

# Diabetes and monitoring of blood glucose levels



## What is diabetes?

Diabetes is a condition in which the amount of glucose (sugar) in the blood is too high because the body is unable to use it properly. More than 1 million Australians have diabetes. A lot of research is being done on diabetes although there is no cure yet and the cause is unknown. However it appears that diet and lifestyle habits and genetic factors all play a part.

## Why monitor blood glucose levels?

It is very important in the management of diabetes to have well-controlled blood glucose levels. If your blood glucose is kept above normal for too long you will be at risk of developing complications such as

problems with your eyes, kidneys or circulation.

If your blood glucose is too low (hypoglycaemia) you may experience symptoms such as dizziness, irritability and loss of consciousness or you may not experience any symptoms.

Good control of diabetes by maintaining blood glucose levels improves quality of life now and in the future.

## Self blood glucose monitoring

The only way you can know, at any time, whether or not you have achieved control is through blood glucose monitoring. A blood test is the most accurate way of testing for glucose levels in the blood. Blood glucose monitoring can be done without the help of a doctor or health professional. It may be done in the privacy of your home, in your office, or even in a hotel or aeroplane. Blood glucose monitors may be obtained at all pharmacies.

## How to monitor blood glucose levels

You may be able to accurately determine how much glucose is in a drop of blood using an instrument known as a blood glucose meter. You obtain a drop of blood for analysis by using a sharp needle called a lancet on your fingertip and then placing the drop on a pad that has been infused with chemicals. The blood triggers a chemical reaction in the pad, which indicates the concentration of glucose, and the meter then reads this reaction and converts it into a numerical value which you can see on the display panel.

## When do you monitor blood glucose?

It is very important to frequently test your blood glucose levels as you will be better able to manage or control

your diabetes. When you first start to use a blood glucose meter you may want to measure your blood glucose several times a day-when you get up in the morning, before and after every meal, and before you go to sleep. Once you achieve control of your blood glucose levels you may be able to have a more relaxed schedule. When you make a change in lifestyle eg. moving home or changing jobs or in times of illness you may want to increase the frequency of blood glucose monitoring. It is very important to consult your doctor about the monitoring schedule.

## How do you use blood glucose information?

Blood glucose monitoring tells you what your blood glucose levels are at the time of measurement. You can then discuss results with your doctor when you go for routine visits. The information you have about your blood glucose levels may alert your doctor to an emergency situation, such as very high or very low blood glucose readings. Your diabetes health care professional will be able to show you how to make adjustments in your food selection and intake and your exercise or other activity. As you gain experience in monitoring your blood glucose levels you will become more in control of your diabetes.

## References

1. Living with diabetes Type 2. Peterson LJ, Peterson C and Stone M.B. Bookman Press 1994.
2. Diabetes for Dummies. Rubin A.L Australian edition adapted by Prof Lesley Camble and the Diabetes Centre St Vincent's Hospital. Wiley Publishing Australia 2001.