

What is PCOS?

Polycystic ovarian syndrome, or PCOS, is a hormone (endocrine) disorder that affects women. It is estimated to affect 5-10% of all women and is the leading cause of infertilityⁱ. Women with PCOS usually do not menstruate regularly, struggle with their weight and have an extremely high risk of developing diabetes and heart disease. Image 1ⁱⁱ shows the progression of PCOS with age, if left untreated.

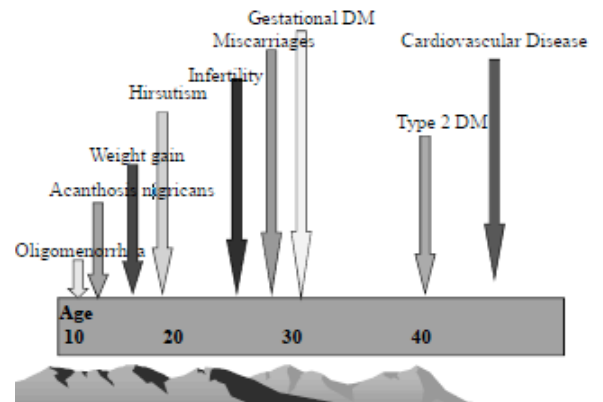


Image 1: The progression of PCOS with age

What causes PCOS?

At the moment, no one is sure of the exact causes of PCOS. Women with PCOS produce excessive amounts of testosterone, a male hormone, which is then responsible for most of the signs and symptoms of PCOSⁱⁱⁱ. Recent research has not been able to discover why high levels of these hormones are produced initially.

It is very likely that genes play a role in the development of PCOS. If you have a first-degree relative with PCOS, you are 5-6 times more likely to develop PCOS than if you don't have a first-degree relative with PCOSⁱⁱⁱ

What are the symptoms of PCOS?

There are three main criteria that are used to diagnose PCOS.

The first is irregular periods, or oligomenorrhea, meaning that ovulation and menstruation take place less than once every 35 days, or sometimes not at all.ⁱⁱⁱ

The second criteria is excessive levels of male hormones. High levels of these hormones will either show up in a blood test or will be obvious based on the physical symptoms that they cause. These physical symptoms are usually some combination of abnormal and/or heavy hair growth (hirsutism), facial acne and male-pattern-type baldness (alopecia)ⁱ.

The last criteria used to diagnose PCOS is an ultrasound showing cysts on the ovaries. Women without PCOS can also have cysts on their ovaries, which is why it is important to consider all the criteria when making a diagnosis. To diagnose PCOS, at least 2 out of the 3 criteria must be present and any other causes must be ruled outⁱ.

In addition to the obesity and infertility that is commonly seen in PCOS, other symptoms include oily skin, dandruff, skin discolorations (Acanthosis Nigricans - check the back of the neck, under the hairline), high cholesterol levels, elevated blood pressure and insulin resistance.

How is PCOS treated?

The treatments of PCOS can fall into four categories: treatments to lower and manage insulin levels; treatments to restore fertility; treatments to reduce hirsutism and acne; and treatments to restore regular menstruation. Each category has different drugs that are used to treat the symptoms and their causes. In addition to medical drug therapy, PCOS is also treated with lifestyle changes, including diet and exercise.

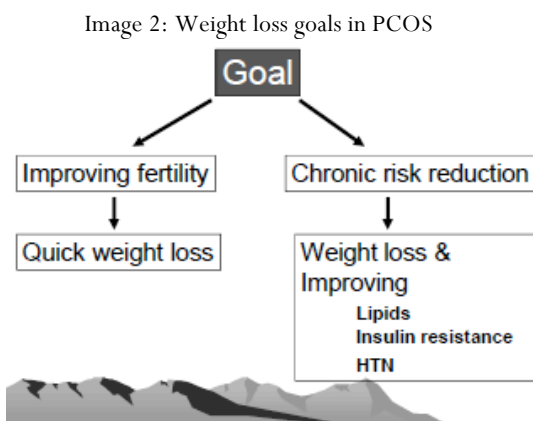
Research has shown that the very best diet for managing PCOS is one that is lower in calories with low glycemic index foods^{iv}.

The glycemic index (GI) measures how quickly the foods that you eat are converted into sugar and released into the blood. Foods with a low GI are converted into sugar and released into the blood much more slowly than foods with a high GI, usually because low GI foods are much higher in fibre. For more information on the glycemic index, and to see the GI values of hundreds of foods, visit www.glycemicindex.com. Remember, you want to choose foods with low GI.

Here are some general nutrition guidelines for healthy eating with PCOSⁱⁱ:

- Eliminate refined flours, sugars, sodas and sweetened beverages
- Eliminate artificial sweeteners
- Avoid highly processed foods containing saturated, trans or hydrogenated fats
- Limit alcohol to 3 drinks per week
- Limit caffeine

Don't forget to include regular physical activity to help control your weight and other PCOS-related symptoms.



In addition to changes in the diet, losing weight is also a treatment for PCOS. The end goal can help determine the amount and the rate of weight loss that is necessary. Image 2ⁱⁱ illustrates the different weight loss strategies to fit goals. Weight loss studies in PCOS have shown that a loss of just 5% of body weight can decrease hirsutism and acneⁱⁱⁱ, restore ovulation and reproductive function,^{iv} reduce the rate of miscarriagesⁱⁱⁱ, improve glucose tolerance/reduce insulin resistance^{iv} and decrease risk of cardiovascular disease^{iv}. A goal of 5-10% weight loss can help protect against the development of diabetes and improve levels of cholesterol and fats in the bloodⁱⁱⁱ.

To make an appointment with Helene: 2 offices in downtown Ottawa

1) O'Connor Health Group #404 - 267 O'Connor Street, Ottawa, Ontario

Ph 613-288-0055 fax 613-567-3917

2) University of Ottawa Health Services # 202-100 Marie Curie Ottawa, Ontario K1N 6N5

Ph 613-564-3950 fax 613-564-6627

www.hcnutrition.com

hcnutrition@rogers.com

Property:HC Nutrition Inc Consulting & Wellness –prepared with help of Emilie Zito, McGill Dietetic Intern December 2008

Revised HC June 2011

ⁱ Sanfilippo, J.S., MD, MBA, EIC (2008) Polycystic Ovarian Syndrome in the Adolescent : The Focus is New and Exciting, J Pediatr Adolesc Gynecol 21:113–114

ⁱⁱ Sidika E. Kasim-Karakas, M.D Nutritional Management of Polycystic Ovary Syndrome, ADA Conference, Chicago 9/8/2008

ⁱⁱⁱ Homburg, R., FRCOG (2008) Polycystic ovary syndrome, Best Practice & Research Clinical Obstetrics and Gynaecology Vol. 22, No. 2, pp. 261–274,

^{iv} Farshchi, H., Rane, A., Love, A. and Kennedy, R. L.(2007)'Diet and nutrition in polycystic ovary syndrome (PCOS): Pointers for nutritional management',Journal of Obstetrics and Gynaecology,27:8,762 — 773