

# Insulin Resistance and How it Affects Fertility

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For a moment, let's imagine your hormonal system as an intricate series of scales. In order for everything to remain in balance, each of those hormones needs to maintain a level existence – never falling outside a pre-determined ideal. When just one of those hormones increases or decreases below that ideal, each arm of the scale tips in reaction – the entire system falling out of balance.

## Hormone Balancing Act?

Insulin is one of the hormones vital to that scale system, produced in the pancreas and working to help the body process glucose into energy. With time, and a variety of medical conditions, the body can become resistant to insulin.

When that happens, the pancreas works to overcompensate – striving to produce enough insulin to continue converting that glucose as necessary. Unfortunately, that influx of insulin throws the entire scale system off, even as blood sugar levels begin to skyrocket. The excess insulin eventually leads to an increase in testosterone levels as the body strives to right itself, and the resulting testosterone can inhibit fertility and completely halt ovulation.

There are several other hormones that are equally impacted when insulin levels rise. Follicle Stimulating Hormones (FSH) and Luteinizing Hormones (LH) cease being emitted at optimal levels, and follicular development is hindered as a result. Estrogen and progesterone fall equally out of balance. When ovulation does occur, egg quality is frequently low, further inhibiting the possibility of conception.

Insulin resistance is often witnessed in women dealing with Polycystic Ovarian Syndrome (PCOS). This condition also typically leads to irregular or absent periods, increased facial hair growth, excessive weight gain, and the appearance of multiple small cysts on the ovaries. Women with PCOS tend

to have an extremely difficult time achieving pregnancy, and it is considered to be the number 1 hormone condition women are facing today. There are other issues which can lead to insulin resistance as well. With age, it is common for insulin resistance to become more of an issue for both men and women. Overeating, consuming junk food and avoiding exercise can all contribute to further increasing the problem. Those high insulin levels are then responsible for throwing off the entire hormonal system, making it much more difficult to rebalance the scales.

## **Ways to Get Insulin Resistance Under Control**

Medical treatments for insulin resistance include drugs like Metformin, which is used typically to treat type 2 diabetes, but is also a popular drug for PCOS. Many doctors and natural health care practitioners will also recommend dietary and lifestyle changes, however, as these do seem to make a difference in getting insulin levels under control.

Weight loss seems to improve issues with insulin resistance, but because the condition makes it difficult to lose weight – embarking upon a weight loss program can often be a frustrating process for women struggling to balance those hormonal scales.

If you are hoping to improve your insulin levels through diet, however, you should start by learning more about the glycemic index. Foods high on the glycemic index should be avoided, as they are routinely responsible for increasing blood glucose levels. Some of these foods can include unrefined sugars, white bread, and highly processed treats like doughnuts or corn chips. Carbohydrates are often culprits to be avoided, with the exception of healthy carbs such as fruits and vegetables. Try sticking to lean meats and high-fiber grains. Leafy green vegetables are also beneficial, and meals should include a reasonable amount of healthy fats such as avocados or salmon.

Studies have shown that improvements in diet and exercise can reduce the development of type 2 diabetes by 58 percent, thereby also improving issues with insulin resistance. Women with PCOS who are able to lose weight often also report a return of their periods and more regular ovulatory patterns. However, this can sometimes be a difficult obstacle to conquer, and many women get frustrated along the way. If you are thinking about taking on a diet and exercise plan to get your insulin resistance under control, consider consulting first with a naturopath or nutritionist who can help you to formulate

a menu and set realistic expectations.

Be good to yourself throughout this process. A difference can be made, but it takes time and perseverance to get there. Remember to engage in wellness activities as well, for when the stress gets to be too much.

## **References:**

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