Role of Insulin in Reduction of Body Fat / Weight Loss

Lowering Insulin is known to help over weight persons to release weight / body fat by reducing hunger (1).

You may be overweight (have greater than normal body fat composition) because your pancreas releases too much insulin, especially if you store your fat primarily in your abdomen. When you eat, your blood sugar level rises. The higher the blood sugar levels rise, the more insulin is released by your pancreas. Insulin makes you fat by acting on your brain to make you hungry, your liver to manufacture fat, and the fat cells in your abdomen to fill with fat. Abdominal fat is known as ***visceral fat.*** The treatment for high body fat induced obesity is to avoid foods that cause the highest rise in blood sugar and to take supplements that ensure that your blood sugar levels do not rise too high and stay high for prolonged periods. Avoid bakery products, pastas and all foods made from flour, fruit juices and everything with added sugar. Eat only low sugar content fruits like apples, papaya, pears, guavas, water melon, etc. during the day. Avoid Grapes, Mangoes, chickoos, bananas, sweet lemons, sitafal, etc. as these are very rich in sugar and will raise insulin levels tremendously. Also avoid frequent meals throughout the day as these will cause insulin levels to stay very high throughout the day. In healthy people the insulin levels decline to normal in about 2 hours after ingestion of food. If you eat numerous small meals throughout the day, (every 2 or 3 hours apart) the insulin levels will never get a chance to decline to normal and will end up staying high throughout the day. ***Thus it is possible to start with breakfast at 7:00 am and end up with Dinner at 10:00 pm with numerous meals in between to maintain high insulin levels from 7:00 am to 12:00 am midnight. This means for 17 hours out of the 24 hour day your insulin levels will remain high, thereby causing the rapid and continuous accumulation of body fat.***

After you eat, sugar goes from your intestines into your bloodstream, and then immediately into your liver. Then your liver releases sugar back into your bloodstream to cause your blood sugar level to rise. To keep blood sugar levels from rising too high, your pancreas release insulin into your bloodstream. Insulin makes you hungry all the time and causes your liver to convert extra calories to fat and it constricts arteries to cause heart attacks. You need insulin to keep blood sugar levels from rising too high to cause diabetes, nerve damage, heart attacks, strokes and kidney damage. ***Prescription Strength Organic Chromium, when administered at Intracellular levels, will due to its Therapeutic action, prevents blood sugar levels from rising too high, so that your body doesn't need to produce too much insulin that makes you hungry and causes your liver to make fat*** (3,13,14). Adequate serum chromium levels ensure low insulin levels throughout the day.

Intracellular chromium, when properly delivered at therapeutic dose levels, lowers insulin levels (4), reduces the severity of many of the symptoms of diabetes and can also be used by people who want to lose weight. Since chromium lowers insulin levels, diabetics should use organic chromium designed to penetrate at intracellular levels to lower their requirements for all other prescription drugs used to treat diabetes (6).

People who are diabetic or borderline diabetic have ***Insulin Resistance*** which impairs the ability of the cells to efficiently utilize glucose for energy production. When glucose cannot be utilized efficiently, it causes the blood sugar levels to rise / remain high for prolonged periods and the body releases more insulin which also remains high for prolonged periods.

Thus a diabetic or a borderline diabetic can end up having high insulin levels throughout the 24 hour day. ***It is not unusual to find obese persons with borderline high blood sugar / insulin levels.*** You can enhance ***Insulin sensitivity*** by keeping large gaps between meals and also by lowering the daily calorie intake to 1500 to 1800 calories per day.

Free Testosterone and DHEA levels when brought to Optimum Value can help enhance insulin sensitivity in males and help reduce accumulation of abdominal / visceral fat.

A good Liver Detoxification and Rejuvenation Program which helps lower liver Enzymes (SGPT/ALT, SGOT/AST and GGPT / Gamma GT) levels will help increase bile flow which in turn will help to rapidly digest and breakdown accumulated fats to use as a source of energy for the body.

Women normally having polycystic ovary syndrome, also suffer from obesity, which is more often than not linked to having high blood levels of insulin. Chromium helps these women to release weight / body fat by lowering insulin levels, preventing the further accumulation of body fat and thereby leading the way to metabolizing existing body fat. Lowering insulin levels helps with the reduction of polycystic ovaries (7-12).

Chromium and magnesium are safe dietary supplements, when administered at intracellular levels at therapeutic levels, prevents blood sugar levels from rising too high and staying high throughout the day. You can defeat their good effect by indiscreetly taking foods that causes rapid rise in blood sugar levels – foods with high glycemic index – potatoes, rice for example. So correcting serum chromium and magnesium while eating two bagels daily for breakfast, will not help to lose weight.

We recommend taking Intracellular Chromium and Magnesium with other synergistic supporting nutrients till Serum Insulin levels reduce to an Optimum Level of 5 to 10 µIU/mL both for Fasting and Post Prandial (2 hours after meals).

* Insulin	Std. Ref. Range	Optimum Value
Fasting (F)	**2 to 25 µIU/ml**	**2 to 5 µIU/ml**
Post Prandial (PP) 2 hours after meals	**12 to 82 µIU/ml**	**5 to 12 µIU/ml**

*** Insulin levels return to normal levels in 2 hours in non diabetic people**

Optimum Insulin Levels to Prevent Accumulation of Body Fat

On achieving such lower levels of serum insulin the body will stop accumulating fresh body fat and conditions will be created to metabolize the existing fat and at the same time lowering appetite. You have to help the body by not ingesting high glycemic index foods – rice, potatoes, bagles, pastas, etc. for instance.

From the above it is clear that, having multiple small meals frequently throughout the day will maintain high insulin levels (throughout the day) and will not only prevent the reduction of body fat but will enhance the accumulation of body fat and lead to obesity.

Insulin and Inflammation

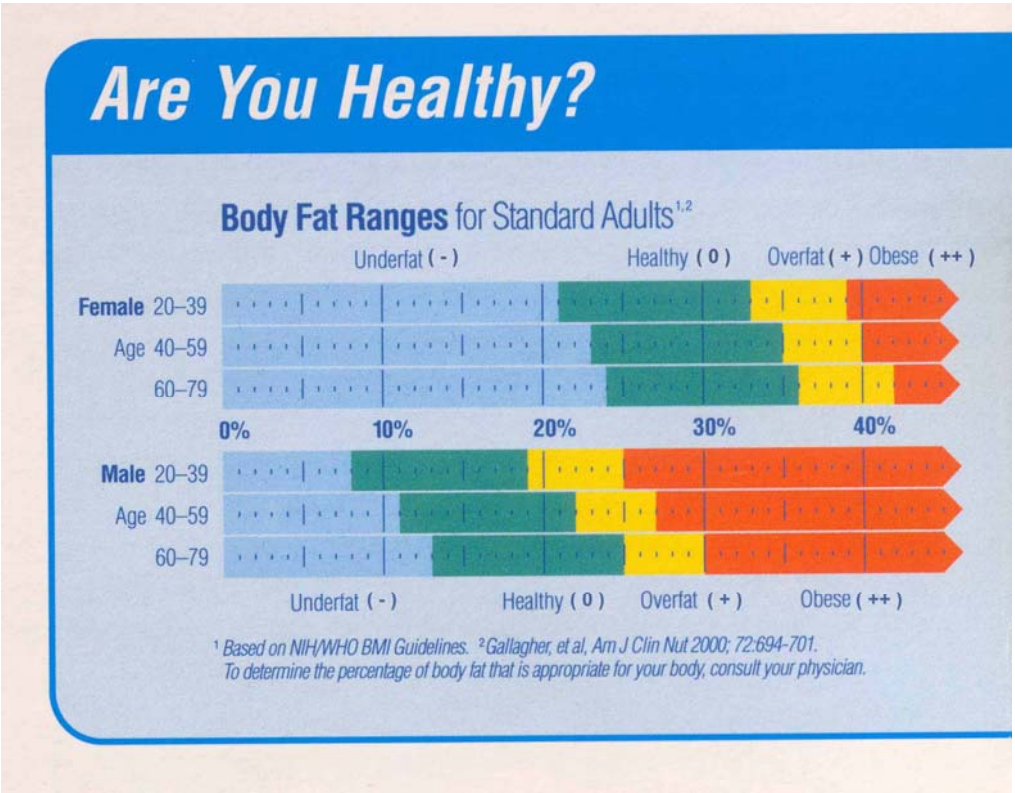
- High insulin levels promote inflammation and speed up your body's aging processes, and insulin resistance is a hallmark of most chronic diseases. Avoiding sugars and high glycemic index foods, and getting regular exercise are two of the most potent ways to help normalize your insulin levels and avoid insulin resistance

- Chronic inflammation is the source of many diseases, including cancer, obesity, and heart disease, which essentially makes it the leading cause of death in the U.S.

- Feeling stressed can create a wide variety of physiological changes, such as impairing digestion, excretion of valuable nutrients, decreasing beneficial gut flora populations, decreasing your metabolism, and raising triglycerides, cholesterol, insulin, and cortisol levels

- While diet accounts for about 80 percent of the health benefits you reap from a healthy lifestyle, exercise and getting proper sleep are also cornerstones of good health that, if ignored, can have a dramatically negative impact on your longevity

- High blood pressure can often be related to your body producing too much insulin. Many with hypertension can normalize their insulin / blood pressure through simple lifestyle modifications, such as avoiding sugars and high glycimic index foods, exercising regularly and optimizing your vitamin D levels.



Organic Magnesium – What The Experts Say !

Recommended Daily Allowance (RDA) = 350mg;
Optimum Daily Allowance (ODA) = 600mg;
Therapeutic Dose: 1000 to 1440 mg per day in 4 equal divided doses for few months at a time.
Therapeutic Doses of Magnesium may be administered for a few months while regularly monitoring Serum or preferably Intracellular Magnesium levels.

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Prescription for Nutritional Healing:
Research has shown that **Magnesium may help prevent Cardiovascular Disease.**

Magnesium deficiencies are at the root cause of many Cardiovascular problems. Magnesium deficiency may be a major cause of fatal cardiac arrhythmia, hypertension, and sudden cardiac arrest.

Magnesium plays a central role in the secretion and action of insulin. Without adequate magnesium levels within the body's cells, control over blood sugar levels is impossible.

Magnesium supplementation is helpful in cases of glucose intolerance and insulin insensitivity. Magnesium helps regulate Blood Sugar by improving Pancreatic function.

Test for Magnesium Deficiency

To test for magnesium deficiency, a procedure called an intracellular (mononuclear cell) magnesium screen should be performed. This is a more sensitive test than the typical serum magnesium screen, and can detect a deficiency inside the cell (where it is really required) with much more accuracy.
The Reference Range for Serum Magnesium used by Allopathic Medicine to detect a state of disease is 1.8 to 3.0 mg/dL. **Optimum value of Serum Magnesium in healthy individuals desiring perfect health is typically 2.4 to 2.8 mg/dL.**

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A scientific review: the role of chromium in insulin resistance.

[No authors listed]

Abstract

Chromium is an essential mineral that appears to have a beneficial role in the regulation of insulin action and its effects on carbohydrate, protein and lipid metabolism. Chromium is an important factor for enhancing insulin activity. Studies show that people with type 2 diabetes have lower blood levels of chromium than those without the disease. Insulin resistance is the common denominator in a cluster of cardiovascular disease risk factors. One out of every five Americans has metabolic syndrome. It affects 40% of people in their 60s and 70s. Insulin resistance, with or without the presence of metabolic syndrome, significantly increases the risk of cardiovascular disease. Insulin resistance is present in two serious health problems in women; polycystic ovarian syndrome (PCOS) and gestational diabetes. Several studies have now demonstrated that chromium supplements enhance the metabolic action of insulin and lower some of the risk factors for cardiovascular disease, particularly in overweight individuals. Chromium picolinate, specifically, has been shown to reduce insulin resistance and to help reduce the risk of cardiovascular disease and type 2 diabetes. Dietary chromium is poorly absorbed. Chromium levels decrease with age. Supplements containing 200-1,000 mcg chromium as chromium picolinate a day have been found to improve blood glucose control. Chromium picolinate is the most efficacious form of chromium supplementation. Numerous animal studies and human clinical trials have demonstrated that chromium picolinate supplements are safe.

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