



What is Diabetes

Diabetes describes a disorder in which the body cannot make proper use of carbohydrate in food because the pancreas does not make enough insulin, or the insulin produced is ineffective, or a combination of both.

Glucose comes from the digestion of carbohydrates in food. Insulin is the hormone responsible for helping glucose (sugar) move into the body's cells where it is used for energy. Glucose may also be stored in the liver ready for use, or stored as fat. When insulin is not present or is ineffective, glucose builds up in the blood.

Higher levels of glucose in the blood may lead to health problems such as diabetes.

Types of Diabetes

The two most common types of diabetes are:

Type 1

In type 1 diabetes, the pancreas does not produce insulin because the cells which make insulin have been destroyed by the immune system. This is called an autoimmune reaction. People with type 1 diabetes therefore require insulin injections every day to control their blood glucose levels.

Balancing insulin therapy, regular physical activity and healthy eating are all part of managing type 1 diabetes. Type 1 diabetes accounts for 10%-15% of all people with diabetes.

Type 1 diabetes is more likely to occur in people under 30 years but can occur at any age. Previously it has been called Insulin Dependent Diabetes Mellitus or Juvenile Onset Diabetes. Despite a great deal of research there is nothing that can be done to prevent or cure type 1 diabetes.

Type 2

In type 2 diabetes, the body does produce insulin but the insulin is ineffective or there is not enough insulin or both. Type 2 diabetes accounts for approximately 85%-90% of people with diabetes. Type 2 diabetes is usually seen in adults, but is now being seen in teenagers and children.

Type 2 diabetes is managed by regular physical activity, a healthy eating plan, and maintaining a "healthy waist" measurement. Carrying more body fat (especially around the abdominal organs) makes insulin less efficient at controlling blood glucose levels. This is often referred to as insulin resistance. Research has shown type 2 diabetes is progressive, that is, it can get harder to control your blood glucose levels. Therefore tablets and then later, insulin may be required to manage type 2 diabetes. The rate of progression and going onto medications varies from person to person. Previously type 2 diabetes has been called Non Insulin Dependent Diabetes Mellitus or Mature Age Onset Diabetes.

Risk factors for developing type 2 diabetes

There are well known risk factors for developing type 2 diabetes, some of these can be changed and some cannot.

Risk Factors which cannot be changed include:

A family history of diabetes

Over 40 years of age

An Aboriginal or Torres Strait Islander background

A Melanesian, Polynesian, Chinese or Indian subcontinent background

Women who have had Gestational Diabetes or who have Polycystic Ovary Syndrome



Risk Factors which can be changed include:

Overweight – waist measurement over 80cm for women and over 94cm for men

Level of physical activity

The type and/or quantity of food we eat

Smoking

Cholesterol

Blood Pressure

If you have one or more of the above risk factors, you should consult your GP for an assessment and blood test (venous sample).

There are also conditions associated with an increased risk of type 2 diabetes known as impaired fasting glucose (IFG) or impaired glucose tolerance (IGT). These are also known as pre diabetes.

PreDiabetes

Prediabetes conditions indicate that the blood glucose level is above the normal range but not at the level at which diabetes is diagnosed. Diagnosis of these conditions is made following an oral glucose tolerance test.

Healthy lifestyle interventions can reduce the risk of type 2 diabetes developing from pre diabetes.

Please refer to the Diabetes WA Impaired Fasting Glucose and Impaired Glucose Intolerance information sheet for further information.

Other types of diabetes:

Gestational Diabetes

Gestational Diabetes develops in 3-8% of pregnancies. Pregnant women need to make extra insulin to meet the demands for extra energy. If the body is unable to meet this demand gestational diabetes develops, usually around 24-28 weeks of the pregnancy.

Gestational diabetes usually goes away once the baby is born but women with gestational diabetes are at an increased risk of type 2 diabetes later in life.

Further information is available from Diabetes WA.

Latent Autoimmune Diabetes of Adults (LADA).

LADA is a term used to describe a condition of a slower onset version of type 1 diabetes in adults.

LADA is an autoimmune condition with a hereditary link and people with LADA are often initially thought to have type 2 diabetes however they will require insulin injections.



What are the signs and symptoms of diabetes?

- Increased thirst
- Frequent urination
- Feeling tired or lethargic
- Constant hunger
- Slow healing of cuts and sores
- Itching, skin infections
- Blurred vision
- Unexplained weight loss (may indicate type 1 diabetes)
- Weight gain may be evident in type 2 diabetes



In type 1 diabetes symptoms often develop suddenly and can be life threatening.

In type 2 diabetes the signs and symptoms may be absent or not obvious and may go unnoticed or be put down to “just getting older”.

How is diabetes managed?

- Education – finding out what you need to know to take responsibility for your health
- Regular physical activity
- Healthy eating – regular meals based on a wide variety of foods which are low in fat (particularly saturated fat) and containing quality carbohydrates
- Maintaining a “healthy waist” (reducing fat around your abdomen)
- Regular health checks with your diabetes team
- Use of stress management techniques
- Monitor your blood glucose levels
- Medication – tablets and/or insulin injections

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