



Carol Ann
Brannon MS, RD, LD
Your Nutrition Navigator

Carol Ann Brannon, MS, RD, LD
Nutrition Therapist, Food Coach, Author, Speaker
Telephone: 404-409-1747
Fax: 404-601-6018

Office:
10475 Medlock Bridge Road
Ivy Falls Office Complex - Suite 205
Johns Creek GA 30097

PCOS: The Perfect Hormonal Storm

By Carol Ann Brannon, MS, RD, LD

Chances are you may never have heard of polycystic ovary syndrome (PCOS), but chances are someone you know or love has PCOS. In the US an estimated 5 to 10 percent of women (about 10 million) have PCOS. Although it was first discovered in 1935, PCOS was then considered an obscure reproductive disorder. However, today it is the most common female endocrine disorder, often resulting in infertility.

PCOS is “the perfect hormonal storm.” Insulin resistance appears to be at the center of the hormonal imbalances and metabolic changes of PCOS. Insulin is the hormone responsible for blood glucose (sugar) regulation. The majority of women with PCOS have some degree of insulin resistance resulting in elevated insulin levels that trigger an imbalance in reproductive hormones. The exact cause of insulin resistance is unknown, but genetics, diet, and lifestyle play a role. There appears to be a strong link between excess body fat, inactivity, and PCOS.

PCOS affects women at all stages of their lives. Clinical onset usually occurs at puberty. The premature onset of menstruation (before 8 years of age) is linked to PCOS. Teenagers experience overgrowth of facial hair, acne, irregular menses, weight gain or increase in body fat due to insulin resistance. Young women with PCOS have an increased risk of developing an eating disorder, particularly binge eating and fasting, in an effort to lose weight. Women in their reproductive years may experience infertility, miscarriages, and have a higher prevalence of gestational diabetes or impaired glucose tolerance during pregnancy. Later in life, women are at higher risk of developing type 2 diabetes, heart disease, and possibly cancer. Depression is not uncommon in women with PCOS.

Diet Therapy is without question the most important and effective treatment component, along with exercise and medications. The typical western diet (high in fat, refined carbohydrates, and low in fiber) contributes to insulin resistance. Losing weight, even as little as 5 percent of current body weight, and diet modification can lower

insulin levels, blood lipid levels, help to balance reproductive hormones and restore regular menstruation and ovulation.

There is strong agreement that a lower calorie diet that promotes weight loss is beneficial for overweight and obese women. Modifying and balancing intake of carbohydrates, protein, and fat can also improve insulin resistance. It is important that a teen or woman with PCOS be carbohydrate-selective. The best carbohydrates are whole grains, high in fiber, and plant-based for improved insulin sensitivity and to facilitate weight loss.

In addition, a diet rich in omega-3 fatty acids (nuts, seeds, fish, canola oil) and monounsaturated fats (olive oil) can improve insulin sensitivity and promote heart health. In contrast, dietary saturated fats increase insulin resistance and heart disease.

Fish Oil Supplements, which contain the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), have been found effective in improving glucose clearance, insulin sensitivity, and protecting against heart disease. Fish oil supplements may have a therapeutic role in PCOS treatment; however, currently there are no clinical studies to support a specific dietary recommendation. Before taking any dietary supplement one should check with their physician to ensure no adverse reactions with other medications and for dosage guidance.

Summary: PCOS is a unique chronic endocrine disorder that is managed by diet, exercise, and medications (oral contraceptives, biguanides, etc). Insulin resistance makes losing weight extremely challenging, but not impossible. Many women with PCOS find working closely with a Registered Dietitian, one knowledgeable about PCOS, invaluable.

Dietary Guidelines for Women with PCOS

- Focus on whole foods and fiber-rich foods: whole grains, vegetables, fruits
- Balance intake of carbohydrates throughout the day
- Consume carbohydrate foods with protein and/or low-fat foods
- Consume at least 40 grams of carbohydrates daily to prevent ketosis
- Choose foods containing omega-3 fatty acids (fish, such as salmon and tuna, flaxseed, nuts, and seeds) and monounsaturated fats (olive oil, canola oil, nuts)
- Avoid refined carbohydrates, saturated fats, and processed foods
- Pay attention to portions: consume less calories than you expend to reduce weight