

Insulin resistance - the Root Cause of PCOS

Are you one of the millions of women with PCOS who have failed to reverse the symptoms of this condition no matter what you've tried? It may not be due to lack of willpower. **Instead, you could be Insulin Resistant, the root cause of PCOS.**

Scientists at the National Institutes of Health, Stanford University and other research centers have clearly identified the existence and effects of Insulin resistance, a biochemical condition that causes excessive [weight gain and PCOS](#), which is also known as polycystic ovaries. If you are among the 65% of the overweight population with Insulin resistance, your ability to reverse your PCOS and lose weight may not have been within your control - until now.

This breakthrough in understanding the body's biochemistry remains relatively unknown, even though Insulin resistance has reached epidemic proportions. Your doctor may not have explained the crucial link between Insulin resistance and PCOS. **You need to understand this link in order to reverse your condition.**

PCOS AND INSULIN RESISTANCE

PCOS (Polycystic Ovarian Syndrome) is a hormonal imbalance linked to the way the body processes insulin after it has been produced by the pancreas to regulate blood sugar (glucose).

The [underlying cause of PCOS, Insulin resistance](#), has many factors that contribute to its presence in the body. In essence, our environment and lifestyles have evolved too rapidly for our bodies to keep pace. We are still genetically "wired" to thrive on the entrenched habits of our ancestors, who consumed different, nutrient-rich foods, a diet low in carbohydrates and who sustained greater levels of movement and exercise. Some people may also have a genetic predisposition to Insulin resistance, while others develop the condition through high stress and unhealthy lifestyles.

INSULIN RESISTANCE NEGATIVELY AFFECTS GLUCOSE AND INSULIN LEVELS

Over time, the above factors have damaged the complex ability of the body's cells to properly utilize insulin to convert glucose to energy. This process creates insulin resistance, which causes PCOS in two distinct ways.

First, insulin resistance vastly reduces the number of insulin receptor sites or doorways on the walls of your cells. The average healthy person has some 20,000 receptor sites per cell, while the average overweight individual with PCOS can have as few as 5,000. If you have too few receptor sites, glucose bounces off the cell wall, instead of passing through the insulin door to be burned as energy. With the cell door almost closed to it, glucose remains in the blood stream, causing elevated levels of blood sugar, which are sent to the liver. Once there, the sugar is converted into fat and stored via the blood stream throughout the body. This process can lead to weight gain and obesity, key factors in creating PCOS.

The second way that insulin resistance causes PCOS is by raising insulin levels in the blood stream. Unhealthy lifestyles and genetic conditions cause the pancreas to overproduce insulin. The cell is, in turn, overwhelmed by this excess insulin and protects itself by reducing the number of its insulin receptor sites. This process leaves too few sites for insulin to carry out its normal function, which is to attach itself to the cell wall and act as a key in a lock allowing glucose to pass through the cell wall and be converted into energy. The vastly-reduced number of receptor sites in Insulin Resistant people causes an excess of insulin "rejected" by the cell to free-float in

the blood stream, creating unbalanced hormone levels in PCOS sufferers.

Excess insulin stimulates the ovaries to produce large amounts of the male hormone testosterone, which may prevent the ovaries from releasing an egg each month, thus [causing infertility](#). High levels of insulin also increase the conversion of androgens (male hormones) to estrogens (female hormones), upsetting a delicate balance between the two and having a direct effect on weight gain and the formation of cystic follicles or cysts in the ovary.

[Click here to read about How Insulin resistance and PCOS Underlie Weight Gain](#)