

Dictionary / Glossary

acanthosis nigricans – a skin condition characterised by darkened skin patches on the back of the neck and axillary areas; commonly found in people who are very insulin resistant. This skin condition is sometimes seen in people who have pre-diabetes or type 2 diabetes.

angiography – an X-ray of blood vessels of the body.

arteriosclerosis/ atherosclerosis –thickening, hardening and narrowing of the arteries.

auscultation – listening for sounds within the body, chiefly to ascertain the condition of the thoracic or abdominal viscera and to detect pregnancy.

autoimmune – a problem in the body's immune system where the body mistakenly attacks some of its own cells and destroys them.

A1c – a test that measures a person's long term glucose over the past 8 – 10 weeks. Haemoglobin molecule with glucose attached. The amount of glucose attached to the haemoglobin will be determined by the concentration of glucose in the blood and the lifespan of the red cells. See glycosylated haemoglobin.

bacteriuria – bacteria in the urine.

beta cells – the insulin producing cells of the pancreas.

blood glucose – sometimes described as 'blood sugar' it is the main source of energy for the body cells.

blood sugar – see blood glucose.

BMI – see body mass index.

body mass index (BMI) – a measure used to assess body weight in relation to the person's height.

brittle diabetes – phrase used when a person's blood glucose level often swings quickly from high to low and from low to high – also called labile and unstable diabetes.

candida albicans (thrush) - a fungal infection that can affect the female and male genital areas (can cause itchiness and a thick white discharge). Women with diabetes are especially prone to thrush if they have high blood glucose levels.

carbohydrate (CHO) – one of the main food groups. CHO provides energy for the body. CHOs includes sugars and starches and are digested into simple sugars, such as, glucose. CHOs are stored as glycogen.

cataract – clouding of the lens of the eye.

CDE – see Credentialed Diabetes Educator.

Charcot's foot – a condition of the foot where the joints and soft tissue are destroyed by trauma which is painless because of neuropathy.

cholesterol – a type of fat found in food and produced by the liver and found in the blood. High cholesterol is considered a risk factor for cardiovascular disease.

claudication – pain in the calf muscles occurring on exercise and disappearing with rest. Sometimes occurs at night when laying down. Caused by decreased blood supply.

complications – damage to some organs of the body due to higher than normal blood glucose, blood pressure and cholesterol. Organ damage can occur in the blood vessels of the heart, brain and legs, kidneys, nerves and eyes.

continuous subcutaneous insulin infusion (CSII) – see insulin pump therapy.

creatinine – a nitrogenous compound formed in the muscle in small amounts, passed into the blood and excreted in the urine. The amount of creatinine in blood or urine is an indicator of kidney function.

Credentialed Diabetes Educator (CDE) - a registered nurse, dietitian, medical practitioner or pharmacist who has specialist expertise in diabetes education. A CDE has completed post graduate studies in diabetes education as well as a period of supervised practice. CDE's are recognised by the Australian Commonwealth Department of Health & Ageing as providers of diabetes education under the Medicare agreement.

dawn phenomenon – characterised by high fasting levels that are caused by insufficient insulin activity overnight. Can be difficult to distinguish from the Somogyi effect which is characterised by rebound hyperglycaemia following an episode of nocturnal hypoglycaemia.

DCCT – see Diabetes Control & Complications Trial.

Diabetes Control & Complications Trial - a study conducted in 1983 - 1993 in people with type 1 diabetes. The study showed that intensive insulin therapy (multiple daily insulin injections – or insulin pump) compared with conventional therapy significantly reduced the risk of developing complications.

diabetes educator – a health care professional who has undertaken specific training in diabetes education and therefore is qualified to teach people who have diabetes, how to manage their diabetes. Some educators are CDE's. Diabetes educators can be found in hospitals, community health services and in private practice.

diabetes insipidus – a disease of the pituitary gland not diabetes mellitus. Often known as 'water diabetes' due to large volumes of dilute urine passed. This is caused by inadequate anti-diuretic hormone levels or action resulting in failure of re-absorption of water from the renal tubules.

diabetes mellitus – a term used to describe a syndrome where there is relative or absolute deficiency of insulin. The condition is characterised by disturbances in carbohydrate, fat and protein metabolism. This is due to a malfunction of the beta cells of the pancreas whose role is to produce insulin. There are two main types of diabetes and other subtypes (see type 1 and type 2 diabetes).

Diabetes Prevention Program (DPP) – a study conducted in 1998 – 2001 in people with risk of type 2 diabetes (pre-diabetes and overweight). The DPP showed that weight loss of 5 – 7% via healthy eating and increasing activity, reduced the risk of developing type 2 diabetes.

diabetic ketoacidosis – a severe metabolic disturbance possible in type 1 diabetes. Features include hyperglycaemia, hyperosmolality and metabolic acidosis. Fat catabolism leads to accumulation of ketone bodies in the blood. If not corrected diabetic ketoacidosis is life threatening.

diabetogenic – producing or causing diabetes.

dialysis – a process of artificially cleaning waste from blood when kidneys are failing. See haemodialysis and peritoneal dialysis.

dietitian – a health professional who advises people on nutritional issues.

doppler – a device for measuring blood flow within an artery or vein. Sound waves are reflected by the moving red blood cells back to the transducer. The sound is proportional to the velocity of blood flow. It is used in assessment of vascular status and abnormalities in major arteries and veins.

dorsalis pedis pulse – the pulse on the upper part of the foot found between the 1st and 2nd metatarsal, ½ way up the mid foot.

DPP – see Diabetes Prevention Program.

dyspnoea – laboured or difficult breathing.

electrolytes – minerals in solution in the body. The electrolytes play an essential role in the function of the body tissues.

endocrine glands – glands that produce chemicals (hormones) which affect other body cells.

endocrinologist – a medical specialist in the care of people who have problems with their endocrine glands, eg diabetes.

endogenous – grown or made inside the body. Insulin that is made by the person's own pancreas is endogenous.

erectile dysfunction – inability to get or maintain an erection for intercourse.

erythematous – characterised by redness of the skin caused by congestion of the capillaries in the lower layers of the skin. It occurs with any skin injury, infection or inflammation.

euglycaemia – a normal level of glucose in the blood.

exchanges – servings of food that contain the same carbohydrate value (15g) sometimes referred to as 'serves'.

exogenous – grown or made outside of the body. Insulin that is genetically engineered is exogenous insulin.

femoral – pertaining to the femur or to the thigh.

fructosamine – a glycated protein like glycated haemoglobin that measures glucose control over the preceding 2 - 3 weeks.

fructose – a sugar that occurs naturally in fruits and honey.

gastroparesis – a result of autonomic neuropathy that affects the stomach. Emptying of food from the stomach may be incomplete or delayed, resulting in nausea, vomiting or bloating, making blood glucose control difficult.

gangrene – death of tissue often due to lack of blood supply or infection.

gestational diabetes – a type of diabetes that presents and is recognised during pregnancy. It usually occurs in the second half of the pregnancy. The condition usually reverts to normal glucose tolerance after delivery.

Women with a history of gestational diabetes are at high risk of developing type 2 diabetes later in life. Women should receive counselling about this risk and be informed about the need for regular screening tests for diabetes.

glomerular filtration rate – measure of the kidneys' ability to filter and remove waste products.

glomerulus – a tiny tuft of blood vessels that is part of the functional unit of the kidney.

glucagon – a hormone produced by the alpha cells in the pancreas. Glucagon is an insulin antagonist and increases blood glucose levels by stimulating the production of glucose in the liver. Glucagon injections are used in the treatment of severe hypoglycaemia.

gluconeogenesis – the formation of glucose by the liver. It occurs whenever the supply of glucose is insufficient and is stimulated by the sympathetic nervous system.

glucose – a simple sugar – a monosaccharide also known as dextrose. Glucose is the end product of carbohydrate digestion.

glucose tolerance test – a diagnostic test for diabetes involving a drink of glucose after an overnight fast. Blood glucose levels are measured before the glucose drink and 2 hours later.

glycogen – a substance made up of glucose and formed by and stored in the liver and to a lesser extent in the muscles and kidneys. Liver glycogen is converted into glucose and released into the blood when needed. Glycogen is the chief source of stored carbohydrate in the body.

glycogenesis – the conversion of glucose into glycogen for storage in the liver.

glycogenolysis – the breakdown of glycogen into glucose in the liver when blood glucose levels are very low.

glycosuria – the presence of glucose in the urine.

glycosylated (glycated) haemoglobin – see A1c.

haemodialysis – artificial removal of waste products from the blood using a dialysis machine, used when the kidneys fail.

haemoglobin – carries oxygen in the blood.

HbA1c – see A1c.

HDL – high density lipoprotein. Sometimes called 'good' cholesterol.

high blood pressure – see hypertension.

high density lipoprotein – see HDL.

honeymoon phase – temporary remission of hyperglycaemia that occurs in some people newly diagnosed with type 1 diabetes, when some insulin secretion resumes for a short time (after diagnosis), usually a few months, before stopping again.

hyperglycaemia – blood glucose higher than normal.

hyperglycaemic hyperosmolar state (HHK) – a rare but serious condition that occurs in type 2 diabetes and is characterised by hyperglycaemia, hyperosmolality and dehydration without ketoacidosis. Random blood glucose levels are often found to be greater than 25mmol/L.

hyperinsulinaemia – the level of insulin in the blood is higher than normal. Caused by overproduction of insulin in the body. May be related to insulin resistance.

hyperlipidaemia – elevated concentrations of any or all of the lipids (fats) in plasma.

hyperosmolality – an increased concentration of osmotically active substances – eg increased glucose concentration in body fluids.

hypertension – persistently high pressure of the blood against the arterial walls (blood pressure). Hypertension is common in people with type 2 diabetes.

hypoglycaemia – an abnormally low level of glucose in the blood.

hypoglycaemia unawareness – a state in which a person does not feel or recognise the symptoms of hypoglycaemia. People who have frequent episodes of hypoglycaemia may no longer experience the warning signs of it. May be a symptom of autonomic neuropathy.

hypoglycaemic agent – a medication that assists in lowering blood glucose levels.

impaired fasting glucose (IFG) – a fasting blood glucose higher than normal but below the level of a person with diabetes (see pre-diabetes).

impaired glucose tolerance (IGT) – a blood glucose level 2 hours after a 75g glucose load that is higher than normal but below the level of a person with diabetes (see pre-diabetes).

impotence – see erectile dysfunction.

incontinence – loss of bladder / bowel control.

insulin – is a hormone that is secreted by the beta cells of the pancreas and is the major hormone regulating carbohydrate, protein and fat metabolism.

insulin (basal) – a term used to describe intermediate and long acting insulin doses (background).

insulin basal rate – a term used to describe the rate of insulin given by an insulin pump to provide 24 hour insulin coverage.

insulin pen / device – a device for injecting insulin other than a syringe. May be disposable or be reloaded with insulin cartridges.

insulin pump therapy - (also known as CSII – continuous subcutaneous insulin infusion) – a device that delivers a continuous supply of short-acting insulin into the body.

insulin resistance – the body’s inability to respond to and use the insulin properly.

ischaemia – a deficient blood supply to part of the body due to constriction or actual obstruction of a blood vessel.

islets of Langerhans – groups of cells in the pancreas that make and secrete hormones. Beta cells make insulin. Alpha cells make glucagon. Delta cells make somatostatin.

ketoacidosis – see diabetic ketoacidosis.

ketone bodies – chemicals which occur as a result of fat breakdown. Can be dangerous in large amounts.

ketonuria – the presence of ketones in urine (warns of ketoacidosis).

ketosis – accumulation of large quantities of ketone-bodies in body fluids.

kidney disease – see nephropathy.

kidney failure – a chronic condition where the kidneys fail to clean impurities from the blood.

Kussmaul respirations – rapid, deep, laboured breathing which occurs in ketoacidosis. Also called ‘air hunger’.

lactic acidosis – a serious condition caused by the build up of lactic acid which is produced from glucose when there is not enough oxygen. Similar effects as ketoacidosis.

LADA – see latent autoimmune diabetes in adults.

laser (light amplification by stimulated emission of radiation) – an intense narrow beam of light which can be used to treat damaged areas in the body (eg blood vessels in the eye).

latent autoimmune diabetes in adults – insulin deficiency that develops in adulthood. Patients usually start insulin within 1 – 2 years of diagnosis.

LDL – low density lipoprotein. Sometimes call ‘bad’ cholesterol.

lipohypertrophy – lumps that may occur at injection sites due to over use of the site of injection. Treatment consists of systematically rotating the injection site.

lipolysis – fat catabolism or breakdown.

low density lipoprotein – see LDL.

macrosomia – greater than normal bodily size. In full term babies this is determined by birth weights greater than in the top 10% of babies of similar gestational age.

macrovascular disease – a disease of large and medium blood vessels. Vessels become diseased due to scarring and fatty plaque deposits which occur on the vessel lining.

maturity-onset diabetes of the young (MODY) – a kind of type 2 diabetes that account for 1 – 5% of people with type 2 diabetes. Of the six forms identified, each is caused by a defect in a single gene.

metabolic syndrome – a combination of conditions that often occur together in people who are at risk of type 2 diabetes or already have it. These include central obesity, hypertension, abnormal blood fats, high blood glucose (pre-diabetes or type 2 diabetes).

metabolism – the physical and chemical processes and reactions taking place in the body.

microalbuminuria – the presence of small amounts of protein (albumin) in the urine (early sign of kidney damage)

microvascular disease – a disease of the small blood vessels. The walls of the vessels become thickened and weak which results in blood and protein leakage or in blockage of the vessel.

(mmol) millimole – a measurement of the concentration of chemicals in the blood.

MODY – see maturity-onset diabetes of the young.

nephropathy – disease of the kidneys caused by degeneration of the small blood vessels or the glomeruli (kidney units that filter blood). Damage can progress to chronic renal failure.

nephrotoxic - an agent or drug that damages the kidney.

neuropathy – Where the sensory, motor and autonomic nerves are damaged. The severity of neuropathy is related to the duration and control of diabetes. Although any nerve may become affected peripheral nerves are more commonly damaged.

obesity – a condition of greater than normal weight, more severe than overweight (body mass index exceeding 30 kg (m²).

OGTT – see oral glucose tolerance test.

ophthalmologist – a medical specialist who can diagnose and treat eye diseases and eye disorders.

optometrist – an eye care professional who prescribes glasses and contact lenses. Optometrists can screen for diabetic eye disease.

oral glucose tolerance test – a test to diagnose pre-diabetes or diabetes. A glucose drink is given after an overnight fast. Blood glucose is measured at fasting and 2 hours after the drink. See glucose tolerance test.

oral hypoglycaemic agents (OHA's) – medications that stimulate the release or improve the action of insulin.

osmolality – the concentration of a solution in terms of osmotically active particles.

overweight – above normal weight, a body mass index of 25 – 29.9.

pancreas – a gland that lies in the abdomen behind to the stomach and partially surrounded by a loop of the small intestine. Its exocrine function is to produce and secrete digestive enzymes. The endocrine function in relation to diabetes is to produce and release insulin and glucagon.

paresthaesiae – abnormal sensations such as burning or prickling.

pedal pulses – arterial pulses which can be felt on the dorsum of the foot (dorsalis pedis) and on the medial side of the leg behind the ankle (posterior tibial).

peritoneal dialysis – cleaning the blood by using the lining of the abdomen as a filter. A process that require fluid to be infused into the abdomen and then drained out again.

pharmacist – a health professional who prepares and dispenses medicine. Pharmacists may also provide information about safe use of medicines.

photocoagulation – a treatment for diabetic retinopathy. A strong beam of light (laser) is used to treat the damaged retina.

podiatrist – a health professional who treats foot problems.

polycythaemia – an increase in the total red cell mass of the blood.

polydipsia – excessive thirst.

polyphagia – excessive ingestion of food.

polyuria – excessive excretion of urine.

popliteal pulse – the pulse found in the area behind the knee.

posterior tibial pulse - the pulse found on the medial site of the leg behind the ankle.

post prandial – see prandial.

prandial – referring to meals pre prandial - before meals; post prandial - after meals.

pre-diabetes – a condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. Impaired glucose tolerance and impaired fasting glucose. People with pre-diabetes are at increased risk for developing type 2 diabetes and for cardiovascular disease.

pre prandial – see prandial.

proteinuria – protein in the urine. This may be a sign of kidney damage.

pruritus – itching.

pump – see insulin pump therapy.

pyuria – pus in the urine.

rebound hyperglycaemia – see somogyi effect.

renal threshold – the blood glucose level above which glucose spills into the urine.

retina – the tissue that lines the back of the eye.

retinopathy – degeneration in the retina of the eye causing impaired vision. The changes can lead to aneurysms, haemorrhage and exudates with resultant blindness. Retinopathy is one of the major long term complications of diabetes mellitus.

s/c – abbreviation for subcutaneous as in subcutaneous insulin injections.

self-management – the process of managing one's own health (eg meal planning, or blood glucose monitoring).

Somogyi effect – rebound hyperglycaemia following a hypoglycaemic episode.

subcutaneous – the tissue area under the skin.

syndrome x - see metabolic syndrome.

teratogenic – an agent or influence that causes physical defects in the developing embryo.

thrush – see candida albicans.

type 1 diabetes – a condition characterised by high blood glucose levels caused by a total lack of insulin. The body's immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

type 2 diabetes – a condition characterised by high blood glucose levels caused by either a lack of insulin or the body's inability to respond to insulin (insulin resistance). Type 2 diabetes develops most often in middle-aged and older adults but can appear in young people.

UKPDS – see United Kingdom Prospective Diabetes Study.

ulcer – a break in the skin. People with diabetes may get ulcers from minor scrapes on the feet or legs, from cuts that heal slowly, or from the rubbing of shoes that do not fit well. Ulcers can get infected.

unit – the basic measure of insulin. U-100 insulin means 100 units of insulin per millilitre (ml) of solution.

United Kingdom Prospective Diabetes Study – conducted in England between 1977 and 1997 in people with type 2 diabetes. Showed that lower blood glucose reduced the risk of diabetes complications.

uraemia – the illness associated with the build up of urea in the blood because of kidney failure. Symptoms can include nausea, vomiting, loss of appetite, weakness and mental confusion.

very low density lipoprotein – see VLDL.

VLDL cholesterol – very low density lipoprotein cholesterol.