

Diabetes Education

GENERAL CONCEPTS CONCERNING DIABETES

What is diabetes?

- Diabetes is a chronic illness. It is diagnosed when the amount of glucose (sugar) in the blood is above a certain level.

Person with diabetes	Basal glucose (in venous blood, with an empty stomach) equal to or above 126 milligrams per decilitre (mg/dl)
Person without diabetes	Basal glucose: 75-100 mg/dl
People at greatest risk..... of developing diabetes	Basal glucose: 100-125 mg/dl

The importance of diabetes

Diabetes is a very common illness. It affects between 6% and 10% of the population, and this figure is expected to increase over the next few years, especially among the immigrant population as they adopt western lifestyles.

It particularly affects older people.

The importance of diabetes, especially when it is not properly controlled, is that it can lead to complications, affecting especially the cardiovascular system (heart attack, stroke) as well as the nervous system, the kidneys and the eyes. Diabetes is accompanied by other diseases that also raise the risk of cardiovascular complications, such as high blood pressure, increased fat (cholesterol and triglycerides) and obesity (especially fat round the waist).

Why does diabetes occur?

Most of the food we eat is transformed into glucose in the digestive system. The glucose is absorbed into the blood where the cells of the organism use it to obtain energy. Insulin is a substance produced in the pancreas (especially when we eat) and enables the sugar, or glucose, to enter the cells.

Diabetes is due to the pancreas failing to secrete enough insulin and/or the insulin having less effect, which leads to an increase in blood sugar levels.

What symptoms does diabetes produce?

When the glucose levels are not excessively high, there are normally no symptoms. This means that the illness can develop unnoticed for up to 10 or 12 years.

When glucose levels are very high (more than 250 mg/dl), the body's efforts to eliminate the excess sugar produce the characteristic symptoms of decompensated (unbalanced) diabetes: the excess glucose is eliminated by the kidneys through the urine, thereby increasing the amount of



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urine produced. A by-product of this is that the person becomes very thirsty and hungrier than normal.

Types of diabetes

Type 1

- Onset is usually during childhood or adolescence, although it can appear at any age.
- It usually appears suddenly: intense thirst, increased amount of urine, tiredness, loss of weight in spite of eating a lot.

Type 2

- This represents 90% of the types of diabetes.
- It does not generally cause any bother during the early years.
- There are usually other cases in the family.
- It is due to insufficient insulin production combined with inadequate use of the insulin that is produced.
- It is often accompanied by raised blood pressure, increased cholesterol and obesity (especially in the abdominal area).

Gestational diabetes

- This is diabetes that appears during pregnancy.

General treatment strategies

For a person with diabetes, it is important:

- To control their blood glucose or blood sugar level.
- To control their weight, blood pressure, fats (cholesterol and triglycerides) and especially not to smoke.



How to prevent diabetes

At the present time, there is no effective way of preventing Type 1 diabetes. Type 2 diabetes, which is much more common and often associated with obesity and a sedentary lifestyle, can be prevented by a balanced diet –eating more fruit and vegetables and cutting down fat consumption- together with daily physical activity, such as walking for half an hour every day.