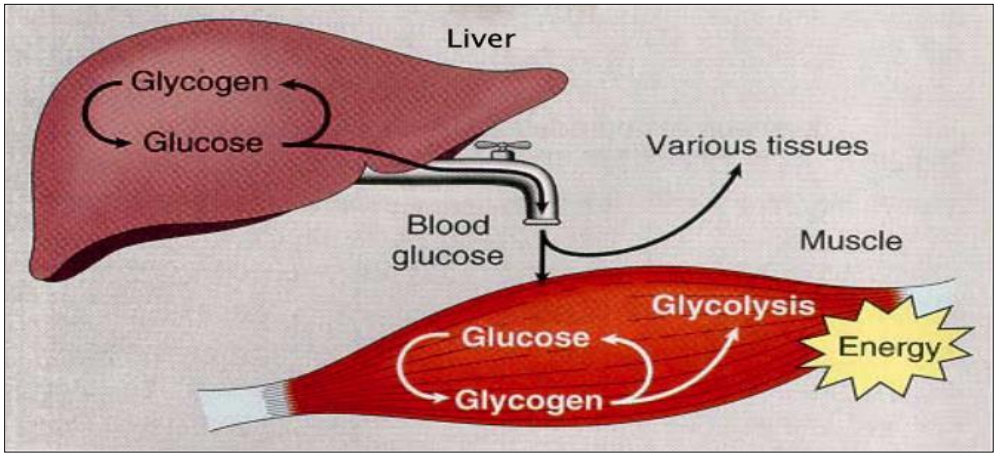
Why does Insulin Resistance Occur?

Insulin Resistance occurs when one consumes a diet rich in refined carbohydrates, and unhealthy fats (see the list of four food poisons below). The sugars in the food are broken down into glucose, which gets absorbed from the digestive tract into the bloodstream. Insulin helps in transporting glucose inside the body cells. The glucose is vital for making the energy for cell survival. The hormone Insulin helps in making two types of energy in the body–energy for immediate use and the reserve energy for later use. The reserve energy gets used when there is no glucose supply coming from the digestive tract.

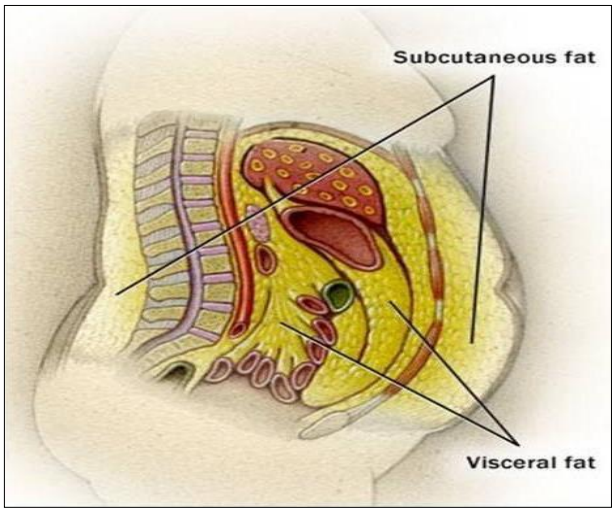
- The energy for immediate use-Insulin helps in transporting the glucose inside the cells to make the energy, which is important for the survival of the cells.
- The reserve energy for later use-The excess of glucose that remains in the blood gets converted to reserve energy for later use. There are two types of reserve energy;

a) Glycogen- It is a short term energy reserve stored only in muscles and liver. When there is no glucose coming from the digestive tract, glycogen gets rapidly broken down to glucose for energy. Good examples are glucose energy for night time fasting hours or extra glucose energy needed when there is high energy demand for sudden muscle activity. Glycogen reserve is limited in amount and gets used up entirely when a person fasts for 24-36 hours.

Glycogen Energy Reserve: 24 – 36 Hrs



b) Fat- When the glycogen stores get filled up, the extra glucose is converted by Insulin into fat. The fat is a long-time energy reserve which gets used during long periods of starvation. Unfortunately, the body has an unlimited capacity to store fat. The liver is the first organ which collects fat, followed by the abdominal organs, muscles, and under the skin. Fat in the body is like a fixed deposit in the bank; until one makes an effort to withdraw it by cutting down the sugar intake in the food; it will stay stored in the body.



Fat Energy Reserve

- Too much glucose
- Too much insulin

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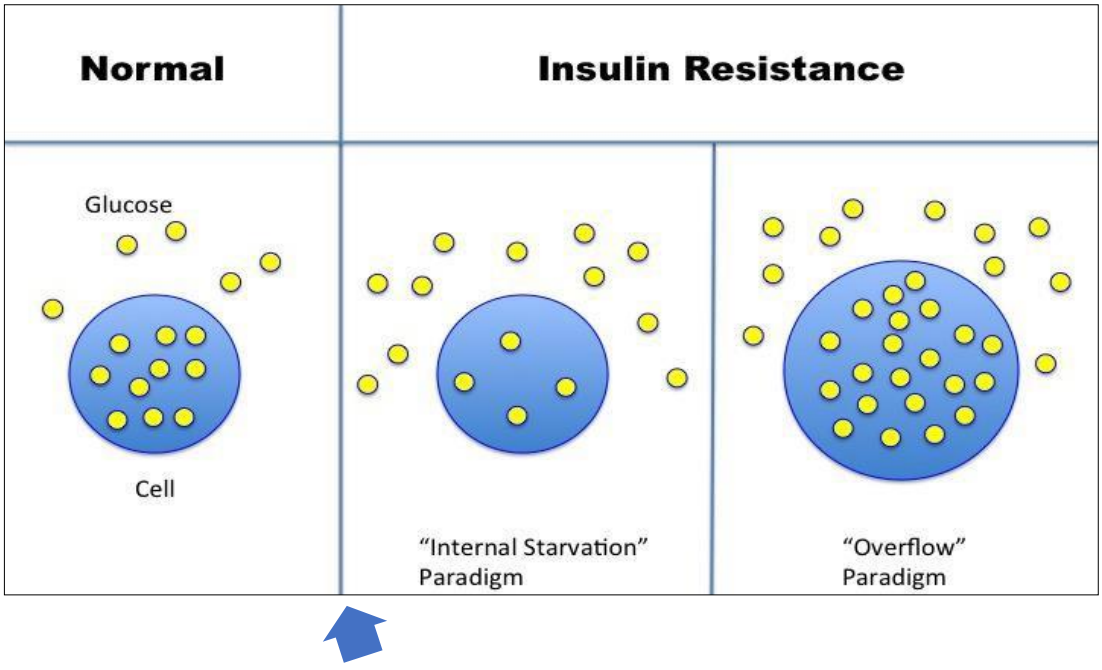
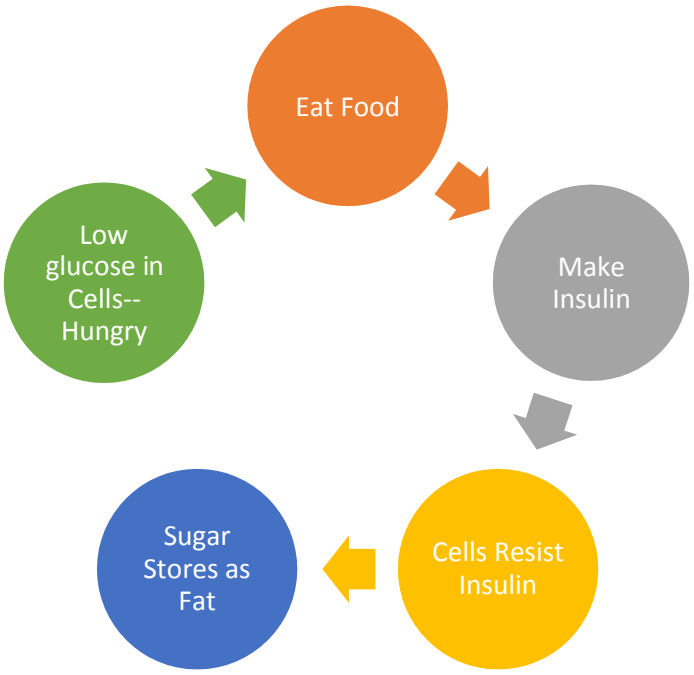
- Too much fat
- Obesity
- Type 2 diabetes

Excess of fat in the liver, in the muscles and around abdominal organs causes Insulin Hormone Resistance. The Insulin resistance is an attempt by the body to save the body cells from the toxic high levels of glucose. Insulin resistance diseases listed above have taken an epidemic proportion globally in the past 50 years. That is because of a drastic change in the food and lifestyle of the population.

Insulin Resistance & Food Cravings from low glucose level in cells





Insulin Resistance