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