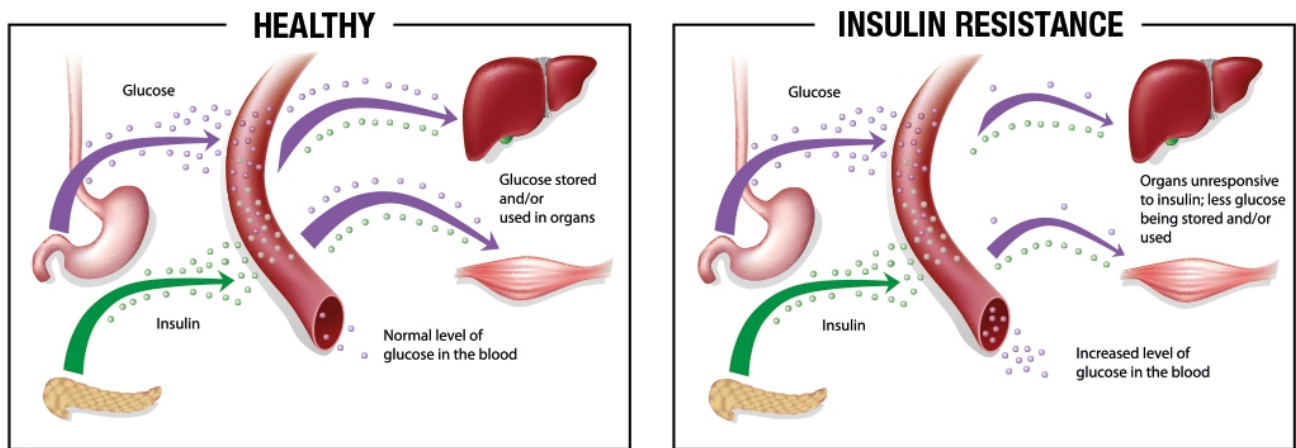


Why is Insulin Resistance important to understand?



As we dig deeper into which foods are best for ultimate health and digestion, it's important to understand how we absorb nutrients into the body.

After sugars are ingested in the form of carbohydrates or sugar; the pancreas (more specifically, cells called beta cells within the pancreas) release a hormone called insulin. Insulin acts as a transporter which carries the sugar to the body's cells and allows the sugar to be absorbed by the cells.

If insulin is constantly being spiked in the body, the cells become tired and therefore they move slower and can become less responsive

Imagine a garage door opener – if you constantly push the button to open the door every few minutes, eventually, the battery will stop working, and the garage door will not open. This term is called “insulin resistance.” With insulin resistance, sugar can no longer be absorbed by your healthy cells effectively and instead of being absorbed and used as energy, sugar starts to be stored in other areas of the body like your blood, muscles, liver, and fat cells.

If we have insulin resistance, we feel thirsty and hungry, even after a meal. Our cells are essentially starving because the insulin is not allowing our cells to absorb the sugar that is in our systems and unbeknownst, our brain tells our body that we need more sugar, even though this is the last thing our body actually needs.

Sugar is also transported to the liver and muscles in the form of glycogen. When the glycogen stores are full, insulin will also take sugar out of the bloodstream, and the body will convert it and store it as excess fat.



INSULIN RESISTANCE Continued

The main purpose of insulin is to keep the blood sugar level from getting too high and moving excess carbohydrates or sugars out of the bloodstream where they can be stored into the tissues for later use. In our society we eat a lot of white flour, refined sugars, white rice, and other starchy foods. These foods are triggering this excess insulin production which causes us to gain weight because it is being stored as fat.

When we have a diet that is full of processed sugar and carbohydrates, our body will constantly have to produce insulin to keep up. We can measure the sugar content by understanding the **glycemic index (GI) of certain foods**. The higher the sugar or glycemic index, the more insulin our body will produce and release. **Foods with a low GI trigger less insulin production.**

When our body encounters constant spikes of insulin, our cells start the process of becoming insulin resistant. When there is more inflammation going on in the tissues, we cannot absorb critical nutrients, which leads down the path of further resistance to insulin. When the cells stop absorbing insulin they cannot absorb sugar. This causes a large amount of sugar to float aimlessly within your bloodstream and your blood sugar level can become too high. As a result, high blood sugar levels affect brain function, as well as the functionality of all other organs in the body. The high insulin levels also contribute to chronic disease processes like cancer because high insulin levels interfere with production of prostaglandins (an anti-inflammatory response).

**High insulin is also a growth stimulator
which is found to be high in most cancers.**

Our body is made up of trillions of cells that contain all the material necessary for life.



CELL HEALTH & INSULIN RESISTANCE

Cells manage a wide range of functions: growing, moving, and detoxing.

We have over
70 trillion cells that make up tissues, and these tissues make up our organs.

Each cell has a lifespan of 1-2 months.

Every 24 hours our body replaces an entire layer of tissue, getting rid of the old cells, and replacing them with new cells.

That means that **our bodies are producing billions of cells daily.** Cellular nutrients come in different forms including sugars, proteins, and fats. In order to provide a cell with energy, these digested food molecules have to pass through the cell membrane where over a thousand chemical reactions occur. Each cell membrane has a gate on its receptor where messages attach themselves and these gates have to be opened for these messages to get in.

Who knew insulin was such an essential part of our livelihood and would be the key to opening and allowing nutrient absorption to our cells. But the important lesson here is even insulin needs to be balanced in order to help your body function properly.

