

SYNDROME X OR HYPER- INSULINAEMIA

In the last 20 years there has begun a new wave of theory and interest, a new understanding, new science and a review of old practices focused for the first time of the effects of food on the human body. In particular the ingestion of certain foods and their individual effects on hormones, the metabolism, the endocrine system (glandular system) and immune function and wellness. This is changing the way many people are thinking about diet; its effects on especially obesity and on a range of chronic and serious disease states.

Applying simple dietary rules has brought pronounced results for many people who have been trying to balance their weight, metabolism, blood sugars, cholesterol and energy for years. These dietary principles are now being linked to the majority of the biggest health challenges that now threaten people particularly those in the western world. Conditions such as kidney disease, cardiovascular disease, ageing, arthritis, chronic fatigue, diabetes, obesity and so many more and all being linked to what is served on our plate.

Metabolic syndrome is a collection of disorders that occur together and increase your risk of developing type 2 diabetes, stroke or heart disease. The causes of metabolic syndrome are complex, but there is thought to be a genetic link. Being overweight or obese and physically inactive adds to your risk.

As we get older, we tend to become less active and may gain excess weight. This weight is generally stored around the abdomen. This can lead to the body becoming resistant to the hormone insulin. This means that insulin in the body is less effective, especially in the muscles and liver.

Metabolic syndrome is sometimes called Syndrome X or Insulin Resistance Syndrome. More than 25 per cent of Australian adults have Metabolic Syndrome.

WHAT ABOUT THIS HORMONE CALLED INSULIN?

Insulin is the main hormone involved in the regulation of our blood sugar level. It is produced and secreted by the pancreas, situated in the abdomen behind the stomach. Insulin also is involved in other major functions, especially the storage of energy as fat, and how it controls how carbohydrate, fatty acids and amino acids get to the cells of the body. It also influences how the liver processes cholesterol and how the kidneys deal with fluid. Too much insulin can increase the rate that you store sugars and fats into the fat cells, it can raise blood pressure and cholesterol, and most importantly can lead to type 2 diabetes.

Whenever food is eaten and digestion commences, starches and sugars are broken down into glucose. It is then absorbed and when the blood glucose increases, insulin production increases. This forces the glucose into muscles which use it for energy for movement and brain cells which use it for thinking. If they can't use it all, it goes into the fat cells as storage. When there is too much glucose in the blood often, due to the growing number of meals including sugar or refined carbohydrate, the muscles begin to need more and more insulin to function properly. This is called Insulin Resistance.

The pancreas constantly has sugar to process and store and begins to overproduce insulin in response. Insulin has the ability to affect many other systems in our body and those with an insulin malfunction may experience being lightheaded, sleepy, lethargic, dizzy, hungry, and even experience cravings for sugar or carbohydrate due to lowered blood sugars.

With overproduction of insulin, we begin to feel the real health effects with headaches, weight gain, bloating, fluid retention, raised blood pressure and raised cholesterol, depression and chronic fatigue just to name a few.

This is where the impact of a high protein and low carbohydrate diet gains momentum. In order to reduce insulin, we must reduce the swings of blood glucose which means reducing the consumption of carbohydrate. This means increasing the amount of protein consumed. The biggest problem we face is how to properly balance this eating regime to feel satisfied and include enough fibre without increasing saturated fats or large amounts of cholesterol.

It is amazing at how quickly the body responds if given the correct diet and supplementation program it shows physically and mentally, as blood sugars stabilize and energy is available to the brain and muscle cells even after only a few days on a metabolic syndrome program.

Some of the benefits include

- Energy improvement, Less fatigue mid-morning and mid-afternoon
- Improvement in daily endurance and stamina
- Weight loss and fat loss and body tone
- Improvement of brain function, mental clarity, fogginess, memory recall.
- Reduction in sugar cravings
- Lowering blood pressure and Lowering cholesterol
- Significant reduction of inflammation in the body

One other key component of stabilizing blood sugar levels and reducing insulin resistance is that of exercise. It is important to exercise at least 4 times a week for 30 minutes or more to stimulate fat burning for all the sugar stored deep within our fat cells.

This high protein/low carbohydrate regime attempts to regulate and reverse this process – to keep blood sugar and insulin levels within normal range and thereby stimulate fat utilization. Elevated insulin also promotes the production of adverse cell messengers' chemicals called (eicosanoids) which are responsible for inflammation, blood pressure, cholesterol and a host of other negative side effects.

Eating sugar results in rapid elevation of blood sugar, the insulin is equally rapidly released. Insulin instructs the body to use glucose only as a fuel – not to touch the fat reserves. It becomes impossible to lose weight when insulin is high.

If this information is sounding like something that you are experiencing it is important to have baseline blood sugar levels fasting done and potentially 2 hour glucose insulin tolerance tests 2 hours to see just how severe your insulin issue has become. Then it is time to get to a naturopath or nutritionist who can support you in a clinical program of dietary change, supplementation and behaviour therapy.