



BE AWARE

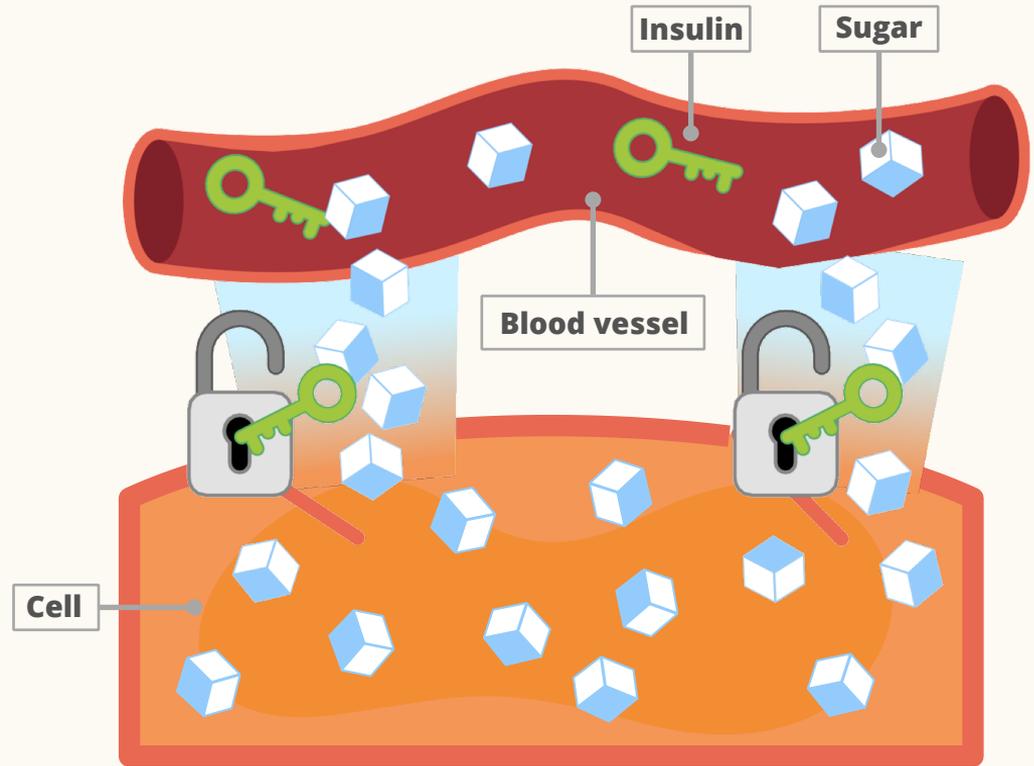
How Diabetes Develops

How insulin works in a healthy person

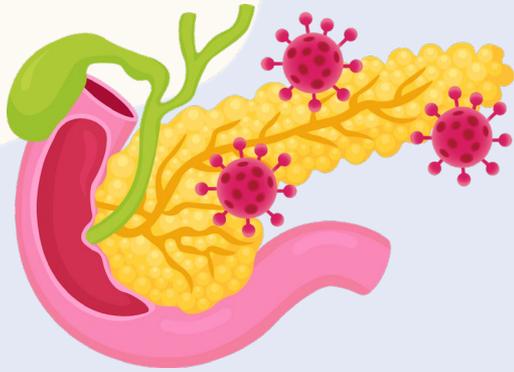
Insulin is a hormone that helps control the blood sugar level in your body.

It is produced by beta cells in one of our organs called the pancreas (insulin factory).

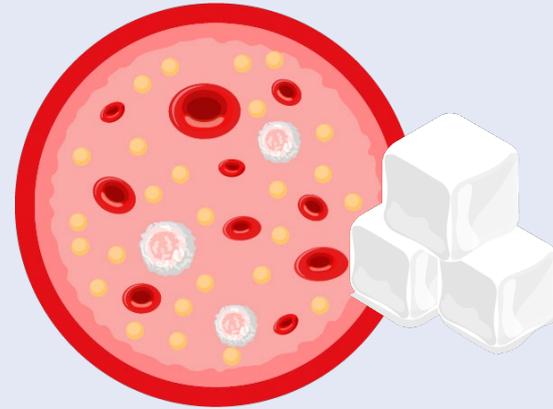
Insulin moves sugar (glucose) into the cells, which is then used to **generate energy** and maintain normal body functions.



How Type 1 diabetes develops

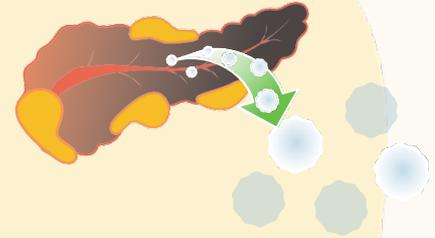
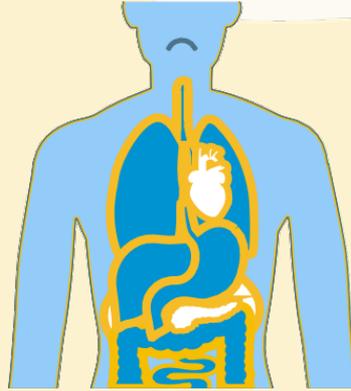


- Body's immune system **destroys the insulin-producing beta cells of the pancreas** (insulin factory). The body is **unable to produce sufficient insulin.**



- Without insulin, the body is unable to move glucose from the bloodstream into the body cells to use for energy. **As a result, blood sugar levels remain high.**

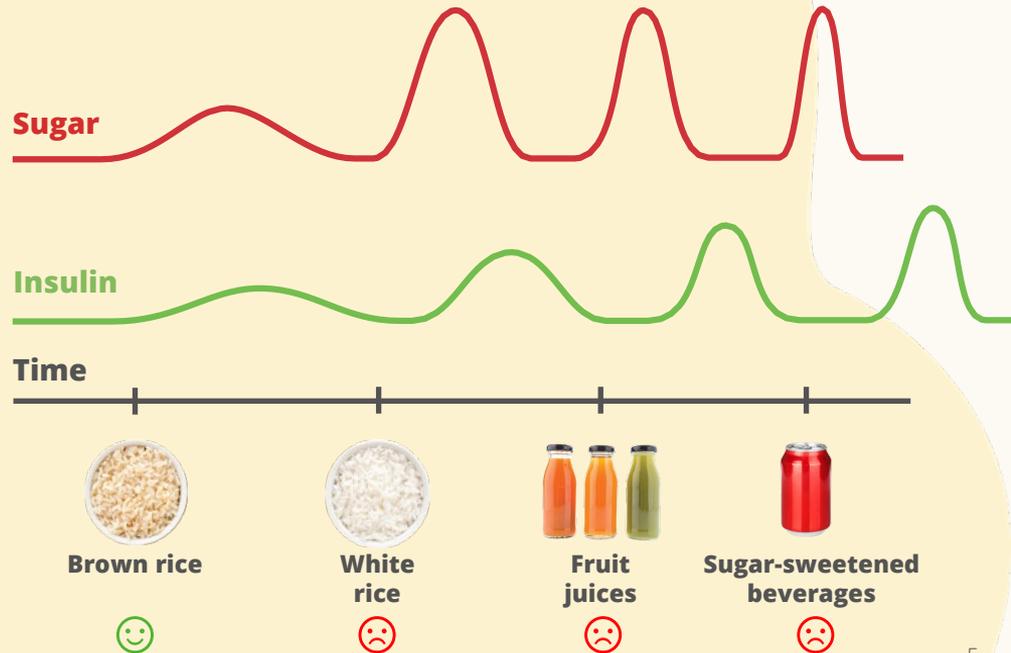
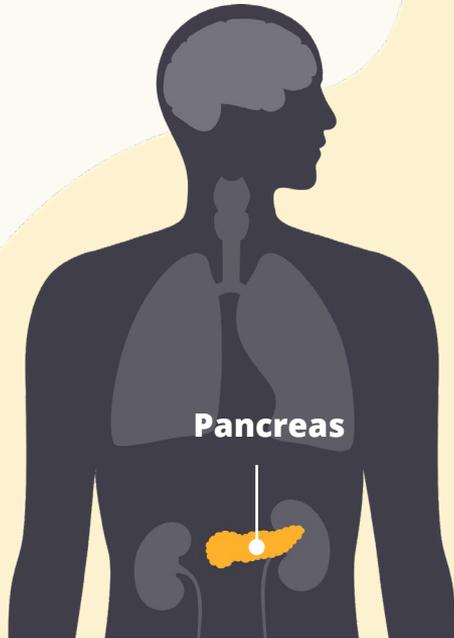
How **Type 2** diabetes develops



- **Frequent intake of sugar and refined carbohydrates** causes blood sugar levels to rise, forcing the pancreas (insulin factory) to work harder to produce more insulin to control blood sugar levels.
- **As the body does not require this excess sugar for energy, it is converted and stored as fat.** If there is excess fat in the body, the body cells do not respond well to insulin. **More insulin is needed to move sugar from the bloodstream into body cells, further stressing the pancreas.**
- Over time, **the overworked pancreas becomes damaged and produces less insulin**, making it harder to keep blood sugar levels normal.

High blood sugar levels cause your pancreas (insulin factory) to work harder

Eating food high in sugar causes blood sugar levels to rise, forcing the pancreas to produce more insulin to control blood sugar level.



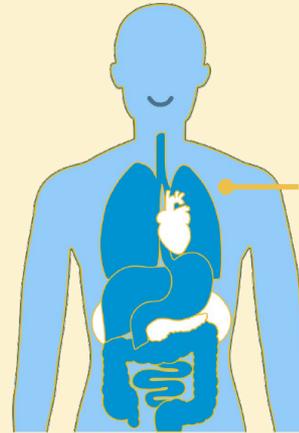
Excess (unused) sugar in your body is stored as fat

There may be excess fat in your body even if you look thin

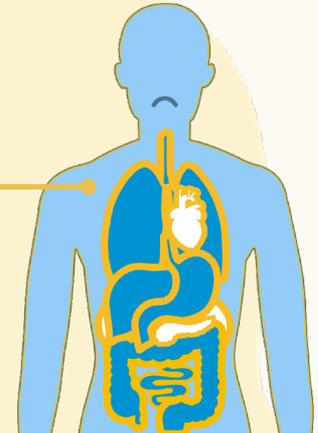
Where is the fat stored?

Fat surrounding the organs and muscles (this is not visible to us)

Fat under the skin (this is visible to us)



Healthy
Less internal fat



TOFI (Thin Outside, Fat Inside)
More internal fat even though the person appears to have less fat under the skin. **If you are TOFI, you are also at risk of diabetes.**



You are likely to have excess internal fat if you have **an apple-shaped body**.

Excess internal fat can cause problems



Internal fat

Fat surrounding internal organs, and those which enters organs and muscles, can lead to inflammation and damage of body cells.

Consequences of excess fat in the body

- Insulin resistance, high blood pressure, high LDL-cholesterol, low HDL-cholesterol and high triglycerides.
- Excess internal fat can cause damage to the pancreas and other organs.