

## Insulin 101

### INSULIN

- Controls how our body handles incoming food
- The longer you are overweight the higher your fasting insulin goes
- The higher your FASTING INSULIN the further along towards obesity / Metabolic Syndrome and TYPE 2 diabetes you are

### Hi INSULIN *Promotes weight gain by storing fat*

- **Causes** your cells to become resistant to the hormone's effects.
- When you become **insulin** resistant, your pancreas produces even more **insulin**, creating a vicious cycle
- Lowers magnesium levels and increases inflammation
- Lowers HDL Cholesterol and raises LDL
- ALL of the above increase the risk of diabetes and heart disease

### HIGH INSULIN PROBLEMS:

- Associated with abdominal obesity/hypertension/high cholesterol/high glucose (aka METABOLIC SYNDROME) & an increased risk for heart disease
- Excess hunger is created
- When high the body will never use/burn stored fat as energy

### Avoid HIGH INSULIN:

- Follow a LOW carb diet (under 150 - 200 g is a good start)
- Eliminate processed foods/sugar/four
- Increase plant food and fiber
- Increase healthy fats such as liberal amounts of olive oils, olives, nuts and seeds, avocado
- Moderate amount of wild and grass-fed fish, poultry and meat
- Reduce grains /HIGH omega 6 oils such as soybean, canola, corn, cotton seed, sunflower (These are extracted from plants using either a chemical solvent or oil mill. Then they are often purified, refined and sometimes chemically altered)
- Exercise/Move more and regularly
- Avoid being sedentary
- Practice Time Restricted Eating (A common form of TRF involves fasting for 16 hours each day and only eating during the remaining 8 hours, typically on the same schedule each day. A more liberal practice would be 12 hours of fasting and a 12 hour eating window, or a stricter form would be to eat one meal per day, which would involve around 23 hours of fasting per day)
- Eat carbs with fat or protein to temper their breakdown and conversion to glucose
- Take apple cider vinegar
- Watch portions
- Add cinnamon to food

### Note About SODA:

Some Studies Link Diet Soda to Diabetes and Heart Disease.

Although diet soda has no calories, sugar or fat, it has been linked to the development of type 2 diabetes and heart disease in several studies.

Diet Soda and Metabolic Syndrome: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446768/>

& <https://www.ncbi.nlm.nih.gov/pubmed/19151203>

Diet Soda Associated with Long Term Increases in Waist Circumference: <https://www.ncbi.nlm.nih.gov/pubmed/25780952>