

UNDERSTANDING DIABETES

What is Diabetes?



Diabetes is the name given to a group of conditions where blood glucose levels are too high. When we eat foods that contain carbohydrates, it is broken down (digested) in our body into glucose (sugar). Foods that contain carbohydrates include breads, rice, pasta, noodles, fruit and vegetables, dairy products, and sweet foods. When this glucose is broken down, it is used by our body for energy. Insulin is released by the pancreas and helps move the glucose from the bloodstream into cells in the brain, heart, other organs and muscles to produce energy. Diabetes occurs when the pancreas doesn't make enough insulin or the cells become resistant to insulin, leaving blood glucose levels too high.

There are three types of diabetes

- **Type 1 Diabetes** occurs when the pancreas can't produce insulin at all. It is usually diagnosed in childhood and affects about 10% of people with diabetes.* There is no prevention or cure available for Type 1, but insulin injections, physical activity and a healthy diet are essential for good management.
- **Type 2 Diabetes** occurs as a result of genetic and lifestyle factors including being overweight and inactive, eating a diet high in fat and sugar, and low in fibre, and excessive use of alcohol and other drugs. Effective management involves a healthy diet and regular physical activity. Medication and even insulin injections may be required as the disease progresses.
- **Gestational Diabetes** occurs when hormones produced during pregnancy interfere with insulin action. Between 12% and 14% of pregnant Australian women experience gestational diabetes, most after the 24th week of pregnancy.* Usually their blood glucose levels return to the normal range after giving birth, but they remain at a greater risk of developing type 2 diabetes in the future.

There's also *Pre-diabetes* which describes conditions of 'impaired glucose tolerance' and 'impaired fasting glucose'. This is when blood glucose levels are higher than normal but not high enough to be diagnosed as diabetes. About 2 million Australians have pre-diabetes*, which commonly develops into type 2 diabetes.

Diabetes develops as a result of lifestyle and genetics.

The aim of diabetes management is good control of blood glucose levels. Diabetes Australia recommends keeping blood glucose levels between 4.0 and 7.8 mmol/L*. This will help prevent the short-term effects of very low or very high blood glucose levels as well as possible long-term problems which can affect the eyes, kidneys and nerves.



Management of Diabetes

Diabetes requires lifestyle interventions, and can require medical management.

A healthy eating plan combined with regular physical activity can optimise blood sugar control and slow the progression of diabetes. Your doctor or specialist is the best person to advise you on medical matters.

The following strategies have proven benefits for diabetes management:

- Achieve and maintain a healthy body weight
- Regularly participate in moderate intensity physical activity
- Spread foods containing carbohydrate evenly over the day and eat the right amount for you
- Choose low Glycemic Index carbohydrate-containing foods
- The Glycemic Index measures how fast and how much a food raises blood glucose levels
- Choose healthy sources of fats and oils in moderation
- Boost your fibre intake and be sensible with alcohol
- Know how to read food labels and modify recipes to suit your needs
- Learn how to monitor your own blood glucose levels