

Glossary

(from a product knowledge sales training program on diabetes and diabetes products)

aerobic exercise: activities that involve continuous, repetitive use of the large muscles; examples include bicycling, swimming, running, and vigorous walking

alpha cells: islet cells that secrete glucagon

angina (angina pectoris): severe pain in the heart region, usually radiating to the left shoulder and arm; caused by insufficient blood supply to the heart

arteriosclerosis: thickening and hardening of arteries of all sizes throughout the body

atherosclerosis: a condition in which fat deposits build up in the walls of arteries; this can interfere with blood flow, causing heart attacks, strokes, and damage to various organs such as the eye and kidneys

beta cells: islet cells that secrete insulin

cardiovascular disease: disease of the heart and blood vessels

cataract: clouding of the lens of the eye

cholesterol: a fatty substance important in metabolism; present in all animal products

cortisol: a hormone produced by the adrenal glands; increases blood glucose levels

creatinine: a normal component of blood and urine; increased quantities are found in advanced renal disease

delta cells: islet cells that secrete somatostatin

diabetes insipidus: a disease usually caused by lack of a hormone produced by the pituitary gland
About 14 million Americans have diabetes, or about one in every twenty people. About half aren't even aware that they have diabetes. More than 700,000 cases of diabetes are diagnosed each year. Because diabetes is a metabolic disease, many patients have other serious health problems, such as hypertension and hyperlipidemia

diabetes mellitus: a metabolic disease in which the body cannot get energy from food in the normal way, because the body doesn't make enough insulin or cannot use the insulin it has; in uncontrolled diabetes, high levels of glucose (sugar) build up in the blood and large quantities of sugary urine are excreted

eclampsia: a condition characterized by coma and seizures, developing between mid-pregnancy and the end of the first week postpartum

enzyme: a protein, produced by living cells, that can induce chemical changes without being

changed itself

epinephrine: a hormone produced by the adrenal glands; increases blood glucose levels

fasting plasma glucose test: a diagnostic test for diabetes, performed after the patient has fasted overnight

gestational diabetes: a condition in which high blood glucose levels develop during pregnancy in women who were not previously diabetic; levels usually return to normal after delivery, but about 50% of mothers with gestational diabetes later develop Type II

glaucoma: increased pressure in the eye

glucagon: a hormone produced by the alpha cells of the pancreas; increases blood glucose levels; (available in an emergency kit)

glucose: a simple sugar obtained from carbohydrates in food; the body's source of quick energy after a meal

glycogen: the form in which glucose is stored in the liver and muscles

glycosuria: the presence of sugar in the urine; also called glucosuria

glycosylated hemoglobin test: a monitoring test to measure the amount of sugar bound to hemoglobin; this indicates the average blood glucose levels over a several-month period (when blood sugar levels rise, glucose in the blood attaches to hemoglobin, the red blood cell pigment, and remains for the life of the red blood cell, about 120 days)

hyperglycemia: high blood glucose (sugar) levels

hyperlipidemia: a general term for the presence of excessive amounts of fats (e.g., cholesterol and triglycerides) in the blood

hypertension: high blood pressure; blood pressure consistently above normal range, which is about 120/80 mm Hg

hypoglycemia: low blood sugar levels

impaired glucose tolerance: a term to describe blood glucose levels falling between normal and diabetic range; not considered a form of diabetes

insulin reaction: a group of symptoms that occur when blood sugar levels drop too low (below about 50 mg/dL) in a diabetic person taking insulin; the reaction is caused by too much insulin, too much exercise, too little food, or other factors

insulin: a hormone produced by the beta cells in the islets of Langerhans in the pancreas; helps glucose enter the body cells, where it is used for energy

islets of Langerhans: groups of cells in the pancreas; the islets contain beta cells, alpha cells, and

delta cells

ketoacidosis: a dangerous condition in which ketone levels build up in the blood and ketones are "spilled" into the urine

ketones (ketone bodies): waste products produced when fats are broken down for energy

ketonuria: the presence of ketones in the urine

metabolic: pertaining to the physical and chemical changes that occur in the body

microalbuminuria: the presence of very small amounts of protein in urine; a very early sign of kidney damage

myocardial infarction (M.I.): damage to the heart muscle, caused by blockage of one or more of the coronary arteries; a heart attack

nephropathy: kidney damage

neuropathy: disease of the nerves

oral glucose tolerance test (OGTT): a (rarely necessary) diagnostic test for diabetes; the patient fasts overnight and several blood samples are drawn the next morning after the patient drinks a sugary drink

oral hypoglycemic drugs: drugs taken by mouth by some patients with Type II to help lower blood glucose levels; these drugs do not contain insulin, but help the body use effectively the insulin it has

pancreas: a large gland behind the stomach; contains groups of cells, including beta cells, which secrete insulin; also secretes a digestive juice into the small intestine

paresthesia: a feeling of numbness, prickling, or tingling, sometimes pain

polydipsia: excessive thirst

polyphagia: excessive appetite or overeating

polyuria: frequent urination

random plasma glucose test: a diagnostic test for diabetes, performed without concern for the time of the most recent meal

renal threshold: the blood sugar level at which the kidneys "spill" excess sugar from the blood into the urine; the average is about 180 mg/dL, but wide variation exists

retinopathy: disease of the retina, the light-sensing tissue of the eye

secondary diabetes: a condition in which the pancreas or another organ is damaged by disease, chemicals, or drugs, causing interference with insulin production

somatostatin: a hormone produced by the delta cells of the islets; helps regulate blood glucose levels by controlling release of insulin and glucagon between meals

somatotropin (growth hormone): a hormone produced by the pituitary gland; increases blood glucose levels

stroke: sudden loss of consciousness, followed by paralysis; caused by hemorrhage in the brain or formation of an embolus or thrombus that blocks an artery; also called cerebrovascular accident (CVA)

Type I diabetes: the type of diabetes in which the pancreas produces no insulin or extremely small amounts; people with Type I need to take insulin injections in order to live

Type II diabetes: the type of diabetes in which the body doesn't use its insulin effectively or doesn't produce enough insulin

vascular: pertaining to blood vessels