

## Management of PCOS Polycystic Ovary Syndrome

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### PCOS

To be diagnosed with PCOS, a woman must meet 2 of these 3 criteria:

- Irregular periods, or periods that are more than 35 days apart. The medical term for this is oligomenorrhea.
- Either elevated androgens (that hormones like testosterone, DHEA, and androstenedione), or symptoms of high androgens.
- Ultrasound evidence of ovaries with cysts on them.

The hormonal signature of PCOS is:

- **High luteinizing hormone (LH):** LH is a brain hormone that tells the ovaries to make estrogen. When estrogen is low, LH is high, and vice versa. So low estrogen should trigger the release of LH, and in turn, LH should trigger a release of more estrogen. This cycle is broken in women with PCOS.
- **Decreased SHBG (sex hormone binding globulin):** In the blood, estrogen, testosterone and progesterone don't float around by themselves. They need a carrier to take them around. That carrier is a protein called SHBG. It's like a person in a taxi. The person is the hormone, and the taxi is SHBG. As a result of lower SHBG, it makes testosterone higher in women, because more of the testosterone is free.
- **Low progesterone:** The hormone that is dominant in the second part of the menstrual cycle.
- **High cortisol:** The stress hormone.

One study [1] found that there is more subclinical hypothyroidism in women with PCOS compared to women with the same weight, but without PCOS.

Another study [2] found that the fat cells of women with PCOS are 25% larger of women without PCOS, but of the same weight.

According to one study [3], obese women with PCOS are 400% - 2900% more likely to have sleep apnea compared to women of the same weight and body fat percentage, but without PCOS.

This does not apply to lean women with PCOS.

Women with PCOS have a higher risk of heart disease, compared with women without PCOS, according to several studies [4-6].

More women with PCOS have depression, compared to women without PCOS, mostly due to the infertility [7].

34 - 57% of women with PCOS have anxiety [8].

### Treatment:

- The first order of business is the most obvious: diet and exercise.
- One study [9] analyzed different diets, and found that one that has 50% low-glycemic carbohydrates, 30% fat, and 20% protein seems to have the best effects on PCOS.
- As far as drugs are concerned, the most frequently prescribed drugs for PCOS are metformin and thiazolidinediones.
- As far as natural supplements are concerned, one of the most proven is myo-inositol, as well as glucomannan.

So now you just saw the clinical side of PCOS, but how does it affect them in real life? What we hear from our clients who have PCOS is that they:

- Don't feel like going out, because they think they don't look good. They don't look feminine.
- Feel like prisoners within their own body
- Have poor body images.

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