



# Hyperinsulinemia

## Metabolic Syndrome X: Hidden Cause of Many Health Problems

Research has recently brought to light a previously hidden cause of many modern illnesses. Dubbed *metabolic syndrome X*, this condition involves excessively high levels of a hormone called insulin, a condition known as *hyperinsulinemia*.

It is well known that insulin deficiency produces a condition known as diabetes, but, in reality, very few cases of diabetes involve a lack of insulin production. Only type I diabetics (10-15% of cases) have low insulin production. In most cases of diabetes (type II), insulin is produced in excess, but isn't working due to cellular resistance. This means that type II diabetes is automatically associated with syndrome X or hyperinsulinemia.

Even if a person doesn't have diabetes (insulin resistance), high levels of insulin in the blood stream cause serious health problems. Too much insulin is also linked to high blood pressure and arteriosclerosis. Excess insulin is a bigger risk factor for cardiovascular disease than excess cholesterol. So metabolic syndrome X increases the risk of heart attack and stroke.

Hyperinsulinemia is also a major cause of obesity, because insulin causes the body to store more fat. It also disrupts sodium metabolism, so it increases water retention. By depressing neurotransmitters in the brain, it contributes to depression. In women, 75% of all cases of polycystic ovarian syndrome are related to too much insulin.

In the initial stages, producing too much insulin causes a rapid lowering of blood sugar levels, which causes hypoglycemia or low blood sugar. This increases the craving for sweets and stresses other hormone systems. It interferes with the conversion of thyroid hormones T-4 to T-3 which can result in functional hypothyroidism. Another negative effect is a rise in cortisol production from the adrenals. This reduces one's ability to cope with stress, lowers the immune response and eventually exhausts the adrenals. Excess cortisol contributes to rapid aging.

If you want to know for sure if you have syndrome X, you could have lab tests run to check your insulin levels. (Fasting levels of insulin should be below 10 units.) However, there is an easier way—measure your waist and hips. Abdominal fat is a good indicator of excess insulin production. Check your circumference at the navel and at the widest part of your hips. In men, if your waist measurement is larger than your hips, you've probably got high insulin levels. In women, the waist should be less than 80% of the hip measurement.

Hyperinsulinemia is caused by too many simple carbohydrates with too little protein. Low fat diets and diets high in saturated fats also contribute to the development of this problem. Low glycemic carbohydrates are complex carbohydrates

that trigger less insulin production. So, consuming low glycemic carbohydrates in proper balance with high quality fats and proteins is the first step to overcoming hyperinsulinemia.

Resistance exercise trains muscles to take up glucose without the need for insulin, thereby decreasing insulin requirements. After just five days of no exercise, insulin resistance increases. Thus, a program of muscle building exercise (at least three times per week) will help Syndrome X and reduce the risk of heart disease, diabetes and obesity.

Transfatty acids, found in margarine and vegetable oils, and saturated fats increase cellular resistance to insulin. Most vegetable oils are high in omega-6 fatty acids, but deficient in omega-3 fatty acids, which decrease insulin resistance. Avoid vegetable oils and hydrogenated fats (fries, chips, pastries, bagels, etc.) and use high quality fats like olive oil, butter and flax seed oil. It is also helpful to supplement the diet with CLA and/or Omega 3 Hi EPA.

There are several minerals that help with hyperinsulinemia and insulin resistance. GTF Chromium and zinc are very important. Both are found in the formula Target P-14, which aids the pancreas and balances blood sugar levels. Magnesium is also important in metabolic syndrome X.

Another great herbal formula for syndrome X is HY-C. This Chinese formula is indicated where there is dryness (mouth, eyes, skin, etc.) coupled with frequent thirst and urination. It helps both hyperinsulinemia and the early stages of diabetes.

Blood Sugar Formula comes from India, the country where the first incidences of diabetes were recorded. Like HY-C, it balances blood sugar levels and is helpful for both hyperinsulinemia and insulin resistant diabetes.

Where hypoglycemia (low blood sugar) is a problem, licorice root and HY-A can be helpful. These supplements balance blood sugar. Both stevia and licorice root are helpful for overcoming sugar cravings.

Balancing the diet, resistance exercise, and some well-chosen herbs and supplements can reduce insulin levels, reduce the risk of cardiovascular disease, aid in weight loss, and prevent diabetes. Consult a qualified herb specialist or natural health care provider to assist in developing the program that is right for you.

### Selected References

*The Anti-Aging Zone* by Barry Sears, Ph.D.

*Syndrome X: Overcoming the Silent Killer That Can Give You a Heart Attack* by Gerald M. Reaven, et. al.

*The Insulin-Resistance Diet: How to Turn Off Your Fat-Making Machine* by Cheryl R. Hart, M.D., and Marry Kay Grossman, R.D.

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