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## **Ayurveda and Integrated Medical Sciences**

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# Role of Yogasana in prevention of Polycystic **Ovarian Syndrome**

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### ABSTRACT

PCOS is an emerging lifestyle disorder involving multiple systems occurring among 5-10% of the Indian adult female population in their reproductive period. It is believed that both genetic predisposition and lifestyle factors like obesity and stress contribute to the etiology of PCOS. PCOS is characterized by chronic anovulation and hyperandrogenism in the absence of underlying adrenal or pituitary disease. Women with PCOS may complain about variable clinical manifestations loss including oligomenorrhoea, hirsutism, acne and infertility. The most preferred and effective method of treatment of PCOS is lifestyle modification. Weight loss is an important treatment strategy. Yoga is a complete prescription for the healthy body and mind which can destroy the root cause of PCOS which is obesity and stress, ultimately leads to better quality of life, Yogasanas promotes hormonal balance and deep relaxation helping to bring the adrenal and cortisol levels of stressed out PCOS minds and bodies in check. Yogasanas stimulates energy systems within the body. Yogasanas helps to stimulate the functions of the reproductive organs, relieves menstrual discomfort and normalizes the menstrual cycle, increases blood flow to the reproductive organs and enhances the functions of the ovaries.

Key words: PCOS, Polycystic Ovarian Syndrome, Yogasana.

#### **INTRODUCTION**

Polycystic ovarian Syndrome (PCOS), an emerging lifestyle disorder involving multiple systems affecting 5-10 % of the women with hyperandrogenism, chronic anovulation, and poly cystic ovaries. PCOS is a psychosomatic disorder of uncertain etiology characterized by Obesity, An ovulation associated with Primary of Secondary infertility, hirsutism, abnormal menstrual pattern, increased incidence of pregnancy loss, and pregnancy related complications.

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Published by Maharshi Charaka Ayurveda Organization, Vijayapur, Karnataka (Regd) under the license CC- So, it is important to provide Psychic and somatic treatment for complete remission of PCOS. Modern medical science has no ailment to cure PCOS, they only able to provide symptomatic treatment for it, which has unsatisfactory side results lots of effects and costly also and when medication not gives although symptomatic relief then they go for surgery drilling of ovaries. Now on other hand our divine ancient science cures PCOS without any side effects.[1]

Yoga is a great stress buster stress in women life can even lead to an unwanted weight gain. Entering into peaceful state lowers the production of the stress hormone cortisol which is one of the most important causes for storage of fat in the body. Yoga basically encourages one step outside of the comfort zone to better understand one's self from a very different perspective, optimistically. Ultimately leads to better quality of life.

#### **Clinical Features**

Increased obesity (abdominal - 50%), Menstrual abnormalities (70%), Presence of hirsutism and acne (70%) Periods, and fertility - no periods / periods that

are irregular / infrequent heavy, Immature ovarian eggs that do not ovulate difficulty becoming pregnant. Hair and skin – acne on your face, scalp hair loss, darkened skin patches. Psychological effects – depression and anxiety are common symptoms of PCOS. [2],[3]

PCOS to be present if 2 out 3 criteria are met: (1) Oligoovulation and or Anovulation, (2) Excess Androgen activity, (3) Poly Cystic Ovary (by Transvaginal USG) and other causes of PCOS are excluded. It is important to know that PCOS can present in any age. Many can be diagnosed in young children, some might not present until after menopause

#### **Concept of Modern science**

The etiology is multi factorial. [4],[5]

- 1. Abnormality of HPO axis
- 2. Genetic inheritance
- Hyperinsulinaemia arising from receptor dysfunction
- 4. Adrenal/ ovarian hyperandrogenaemia

Table 1: Features of PCOS [6]

Mechanism	Manifestations
Pituitary dysfunction	High serum LH High serum prolactin
Anovulatory menstrual cycles	Oligomenorrhea Secondary amenorrhea Cystic ovaries Infertility
Androgen excess	Hirsutism acne
Obesity	Hyperglycemia Elevated oestrogens
Insulin resistance	Dyslipidaemia Hypertension

#### Risks for PCOS [7]

Women with PCOS are at risk for the following

- 1. Endometrial Cancer
- 2. Insulin resistance Type II diabetes
- 3. Hypertension
- 4. Cardiovascular disease
- 5. Weight gain
- 6. Osteoporosis
- 7. Miscarriage

#### Modern Treatment [8],[9],[10]

Insulin sensitizers, Agents, oral contraceptive pills, Ovulation Induction in Infertile PCOS. Surgical: The patients who become resisting to medical treatment then Laparoscopic ovarian drilling. Risks of modern Treatment: Unsatisfactory results, enormous expenses, Disturbs the natural biological system for hormonal production, other systemic disorders occur.

# Concept of *Ayurveda* behind etiopathogenesis of PCOS

According to Ayurveda the Ahara factor (diet), Vihar factor (day sleep and overnight work, lack of meditation and exercise) and Manasic factor (sedentary life style and psychological factor) play important role in manifestation of PCOS. These factors lead to vitiation of Vata-Kapha Dosha converted into Vata-kapha Artava Dushti or Granthi Bhoot Artava. In Ayurveda, there are two types of abnormal dietetic habits Atisantarapana which cause infertility and obesity and Atiapatarapana which causes Sukra Mamsa Parikshaya. Aahara with Madhura, Sheeta, Snigdha, Guru, Pichchila etc. properties are dominant with Prithvi and Jala Mahabhootas and add to the quantity of Meda and Kapha of the body. Faulty food habits like Advashana and Virudhaashana and popularity of fast foods leads to vitiation of Jatharagni and leads to production of Ama which starts the pathogenesis of obesity. Lack of exercise, day sleep and overnight work promotes fat deposition ultimately converted in Vata Kapha Artava Dusti (PCOS).

#### **Role of stress and obesity causes PCOS**

There is a strong relation between obesity stress and PCOS. Approximately 50-60 % of women with PCOS are obese. Obesity and stress disturb normal hypothalmo-pitutary-ovarian axis leads to insulin resistance produce stage of hyperandrogenism due to which somatic symptoms of PCOS like Hirusitism, Anovulation, Abnormal menstruation, Sub fertility, acne and psychic symptoms like anxiety, depression, insomnia, loss of concentration etc. are developed. A reduction of weight as small as even 7% may dramatically improve endocrine profile of PCOS and restore fertility. Due to Stress cortisol levels becomes high (the stress hormone) and it is one of the major causes of fat storage and weight gain.

#### Role of Yogasana reducing stress & obesity [11]

Yoga is a great stress buster stress in women life can even lead to an unwanted weight gain. Entering into peaceful state lowers the production of the stress hormone cortisol. Cortisol causes the body to store fat. Yoga eases any stress through breathing techniques that bring complete relaxation within the body. Relaxation can work to offset the effects of hormonal imbalance and take care of any negative emotions, irritability and frequent mood swings. Practicing Surya Namaskar is the easiest way to be in shape. Yoga strengthens the muscles, improves hormonal levels and combats insulin resistance. Yoga along with a healthy diet helps to lose weight. Reasons that Yoga might help the weight loss process include:

- 1. Effective stress management, reducing the likelihood of stress eating.
- Increased body awareness, specifically relating to hunger and satiety Mindfulness and mindful eating.

# Role of *Yogasana* Is Beneficial for Women with PCOS<sup>[12]</sup>

The science of *Yogasanas* works at root cause of PCOS i.e., stress and Obesity. *Yoga* is much deeper than just the physical body level. *Yogasanas* helps to release

deeply stored stress in the system, which can help improve PCOS symptoms.

- Holding weight-bearing poses builds muscle. In turn, increased muscle mass helps to combat insulin resistance - one of the keys to PCOS management.
- An active Yogasana practice increases heart rate, providing a cardiovascular workout and leading to weight loss.
- Aasanas promotes hormonal balance and deep relaxation, helping to bring the adrenal and cortisol levels of stressed-out PCOS minds and bodies in check.

#### Yogasanas in PCOS [13]

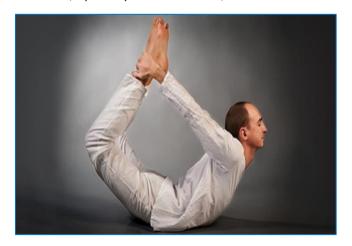
Following Yogasanas are important in PCOS

Suryanamaskara, Badhakonasana , Bhujangasana , Naukasana, Dhanurasana, Balasana, Padmasana, Paschimottasana.

#### Mode of action Yogasanas in PCOS [14]

#### Role of Dhunurasana in PCOS

It helps to stimulates the function of the reproductive organs, relieves menstrual discomfort and normalizes the menstrual cycle. It also helps people with kidney disorders, opens up the chest neck, shoulders.



#### Role of Balasana in PCOS

One of the vital yoga poses included in PCOS natural treatment is the child's pose that brings about relaxation by soothing the Central Nervous System. It also releases lower back tension, menstrual cramps,

and PMS symptoms and normalizes blood flow throughout the body.



#### Role of Padmasana in PCOS [15]

Padmasana is a basic meditation pose that is often included in Pranayama breathing exercise. This pose helps to stretch the pelvic region and also helps to correct hormonal imbalance which is vital for PCOS treatment. It helps to reduce menstrual discomfort, control blood pressure, ease childbirth and relax the mind.



### Role of Naukasana in PCOS

The boat pose is one of the useful *Yogasanas* for PCOS treatment that is also beneficial for weight loss as well. It is the best type of yoga for weight loss that helps to achieve a perfectly flat abdomen. It puts controlled pressure on the abdominal region, increases blood flow to the reproductive organs and enhances the functions of the ovaries.



### Suryanamaskara - Benefits of Surya Namaskar [16]

### **Improves Blood Circulation of the Body**

Due to the active process of inhalation and exhalation, the lungs are constantly ventilated and the blood remains oxygenated. It's a great way of detoxing your body and helping it get rid of excess carbon dioxide and other toxic gases.

#### **Your Mantra to Weight loss**

When done at a fast pace, it is a great cardiovascular workout that stretches the abdominal muscles while simultaneously helping you reduce excess weight around your stomach. The *Asanas* also result in toning your arms, abs and giving great flexibility to your spine. Moreover, It helps to strengthen your entire skeletal system including your ligaments.

#### **Promotes a Regular Menstrual Cycle**

If you're facing the problem of an irregular menstrual cycle, these *Asanas* will help you suppress this irregularity and if practiced daily, it ensures an easy childbirth.

#### **Anti-anxiety and Calming Properties**

Surya Namaskar helps to improve memory and the nervous system. Moreover, it stabilizes the activity of the endocrine and thyroid glands, thereby reducing anxiety and inducing the sensation of complete calmness and tranquility.



#### Role of Badhakonasana in PCOS

Badhakonasana or Butterfly pose is a simple and easy to do yoga pose that works wonderfully for natural

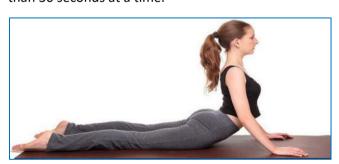
PCOS treatment. This *Asana* helps to open up the pelvic region and promote relaxation which in turn helps to reduce stress and relieve discomfort related to menstruation.



But you must have a cool and calm mind while practicing this yoga pose.

#### Role of Bhujangasana in PCOS

The cobra pose is yet another easy and simple *Yoga Asana* that holds an important place in PCOS *Yoga* treatment and women of all ages can practice it right from PCOS diagnosis in order to control the symptoms naturally. This posture exerts soothing pressure on the stomach and aids to stimulate the functions of the ovary. It also helps in better digestion and reducing stress. But it's best not the hold this posture for more than 30 seconds at a time.



Role of Paschimottasana in PCOS



This asana stretches the lower back, hamstrings and hips. It improves fertility and relieves stress. Tones the abdominal-pelvic organs. Balance the menstrual cycle.

#### Role of Shavasana in PCOS

Last but not the least is the corpse pose, which holds an extremely important place in *Yoga*, and no *Yoga* session can come to an end without this ending posture. This relaxing posture is beneficial for polycystic ovary syndrome also because it helps to relax the body and mind and relieve stress and tension in an effective manner.



### Role of Yogasanas in PCOS [17]

These are some ways in which it helps:

- 1. Builds muscles which combat insulin resistance which is very important to manage PCOS.
- Increases heart rate, provides a cardiovascular workout and leads to weight loss.
- Promotes hormonal balance, relaxation and brings adrenal and cortisol levels in control thus healing stress. This can enhance chances of conception too.
- 4. Has a pain-numbing effect.
- 5. Solves digestive disorders which prevail in PCOS by improving the functions of the digestive organs.
- 6. Promotes mental wellbeing thus addressing issues of stress and anxiety.
- 7. Helps in dealing with stressful situations of everyday life through breathing exercises

#### **DISCUSSION**

Yogasana can play a massive role in the prevention and management of PCOS. Since Yoga works at levels

deeper and more intensive than the physical level, *Yoga* can help release stress, which can relieve PCOS symptoms. *Asanas* or Yoga postures designed for POCS. *Yogasana* modifies glandular function so that the endocrine system works at maximum efficacy and accords the hormonal secretions. *Yogasana* brings harmony within the body, mind and emotions to control PCOS naturally. *Yogasana* assists in optimization in lifestyle by enhancing body awareness and self-care. *Yogasana* brings peace and comfort and hence a path to healing painful symptoms of PCOS. [18]

#### **CONCLUSION**

Practicing these *Asanas* will become a reason to boost the health of the pelvic organs such as uterus and ovaries and improve functioning of the endocrine glands. Coupled with relaxation techniques, *Yoga* promotes good health and perks up energy levels.

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