

# The Positive effects of Asanas and Pranayama on PCOS and How to deal with hormonal imbalance?

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**Abstract:** This paper will highlight the health benefits of Yoga for women through the practice of Yoga and explore how Yoga can significantly enhance their health and its positive effects reducing the symptoms of Polycystic ovary syndrome (PCOS). PCOS is a condition that affects a woman's hormone levels. It is one of the most common female endocrine disorders. It is due to the enlargement of ovaries with multiple and a hyper vascularized androgen-secreting stroma that cause hair growth and baldness on the face and body. PCOS is both psychosomatic and lifestyle disorder. There is a strong relation between obesity, stress and PCOS. Around 70% women are not aware of the PCOS condition unless they are trying to conceive a baby. Along with hirsutism, women also suffer from amenorrhea, obesity, stress, infertility, acne, anxiety, etc. Yoga and usage of specific asanas and pranayama are very effective and proved to be an alternative strategy to treat PCOS effectively. Practicing yoga may help decrease testosterone levels and alleviate symptoms of anxiety and depression in women with PCOS. More specifically, women doing regular one-hour yoga class three times a week for three months can see a significant and positive change in overall PCOS symptoms in their body. Yoga can be seen as an alternative to treat the symptoms of PCOS.

**Keywords:** PCOS, Yoga, Asanas, Hyper androgen, Pranayama



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## INTRODUCTION

Obesity and stress are the main symptoms in PCOS which are associated with insulin resistance that disturb the normal hypothalamo-pituitary-ovarian axis and responsible for PCOS symptoms. Most women with PCOS are also overweight or obese, further enhancing androgen secretion while impairing metabolism and reproductive functions and possibly favoring the development of the PCOS phenotype. As it is known that PCOS itself is not a disease whereas it is sum of disorders of hormone which creates moderate to severe health issues in women body. The research in PCOS has led to an impressive increase of scientific interest in this disorder, which should be further directed to improve individualized clinical approaches and, consequently therapeutic strategies.

Yoga has been healing people for generations. Originating in the Indian subcontinent, it has provided physical, mental and spiritual support to humans. Throughout these years and eras, the yogic science has served people from all age groups and genders equally. However, there are some yoga asanas that are of immense benefits for women in particular.

Women, according to the Indian mythology and Hinduism, are the source of all kinds of energy. The life of woman is completely different as compare to man. Her hormones play very significant role throughout the life. A woman goes through multiple phases of life, from childhood to puberty and from motherhood to menopause. Yoga helps you deal with all these phases, changes and challenges coming into your life. In PCOS modern medical science provide only symptomatic treatment for it which has unsatisfactory results lots of side effects and costly 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 and free of cost that is yoga practice. Yoga is a complete practice for the healthy body and mind which can destroy the root cause of PCOS that is obesity and stress which is one of the most important causes for storage of fat in the body. Yoga is only one part of an overall treatment plan for PCOS. Yoga is a naturopathic process is slow but certain.

## PCOS SYMPTOM

The symptoms of PCOS include acne, thinning of scalp, facial hair, irregular periods, infertility, inflammation, heavy bleeding. Women suffering from this condition usually have higher level of male hormones and lower progesterone levels. If not treated, it could lead to serious health problems like heart disease, diabetes and endometrial cancer. Women with PCOS are twice as likely as women without the condition to deliver their baby prematurely. They are also at high risk for miscarriage, high blood pressure and gestational diabetes. With proper diet and workout, you can manage the PCOS miscarriage, premature birth, symptoms. Yoga is one of the best ways to deal with PCOS.

## YOGAPOSESANDITS BENEFITS

Swami Satchidananda quote “when you do something, do it with one hundred percent of the mind. Don’t do it half way. Whatever you do, do it with full concentration. That is Yoga. It’s not that you are just going into a corner, sitting with the spine erect and then doing some japa or some breathing and that is Yoga. My Yoga is everything. All that you do is Yoga. When you start doing something, do only that—one hundred percent. ‘Yogahakarmasukaushalam,’ the Bhagavad Gita says. That means perfection in your every action is Yoga.”

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Adhering to Swami quote one should exercise and practice yoga with utmost gratitude and with full dedication. Dedication and consistency is a key to achieve the full benefits of yoga.

According to Sage Patanjali “Sthirasukha asanam P.Y.S II, 46”: Postures bring stability of the body and poise of the mind.

The “tatah ksyiate prakasa avaranam” sutra speaks about the even more vast potentiality of pranayama, it almost removes everything that comes in the way of self-realization. The Upanishads speak about pranayama as the highest discipline. By practicing it, one practically abolishes every malevolent sense, like illusion, ignorance, yearning, or hallucination.

Here are some of the effective yoga asanas for the treatment of polycystic ovarian syndrome.

#### **MALASANA (GARLAND POSE)**

Malasana is all about stretching your thighs and feeling the strength of your body. Begin this pose by standing on the mat with the feet slightly wider. Bend your knees slowly in the squatting position. Bring your hands together to join the palms in Namaskar pose by gently pressing the inner knees with your elbows to make it wider apart. Bring your hips down a little but making sure your spine is elongated and the chest opened up. The asana is good for relieving tension from the thigh and neck region. It also stretches the hips, groin, and ankles.

#### **ADHOMUKHASVANASANA (DOWNWARD-FACING DOG)**

##### **BHJANGASANA**

Bhujangasana or the cobra pose will help in regulating the menstrual cycle. This pose will also help in improving the blood circulation in the pelvic region and improve fertility. You can do bhujangasana by lying down on your stomach with your palms on the side near your chest. Now, lift your upper body up and look up. Hold the pose for a minute and then return to the original position.

##### **BADHAKONASANA – (BUTTERFLY POSE)**

Sit with your spine erect and legs spread straight out. Now bend your knees and bring your feet towards the pelvis. The soles of your feet should touch each other. Grab your feet tightly with your hands. You may place the hands underneath the feet for support. Make an effort to bring the heels as close to the genitals as possible. Take a deep breath in. Breathing out, press the thighs and knees downward towards the floor. Make a gentle effort to keep pressing them downward. Now start flapping both the legs up and down like the wings of a butterfly. Start slow and gradually increase the speed. Keep breathing normally throughout. Fly higher and higher, as fast as you comfortably can. Slow down and then stop. Take a deep breath in and as you exhale, bend forward, keeping the chin up and spine erect. Press your elbows on the thighs or on the knees, pushing the knees and thighs closer to the floor. Feel the stretch in the inner thighs and take long, deep breaths,

relaxing the muscles more and more. Take a deep breath in and bring the torso up. As you exhale, gently release the posture. Straighten the legs out in front of you and relax.

##### **SUPTABADDHAKONASANA – (RECLINED GODDESS POSE)**

Supta Baddha Konasana is a relaxing pose that is also a hip opener. As a restorative pose, you should be as supported and comfortable as possible.

Come to lie on your back. Bend your knees, keeping the soles of your feet on the floor. Open your knees out to either side, bringing the soles of your feet together. The legs will be in the same position as they are in Cobbler's Pose (Baddha Konasana). Your arms can be in any comfortable position—out in a T shape, overhead, relaxed by your sides or resting on your thighs are some options. Stay here several minutes as gravity works to deepen your stretch. Breathe naturally throughout the pose. To come out, reach down and help your knees come back together. Then roll over to one side and use your hands to support you as you sit up.

##### **JANU SIRASANA – HEAD-TO-KNEE FORWARD BEND**

Sit with the legs outstretched in front of you (Staff Pose/Dandasana). Bend your right knee and place the right foot against the left inner thigh, relaxing the knee down.

As you inhale, flex the left foot, press the top of the thigh down, lengthen the spine and raise your arms either side of your head. Rotate your upper body slightly so you are facing the left leg and then fold forward from the hips as you exhale. Keep your spine long, chest open and shoulders relaxed. Place your hands down, framing your left leg, or take hold of your ankle or foot. Stay for 5 to 10 breaths. Inhale, as you come out of the pose. This calms the mind. It stimulates digestion, stretches the hips, back of the body and groins, relieves menstrual discomfort.

##### **USTRASANA (CAMEL POSE)**

Begin kneeling with your thighs perpendicular to the floor and your knees and feet hip-distance apart. Extend your big toes straight back, pressing down with all 10 toenails and firming your outer ankles into your

midline. Spin your inner thighs back, and gently release the flesh of your buttocks toward the backs of your knees. Your pelvis is neutral, neither spilling forward nor spilling back, and stacks directly over your knees. Root down from the tops of your feet to your knees; rebound up with your chest. Bring your palms together in front of your sternum, and drop your chin toward your sternum.

## PRANAYAMA

### *A. Nadi Shodhan Pranayama*

Nadi shodhana is inhaling and exhaling alternatively through individual nostrils of the nose. It is done in tandem: first, you inhale from the left, exhale from the right, and then inhale from the right, and exhale from the left, in slow continuous cycles. The most direct connection that this pranayam exercise has with PCOS is that: it helps in balancing of the male and female energies in the body (which is the root cause of PCOS). It also helps establish a balance between the levels of different hormones in the body.

### *B. Bhramari*

PCOS can really take its toll on your mental calm and peace. One of the best pranayam exercises to calm yourself down in the face of anxiety and panic is to do the Bhramari: place both palms on your ears, close your eyes, draw a deep breath, and exhale slowly while humming as loud as you can. If placing palms is difficult, you can close your eyes and ears as shown in the picture above.

### *C. Kapaalbhati*

Kapaalbhati is the best breathing exercise for weight management. It shows a high impact on the abdominal muscles and the core. Kapaalbhati also works to bring diabetes under control. Being two significant complications associated with PCOS, this is an excellent exercise for women to practice.

## RESULTS AND DISCUSSIONS

Obesity, hormonal imbalance, mental health problems such as depression, anxiety, stress, etc are among the most common reasons for individuals to seek treatment with Yoga, Asanas and Pranayama. Yoga encourages one to relax, ease the breath and focus on the present,

shifting the balance from the sympathetic nervous system and the flight-or-fight response to the parasympathetic system and the relaxation response. Its effects are mainly calming and restorative; it lowers breathing and heart rate, decreases blood pressure, lowers cortisol levels, and increases blood flow to the intestines and vital organs.

With aiming on holistic view of calmness of the mind and create a sense of well-being, feelings of relaxation, improved self-confidence, improved efficiency, increased attentiveness, lowered irritability, and an optimistic outlook on life, it also help us treating the symptoms of PCOS such as obesity, stress and hormonal imbalance. The regular practice of yoga generates balanced energy which is vital to the function of the immune system. It optimizes the body's sympathetic responses to stressful stimuli and restores autonomic regulatory reflex mechanisms associated with stress. The regular practice of Yoga results in lower anxiety, heart rate, respiratory rate, blood pressure, and cardiac output in students practicing yoga and meditation.

Consistent yoga practice improves depression and can lead to significant increases in serotonin levels coupled with decreases in the levels of monamine oxidase, an enzyme that breaks down neurotransmitters and cortisol. A range of therapeutic approaches is available for the management of depressive disorders, but many patients turn to complementary therapies due to the adverse effects of medication, lack of response or simply preference for the complementary approach. All yoga postures described above demonstrate the potential beneficial effects of yoga interventions on depression, stress, and anxiety, which all cause the severity of PCOS effect on women.

Yoga increases blood flow and levels of hemoglobin and red blood cells which allows for more oxygen to reach the body cells, enhancing their function and reducing stress and improving metabolism. Many yoga asanas and postures lowers the resting heart rate, increases endurance, and can improve the maximum uptake and utilization of oxygen during exercise.

Yoga, breathing exercises, and meditation can reduce stress, promote healing, and enhance quality of life for patients with cancer. With growth of stress hormones, obesity and insomnia with PCOS, thus it is especially important for people with PCOS to reduce and manage

stress effectively. Yoga and its postures suggest that it can produce an invigorating effect on mental and physical energy that improves fitness and reduces unwanted hormones. Additionally, when practicing yoga, a fundamental emphasis is placed on accepting one's moment-to-moment experiences creating mindfulness and not forcing the body past its comfortable limits. Having this healthy sense of acceptance is especially important for individuals dealing with life-threatening illness as it decreases the stress one experiences from unpleasant symptomology. The postures precisely address the tension, holding, and blockage of energy in any particular joint or organ. As this tension is released, energy flows more readily throughout the body and allows patients to experience a sense of increased well-being and strength as well as a balance of mind, body and spirit.

The significant positive effects of yoga in reducing stress, anxiety, and depression have been confirmed.

## CONCLUSIONS

Even in the modern times, treatment for PCOS involves mostly pharmacological interventions; however, mind-body interventions are becoming increasingly popular as a means to reduce stress in individuals, resulting in the positive effects on PCOS symptoms. Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain hormones, stress, wellness, and alleviate a range of health problems and ailments. Yoga should be considered as a complementary therapy or alternative method for medical therapy in the treatment of PCOS whose main symptoms are stress, anxiety, depression, and other mood disorders as it has been shown to create a greater sense of well-being, increase feelings of relaxation, improve self-confidence and body image, improve efficiency, better interpersonal relationships, increase attentiveness, lower irritability, and encourage an optimistic outlook on life.

As it is common belief that modern medicine has the ability in many cases to heal physical diseases and alleviate psychological disorders, it is argued that a purely medical approach is far less effective in healing the PCOS and its related disorders in women's body. The

discipline of yoga offers individuals a timeless and holistic model of health and healing and although it may not result in the complete elimination of physical diseases and/or adverse conditions from the body it offers a holistic path of healing.

The regular practice of yoga can prove very beneficial for women. Yoga can provide innumerable benefits to women like improving reproductive system, helping in natural child birth, giving complete workout to the body. Adolescence shapes the entire lifetime of young girls as they tend to undergo major changes in body and mind. This period of sudden change is an ideal time to begin the practice of Yogasanas, especially with a combination of Pranayama and meditation. It will not only help develop a healthy and regular menstrual cycle, but will also help to deal with the psychological changes, curiosity and fear that they may experience due to physical imbalance. Regular practice of yoga aids in developing muscular strength, avoids obesity, assist the development of the reproductive organs, and balance hormones. Middle-age for women comes with its own set of complexities. The benefits of yoga during this time are substantial. It plays the role of a "healer" for a new set of physical changes in a woman. Regular practice will help to maintain physical, mental, and emotional health. Specifically, practicing Yoga, Pranayam and Meditation, during the menopausal phase help to balance hormones, keep weight under control, avoid medical complications like thyroid, and maintain a healthy digestive system.

A daily Yoga Routine can be modified and adapted to suit a woman's changing needs in each phase of life, helping her to achieve peace of mind and bodily poise. Yoga course teaches a variety of yoga routines, which can be practiced in the comfort of your home or even at your workplace.

## REFERENCES

1. Yatendra Kumar Sharma, et al. Scientific benefits of Yoga: A Review. International Journal of Multidisciplinary Research Review 3(8):144-148.
2. Catherine Woodyard, Exploring the therapeutic effects of yoga and its ability to increase quality of life. Int J Yoga. 2011 Jul-Dec; 4(2): 49-54.
3. Shirley Telles et al. Benefits and adverse effects associated with yoga practice: A cross-sectional survey from India. Complementary Therapies in Medicine. Volume 57,

March 2021, 102644

4. Geeta S Iyenger, 1983. Yoga a Gem for Women. Publisher: Zaccheus Entertainment
5. Swami SatyanandaSaraswati. 2013. Asana Pranayama Mudra Bandha. Publisher: Bihar School of Yoga.
6. Dunaif A. Hyperandrogenic anovulation(PCOS):A unique disorder of insulin action associated with an increased risk of non insulin dependent diabetes mellitus.Am J Med 1995; 98:33S-39S
7. Franks S. Polycystic ovary syndrome. N Engl J Med 1995;333:853-61
8. Gautam N Allahbadia, Rubina Merchant, Gynecological Endoscopy and Infertility, edition 1st 2006,Chapter 8;p.71
9. Gautam N Allahbadia, Rubina Merchant, Gynecological Endoscopy and Infertility, edition 1st 2006,Chapter 8;p.72
10. SabaratanamArulkumaran, Essential of Gynecology,2nd edition, poly cystic ovarian syndrome chap. 30;p.367
11. D.C. Dutta, Text book of gynecology, 4th edition 2007,chapter 27;p.422
12. <http://www.speakingtree.in/health/yoga date 13/6/14>
13. D.C. Dutta, Text book of gynecology, 4th edition 2007,chapter 27;p.422
14. Gautam N Allahbadia,RubinaMerchant,Gynecological Endoscopy and Infertility,edition 1st 2006,Chapter 8;p.73-74
15. Gambineri A, C Pelusi,VVicennati, U Pagotto, R pasquali. Obesity and the polycystic ovary syndrome. Int J Obesity Related Metabolic Disorder. 26(7) (2002): 883-96.
16. Frank S, Kiddy D Sharp Pet al. Obesity and polycystic ovary syndrome. Ann NY Acad Sci 1991;626:201-6
17. <http://healthmedup/topic/yoga date 13/6/14>
18. <http://yogaandbreath.org date 13/6/14>
19. <http://artofliving.org/butter-flypose date 13/6/14>
20. <http://www.healthmevup.com/photogallery-health-living/polycystic-ovary-syndrome-pcos-yoga-posturesforPCOS/19963/5 date 13/6/14>
21. <http://www.yogajournal.composes/987 date 13/6/14>
22. <http://artofliving.org/in-en/yoga-poses date 13/6/14>
23. <http://artofliving.org/in-en/yoga-poses-copse-pose-svasasan date 13/6/14>
24. <http://artofliving.org/in-en/yoga-poses-padam-sadhana date 13/6/14>