



PCOS - A LEADING CAUSE OF INFERTILITY AND
A HIGH RISK FACTOR FOR CORONARY HEART DISEASE
From a Series on Insulin Resistance and its
Links to Serious Health Conditions

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Polycystic Ovarian Syndrome (PCOS) is the most common endocrine (hormonal) condition and may affect up to 20% of women of reproductive age in America¹. The disorder, which is a leading cause of infertility, is also known as polycystic ovaries, Sclerocystic Ovarian Disease, Stein-Leventhal Syndrome and Polycystic Ovarian Disease (PCOD).

The symptoms of PCOS can vary widely from woman to woman. In addition to infertility, these symptoms include: irregular or completely absent periods, ovarian cysts, hirsutism (excessive facial or body hair), Alopecia (male pattern hair loss), obesity, acne, skin tags, Acanthosis Nigricans (brown skin patches), high cholesterol levels, exhaustion or lack of mental alertness, decreased sex drive and excess male hormones.

You are far more likely to develop PCOS if you suffer from Insulin Resistance. This condition, which is the underlying cause of PCOS, prevents the efficient conversion of food into energy because the number of insulin receptor sites or “doorways” on your cell walls has been vastly reduced. It’s been estimated that a typical healthy person has 20,000 insulin receptor sites per cell, while the average overweight individual can have as few as 5,000.

Insulin acts a “key in a lock”, allowing glucose to pass through the cell wall into the cell to be converted to energy. If you have too few receptor sites, glucose bounces off the cell wall instead of passing through the insulin “doorway.” Glucose remains in the blood stream, causing elevated levels of blood sugar, which are sent to the liver. Once there, the sugar is converted to fat and stored via the blood stream throughout the body. The end result can be weight gain or obesity, a root cause of PCOS.

Excess insulin caused by Insulin Resistance creates a decrease in an important binding protein called sex hormone binding globulin (SHBG) and this reduction results in an increase in testosterone, a predominantly male hormone. Additionally, the excess insulin stimulates the ovaries to produce large amounts of testosterone, which may prevent the ovaries from releasing an egg each month, thus causing infertility.

Because the symptoms vary so much and not all women display all the symptoms, doctors very often misdiagnose PCOS. This situation became a critical concern after a University of Pittsburgh study² conducted in 2000 found that women suffering from PCOS have a higher risk of coronary heart disease.

Researchers discovered a link between PCOS and other metabolic conditions such as high levels of obesity as well as an increase in LDL (the “bad” cholesterol) and high blood pressure – all risk factors for cardiovascular disorders. Recent research also reveals the relationship between PCOS and Non-Alcoholic Fatty Liver Disease (NAFLD).

The unbalanced glucose and insulin levels caused by Insulin Resistance can pose other major problems. They may lay the foundation for Type II Diabetes by raising blood sugar to dangerous levels. Recent research has also shown that excess insulin and glucose can prompt abnormal cell growth, implicating them as the cause of certain cancers.

The Pittsburgh University study also found an increased association between PCOS and atherosclerosis, which occurs when fatty deposits called plaque cling to the interior walls of the arteries, leading to blockages that can cause heart attacks or stroke.³ Not only do PCOS sufferers have higher rates of plaque buildup but those over 45 also have thicker deposits of plaque.

In addition, the imbalance of glucose and insulin levels caused in women with PCOS leads to a lowering of “good” HDL cholesterol and an increase in the level of triglycerides, which are fat-storing substances carried through the blood stream to the tissues. These factors increase the risk of heart attacks and stroke.

All these recent findings have substantially raised the bar on the seriousness of PCOS, making it even more important that physicians correctly diagnose this condition and treat it appropriately.

At the present time, there are no cures for PCOS – even removal of the ovaries will not completely eliminate this syndrome. But there are ways to deal with the underlying issue of Insulin Resistance. Addressing Insulin Resistance and PCOS require lowering one’s insulin levels, improving hormone imbalances and increasing SHBG through weight loss, nutrient supplement and exercise.

Research has shown that a rapid weight loss program, whether brought about by strenuous dieting or excessive exercise programs or drugs, will simply not work as a long term solution. Almost invariably, people who lose weight under these regimes will eventually gain back everything they’ve lost, plus additional weight, thus compounding the problem rather than solving it.

Solely changing your diet will not reverse Insulin Resistance. From my work in the public health sector I saw first-hand the spiraling problem of obesity. And in my clinical practice, I became increasingly involved in addressing my patients’ weight loss concerns. These experiences led directly to my research in the fields of Insulin Resistance and PCOS.

I realized that a systematic approach would be needed to address all the components of these conditions. Simply put, taking a pill every day won’t begin to effect the changes that are necessary if you hope to correct these disorders.

Clearly, losing weight alone will not reverse either PCOS or Insulin Resistance. My personal research had shown that no one had yet developed and offered a complete system to patients suffering from Insulin Resistance or PCOS. This omission led directly to my creation of a multi-layered approach to addressing Insulin Resistance and balancing the hormones that cause PCOS symptoms. I wanted it to be a complete system, including nutraceuticals (disease-specific vitamins, minerals and herbs) as well as a realistic exercise program and nutritional guidance.

The nutrients need to be used in therapeutic doses in order to effect substantial metabolic change. The exercise and nutritional programs are not only necessary components but are also realistic and easy-to-follow. The underlying theories are based on well-recognized and accepted science that re-programs neural networks and replaces old, sedentary habits with gradual and permanent lifestyle changes.

While creating a system for my patients that included all of those components, I was also determined to provide support and outreach, which, research has shown, are important psychological tools for life-changing transitions. It is this systematic approach that enables you to make permanent changes that will have a dramatically beneficial, long term effect on your health.

Please, begin today to address these conditions. Your health matters, to you and your loved ones. Put yourself back on the path to optimum fitness and well being.