

Types of Insulin

There are several types of insulin, based on how fast and how long they act in the human body. Your Healthcare Professional will work with you to select the one that is best for you.



Type of insulin	Delivery (time taken to reach bloodstream*)	Peak (time taken to reach highest level of effectiveness*)	Duration (length of time it stays effective)
Rapid-acting	≈15 minutes	≈1 hour	≈2 to 4 hours
Regular or short-acting	≈30 minutes	≈2 to 3 hours	≈3 to 6 hours
Intermediate-acting	≈2 to 4 hours	≈4 to 12 hours	≈12 to 18 hours
Long-acting	Several hours	Reduces blood sugar levels relatively steadily over 24 hours	

* Time after injection

Living with Diabetes – Practical Tips

Eating Right

The food you eat has a large influence on the sugar levels in your blood. It is important to know your foods and to manage your insulin injections accordingly. A dietitian who has expertise in type 1 diabetes can help you set up a plan for a balanced diet, your insulin doses and the right level of activities. When your eating habits or preferences change, it is time to update your eating plan!

Exercising

When you move, your body consumes more energy and uses up the sugar faster than when you rest. Being active is good! In the long run, exercise will help to stabilize your blood sugar levels.

Finding Support

Social and emotional support can positively boost your well-being. It can be very helpful to share your experiences with other diabetics. A good network of support from family members, friends, and diabetes patients organizations really makes a difference!

Storing Insulin

For example, insulin may need to be refrigerated. If the injection of cold insulin is painful for you, the insulin container can be held at room temperature (typically around 20°C in central Europe) before injection. Some insulin products can be stored in this way for about one month. **Please make sure to always check and follow the supplier's instructions.**

For more information and personalized advice about type 1 diabetes, please contact your Healthcare Professional.

Would you like to know more about diabetes? Please visit our website:

www.diabetes.ascensia.co.za



CUSTOMER SERVICE HELPLINE

0800 246 243

Caution: This brochure does not replace your Healthcare Professional advice.

Source: www.diabetes.org, www.diabetes.ca



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Type 1 Diabetes

Basic Information for Type 1 Diabetes Patients



Type 1 Diabetes

Life with Diabetes (Sugar Disease)

If you have diabetes, you are not alone. Worldwide there are millions of people living with diabetes – around 5% of them have type 1 diabetes and 95% have type 2.

Type 1 diabetes occurs at every age. It is a manageable condition and with proper diabetes treatment from an early age on, you can live a long and fulfilled life.

Eating right, exercising, social support, monitoring blood sugar and insulin and other oral drugs management is important!

Diabetes – What you Should Know

Diabetes is a condition where the amount of sugar (glucose) in your blood is higher than normal.

Type 1 diabetes is where the body produces little or no insulin. Insulin is needed to help sugar enter the cells of your body. The sugar comes from the food you eat and it is used in all cells and organs to generate the energy that keeps your body going.

The insulin that is missing in your body has to be replaced. Insulin cannot be taken through the mouth, but it has to be injected.

People with **type 2 diabetes** are still able to produce insulin, but the cells are unable to respond to the insulin properly. Most people with type 2 diabetes need pills and/or insulin injections to regulate the amount of sugar in their blood (also called blood sugar levels).

The Healthy Range of Blood Sugar

Food intake, delivering sugar to the cells and turning it into energy are essential processes in our bodies. The levels of sugar in the blood result from these processes. If the levels are too high or too low, there is the risk of serious consequences for your body. Therefore, normal blood sugar levels are important for your health.

Monitoring your Blood Sugar Levels is Important!

How to Monitor your Blood Sugar Levels

Your blood sugar level can be measured using a “blood glucose meter” or “blood glucose monitor”. You simply take a drop of blood by finger prick and the meter tells you how much sugar is in your blood at that time. This way, you can check if your blood sugar level is in the healthy range.

Monitoring blood sugar levels is the most important way you can check how well you are managing your diabetes!

Good Diabetes Management

To manage diabetes successfully, the blood sugar levels should be kept within the normal range by timely injections of the right dose of insulin. However, if you change your eating habits (ex. fast), or physical activities, your blood sugar levels may become too low or too high.

Hyperglycaemia – High Blood Sugar Levels

When the sugar level in your blood rises above the normal range, you become hyperglycaemic. If your sugar level stays too high for a long time, there is a risk of damage to organs and other complications.

High blood sugar levels develop when your body does not produce enough insulin or does not respond well to insulin. It can also happen when a person with diabetes forgets an insulin injection or if the injected insulin dose was too low.



Hypoglycaemia – Low Blood Sugar Levels

Your blood sugar level can also fall below the normal range, resulting in hypoglycaemia. Hypoglycaemia is often called an “insulin reaction”, because it can occur after taking too much insulin. Low blood sugar levels are common with type 1 diabetes patients – on average, episodes with symptoms occur twice a week. The number of unnoticed lows (without symptoms, at night) could be even higher.

If blood sugar levels fall too low, you can lose important functions, such as the ability to think and act normally. Low blood sugar levels require immediate action!

Contact your Healthcare Professional to discuss your individual blood sugar target range.

Insulin – What you Should Know

Insulin is a hormone that is naturally produced by the pancreas. Without insulin, the sugar cannot enter the cells and piles up in the blood. Insulin is the medication for people whose pancreas does not produce enough insulin (type 1 diabetes) or whose cells do not respond to insulin properly (type 2 diabetes).

Insulin Management – It's in your Hands!

When blood sugar levels rise after a meal, insulin is needed for type 1 diabetic people to bring the sugar levels back to normal. In healthy people, the pancreas provides the right amount of insulin. People with type 1 diabetes have to inject insulin several times daily with insulin pens, syringes, or insulin pump. Blood sugar monitoring helps you to determine when and how much insulin you need to inject.