

Staying Positive with PCOS

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"If you have Polycystic Ovarian Syndrome (PCOS), It's Time for an Alarm in your Mind"

What is Polycystic Ovarian Syndrome (PCOS)

It is one of the most common metabolic and reproductive disorders among women of reproductive age affecting 18% of women in India.

What is the Exact Cause of PCOS

The best understanding of the pathophysiology of PCOS deals with it as a multifaceted disease involving uncontrolled ovarian steroidogenesis, aberrant insulin signaling, excessive oxidative stress, and genetic/environmental factors

An intrinsic defect in theca cells can partially explain the hyperandrogenemia in patients with PCOS. Indeed, women with PCOS have theca cells that still secrete high levels of androgens due to an intrinsic activation of steroidogenesis even in the absence of trophic factors. This intrinsic dysregulation also affects granulosa cells which produce up to 4 times higher levels of anti-mullerian hormone in women with PCOS in comparison to healthy controls. Studies also show an elevated number of follicles, primarily pre-antral and small antral follicles, in females with PCOS. A defect in apoptotic processes in some maturing follicles further increases their count in PCOS patients.

Alternatively, decreased insulin sensitivity attributable to a postreceptor binding defect in the insulin signaling pathways has been identified as an intrinsic component of PCOS, independent of obesity. It was also reported an alteration in gene expression of some players in insulin signaling pathways by microarray gene analysis. Moreover, PCOS has been associated with increased glycooxidative stress secondary to mitochondrial dysfunction. Oxidative stress can itself induce insulin resistance and

hyperandrogenism in patients with PCOS.

What Symptoms do I Experience with PCOS

- *Irregular or Lack of Menses:* Women will have "spotty" periods (1 every couple of months). Also, in some women with PCOS they simply cease having a menses at all.
- *Dysmennorrhoea*
- *Oligomennorrhoea*
- *Hirsutism:* Excessive body hair. In women with PCOS dark, coarse hair will appear on the face, neck, chest, arms, and in between the legs
- *Weight Problems:* Depending on the woman, there could be a decrease of weight or a rapid fluctuation of weight that settles around the stomach that will lead to morbid obesity.
- *Acne:* Because women with PCOS are producing more male hormone, that produces more sebum (skin oils and old tissue) and causes blocked pores and more acne around the jawline, arms and chest.
- *Alopecia or Female Pattern Baldness:* This is caused by the increase of male hormone in the women's body. Thinning or loss of hair is usually contained to top of the scalp, but in severe cases loss of hair in front or on the hairline has been documented.
- *Dirty Skin" or Acanthosis Nigricans:* This condition causes light brown to black rough patches around the neck and under arms.
- *Migraines:* Severe headaches that cause light sensitivity, nausea and dizziness.

Rotterdam Criteria

- Oligoovulation /anovulation

- Clinical/biochemical evidence of hyperandrogenism
- Polycystic ovaries in USG

How can it be Managed

- *Lifestyle Modification:* Exercise (Yoga) and Low Carbohydrate Diet
- *Medications:* drugs like Oral contraceptives, Cyclic progesterin, Clomiphene citrate, Spironolactone, Ketoconazole, Metformin can be prescribed by your doctor
- *Surgical Management:* Ovarian drilling (laproscopic electrocaterization of ovary).

Home Remedies for pcos

Cinnamon: Add 1 teaspoon of cinnamon to glass of hot water and drink it daily until you find best results.

Flax Seeds: Add 1 teaspoon of cinnamon to glass of hot water and drink it daily until you are satisfied with results. it decreases androgen levels

Spearmint Tea: Spearmint tea can also help deal with PCOS due to its anti- androgenic properties. A study published in the journal *Phytotherapy Research* found that drinking spearmint tea can help reduce hirsutism, or excess body hair, by reducing free and total testosterone levels and increasing luteinizing hormone (LH) and follicle-stimulating hormone (FSH) levels.

1. Boil one cup of water in a pan.
2. Add one teaspoon of dried spearmint leaves.
3. Let it simmer for five to 10 minutes.
4. Strain and drink this tea twice daily for a few weeks.

Apple Cider Vinegar

Apple cider vinegar is also beneficial for dealing with PCOS because it helps control blood sugar and keeps your body from producing too much insulin. Less insulin means less testosterone. Plus, it will help you lose weight and improve your overall health.

1. Mix two teaspoons of raw, unfiltered apple cider vinegar in a glass of water.
2. Drink it daily in the morning and before meals. Continue for several weeks or until you see improvement.

Fenugreek

Fenugreek promotes glucose metabolism in the

body and improves insulin resistance. This in turn helps balance your hormones. It may also help lower cholesterol, aid weight loss and promote healthy heart functioning.

- Soak three teaspoons of fenugreek seeds in water for six to eight hours. Take one teaspoon of the soaked seeds along with some honey in the morning on an empty stomach. Also take one teaspoon of the seeds about 10 minutes prior to lunch and one teaspoon prior to dinner. Continue this treatment daily for a few weeks or until you see improvement.
- You can also include fenugreek seeds and leaves in your regular diet.

Saw Palmetto

This herb acts as an anti-androgen, blocks 5-alpha-reductase activity and reduces the conversion of the testosterone into a more active form called dihydrotestosterone (DHT). This in turn may help prevent hirsutism or excessive hairiness in women with PCOS. It also helps thinning hair grow back.

Naturopaths often suggest this herb for the treatment of PCOS because it helps correct the hormonal imbalance.

Take 320 mg of standardized saw palmetto extract daily for a few months. If you are taking a liquid extract, take one teaspoon per day.

Note: Make sure to consult a licensed naturopathic physician before taking this or any other herbal remedy for PCOS to ensure safe and effective use of the herbs.

Fish Oil: Being loaded with omega-3 fatty acids, fish oil helps reduce androgen and improve insulin sensitivity. A study published in the *American Journal of Clinical Nutrition* indicates that omega-3 fatty acids can improve the symptoms of PCOS by balancing androgen levels.

Licorice: Italian researchers have found that licorice root can help reduce serum testosterone in women with PCOS. The researchers believe that the glycyrrhizin in this herb inhibits an enzyme that is required for testosterone production. Licorice can also be used as an adjuvant therapy for hirsutism.

Plus, licorice root promotes ovulation and aids liver detoxification. The liver removes toxins and excess hormones and thus helps with hormonal balance.

- Add one teaspoon of dried licorice root to a cup of boiling water. Let it simmer for about 10 minutes and then strain it. Drink this tea two or three times daily for a few weeks.

- Alternatively, you can take this herb in supplement form. You can take one-quarter to one-half teaspoon of licorice tincture two or three times a day for a few weeks. Make sure to consult your doctor to find out the proper dosage for your case.

Additional Tips

- Keep your weight in check as it will help reduce the level of male hormones in your body. Losing just 10 percent of your body weight can help bring your periods back to normal.
- Engage in regular exercise to help control your weight and also regulate insulin.
- Incorporate more fiber-rich foods like whole-grain products in your diet.
- Increase your dietary intake of B vitamins, especially vitamins B2, B3, B5 and B6, to help reduce PCOS symptoms.
- Quit smoking; women who smoke have been found to have higher androgen levels.
- Avoid the use of plastics in food consumption,

preparation and storage.

- Do not drink water from a plastic container.
- Take prescribed birth control pills after consulting a gynecologist.
- Acupuncture therapy has also been found to be beneficial for improving hormone levels.

Resources

1. <http://www.ncbi.nlm.nih.gov/pubmed/19567518>
2. <http://www.ajog.org/article/S0002-9378%2814%2900446-3/abstract>
3. <http://www.fertstert.org/article/S0015-0282%2806%2904555-9/abstract>
4. <http://www.sciencedirect.com/science/article/pii/S0039128X04001783>
5. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2752973/>
6. <http://onlinelibrary.wiley.com/doi/10.1002/ptr.2900/abstract>.

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