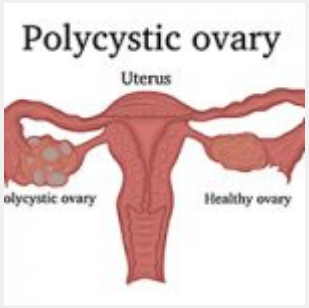
Natural treatment of PCOS



Polycystic ovarian syndrome (PCOS) affects 6.5 to 8% of American women—worldwide it's estimated that 116 million women suffer from it. Its symptoms range from irregular periods and difficulty getting pregnant, to excess body hair, acne, and male-pattern hair loss; PCOS is often accompanied by weight gain, insulin resistance and Type 2 diabetes.

The diagnosis is made after a constellation of these symptoms prompts hormone testing and pelvic ultrasound. Blood tests reveal high levels of androgens like testosterone and DHEA sulfate, and an abnormal LH/FSH ratio. Imaging reveals multiple follicular cysts in the ovaries.

Standard treatments include oral contraceptive pills and the diabetes drug metformin. While these help to alleviate the condition, there's a lot more that can be done.

First, it's imperative to undertake a low-carbohydrate diet. In a pilot study, a low-carb ketogenic diet led to significant improvement in weight, percent free testosterone, LH/FSH ratio, and fasting insulin in women with obesity and PCOS over a 24 week period.

Then there are the supplements. In a twelve week trial of PCOS patients using 500 mg of quercetin twice daily, improvements were seen in insulin sensitivity, testosterone, and LH.

Resveratrol is another promising nutrient for PCOS. 1500 mg of trans resveratrol was shown to lower testosterone by 23%. By contrast, 6 months of metformin only lowered testosterone by 8%. Resveratrol lowered DHEAS by 22% and decreased fasting insulin levels by 32%.

Berberine, shown in some studies to be comparable to metformin in blood sugar lowering effects, has also been explored as a treatment for PCOS. A Chinese study demonstrated benefits equivalent to metformin in PCOS, and more clinical trials are underway.

Inositol is probably the best studied nutrient for treatment of PCOS. It's a B vitamin, harmless even at high doses, which is fortunate, since 4 grams of inositol have been used in studies evaluating its effect on fertility, androgen levels, insulin response and weight gain. Four grams daily would entail swallowing a lot of pills, so I generally suggest dissolving a level teaspoon of powdered inositol in an 8 oz. glass of cold water daily—it's slightly sweet so it's well-tolerated. In a double-blind placebo trial, Costantino et al showed that myo-inositol (4 g/day) decreased insulin, triglycerides, testosterone, and blood pressure in women with PCOS.

Since vitamin D plays a role both in glucose homeostasis as well as ovarian function, its inclusion in a PCOS supplement program is imperative. Indeed, it's

estimated that 85% of women with PCOS are deficient in D.

Other nutrients that have been proposed for PCOS include chromium, zinc, magnesium, n-acetylcysteine, and cinnamon. Keep in mind that if you're taking metformin, you need to take extra B12.

Much has been made of the role of exercise in PCOS. Exercise helps with insulin resistance, and combined with a low-carb diet, can counter weight gain. But care must be taken with strength training because of the tendency of PCOS women to bulk up with resistance exercise due to their high levels of androgens. A program emphasizing mostly aerobic exercise, with occasional high-rep/low-weight strength routines, is preferable.

