

Insulin resistance

With the dramatic rise of Type 2 diabetes in the US, there's been a lot of talk recently about "insulin resistance", which can be a precursor to the disease. That's why I wanted to provide you with an easy-to-understand Q&A article that defines what it is and how it develops. Armed with this information, you will hopefully be able to adopt some simple lifestyle modifications that will prevent its occurrence and ward off Type 2 diabetes. JP

What is insulin resistance?

Insulin resistance occurs when your body stops responding to insulin. Insulin resistance is considered a "pre-diabetic" state which, if uncorrected will likely lead to Type 2 diabetes.

Is insulin resistance common?

Unfortunately, yes. And the rates of insulin resistance continue to rise, including adults and children. It is estimated that about 1/3 of Americans are insulin resistant.

Is insulin resistance bad for health?

Absolutely. At the very least, insulin resistance increases the risk of heart disease as well as the risk of death.

What is insulin?

Insulin is a hormone made by your pancreas that takes sugar out of your blood and puts it into your cells. Although insulin is often thought of as "the bad guy" these days, it is important to real-

ize that we would die without insulin. Here's a brief look at how insulin works: After you eat something, particularly carbohydrates, these foods are digested and sugars enter your bloodstream. In response, your insulin levels will rise (all foods raise insulin levels, but carbohydrates raise them more than proteins and fats, which is why we usually focus on carbs when discussing this issue). Insulin takes the sugars, brings them to the cells of your body (say, for example, a muscle cell), unlocks the door to the cell, and escorts the sugar inside and thus out of the bloodstream. Without insulin, blood sugar levels would remain very high, which is damaging to our health.

Why does insulin resistance occur?

To put it briefly, it occurs because of poor lifestyle choices. Over-consumption of bad foods, particularly low-quality carbs and sugary foods, along with lack of exercise, are the primary culprits. Excess stress and poor sleep habits also contribute. As a result, your body begins to ignore insulin's message.

Is insulin resistance related to being overweight?

In the vast majority of cases, yes. The fatter we get, the less our bodies respond to insulin. As we become more and more insulin resistant, we store even more fat. So a vicious cycle is set up between fat gain and increas-

DR. PROODIAN'S PRESS



By: Dr. James Proodian

ing insulin resistance.

What is Syndrome X, and how is it related to insulin resistance?

In 1988, researchers coined the term 'Syndrome X' to describe a grouping of symptoms that seemed to occur together. These include excess fat around the midsection, high cholesterol and triglycerides, high blood pressure and, of course, insulin and blood sugar problems. It turns out that insulin resistance is at the center of all of these. Syndrome X is now also referred to as 'Metabolic Syndrome'.

How do I know if I am insulin resistant?

The most accurate way to know is to get some bloodwork done. Elevated fasting insulin levels are a major clue. You may also have high triglycerides in your blood, along with high levels of 'bad' LDL cholesterol. Levels of protective 'good' HDL cholesterol are often low (which is not desirable thing), and blood sugar levels may show signs of creeping too high.

Can I tell by looking in the mirror if I am insulin resistant?

There are some typical physical signs of insulin resistance. The most obvious is too much fat around the midsection, which has been called the "apple" body

shape (note: too much fat elsewhere on the body is also a risk factor). Waistline measurements of over 40" for men and over 35" for women are generally considered risk factors for insulin resistance.

Skin tags have also been correlated with insulin resistance. Also, a rash-like darkening of the skin around the neck, in the armpits, and under the breasts which looks like dirt that won't wash off (technically called 'acanthosis nigricans') is another physical sign of probable insulin resistance. Excessive facial hair in females can be another sign of insulin resistance due to the interaction between insulin and androgenic hormones.

What should I do if I suspect insulin resistance?

First, get a diagnosis from a healthcare professional. This should include taking a history to explore your eating and exercise habits, symptoms (carb craving, for example), and family history. Physical examination should look for the above-noted physical characteristics. And finally, lab work should be pursued to examine your blood (and possibly saliva) for telltale signs of insulin resistance. All of this information can be put together to determine how far down the insulin resistance path you currently are. This is critical for proper treatment.

What are the saliva tests for?

Another hormone that is frequently involved in insulin resistance (and weight gain) is cortisol. Cortisol is produced by the adrenal glands (along with other important hormones such as

adrenaline and noradrenaline). With chronic stress, including nutritional or metabolic stress, the adrenal glands produce more cortisol than usual. If the stress continues for too long, your adrenal glands begin to 'burn out' and can't produce enough cortisol. Cortisol levels are best checked through saliva testing, which is easy and painless. The current health of your adrenal glands may impact your treatment regimen.

How is insulin resistance treated?

The most important treatment for insulin resistance is lifestyle modification. This must include a healthy diet and nutrition, appropriate forms of exercise, and stress management. There are specific recommendations in each of these areas, with particular attention to carbohydrate, protein and fat intake. Certain supplements can be quite helpful in treating insulin resistance and the other components of Syndrome X.



Dr. James Proodian is an author, educator, and healthcare practitioner specializing in Chiropractic Rehabilitation and other natural healing techniques. He also provides free health lectures and health screenings for companies and other organizations throughout Monmouth County. Dr. Proodian can be reached at his practice, Natural Healthcare Center, at 732-222-2219 or through his website at www.NaturalHealthcareCenter.com.