



# YMCA Awards

Level 3 Promoting wellness  
through client motivation and  
interaction

2018

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## Diabetes

# Diabetes

- Diabetes is a condition where the amount of glucose in the blood is too high because the body cannot use it properly. This is due to the pancreas not producing enough (or any) insulin that helps glucose enter the body's cells, or the insulin that is produced does not work properly (insulin resistance)
- **Insulin** is the hormone produced by the pancreas that allows glucose to enter the body's cells, where it is used as fuel for energy
- **Glucose** comes from digesting carbohydrate and is also produced by the liver

## **Pre-diabetes**

Blood sugar levels are above normal range and the risk of developing full-blown diabetes is increased

## **Type 1 diabetes**

Can develop at any age but usually appears before the age of 40 but most commonly diagnosed in childhood

## **Type 2 diabetes**

Usually appears over the age of 40, though in South Asian people, who are at greater risk, it often appears from the age of 25. It is also becoming more common in children, adolescents and young people of all ethnicities

## Risks in diabetes

**Hypoglycaemia** – Low blood sugar level

**Diabetic ketoacidosis (DKA)** – Lack of insulin means the body cannot use glucose for energy so the body breaks down other body tissue as an alternative energy source. Ketones are produced and these are poisonous chemicals which can cause the body to become acidic (acidosis)

**Hyperosmolar hyperglycaemic state (HHS)** – This occurs in people with type 2 diabetes who experience very high blood glucose levels (over 40mmol/l)

# Long-term complications of diabetes

Problems with:

- Eyes (retinopathy)
- Heart (cardiovascular disease)
- Kidneys (nephropathy)
- Nerves and feet (neuropathy)

- There is nothing that can be done to prevent type 1 diabetes but many cases of type 2 diabetes can be prevented or delayed by maintaining a healthy weight, eating well and being active
- Individuals with type 1 and type 2 diabetes often need medication (like insulin) to control their diabetes
- Diabetes medication lowers blood sugar levels
- Activity can affect blood sugar levels both during and after exercise therefore diabetics will need to test their levels more often before, during and after any physical activity



## **Risk factors for type 2 diabetes**

- Being overweight
- A diet high in fat and sugar
- Waist measurement more than 80cm in women and 94cm in men
- Certain ethnic backgrounds
- A parent, brother or sister with diabetes
- Previous high blood pressure, heart attack or stroke
- Polycystic ovaries, gestational diabetes or given birth to a baby weighing over 10 pounds
- Schizophrenia, bipolar illness or depression or taking antipsychotic medication

## Common symptoms

- Going to the toilet a lot, especially at night
- Thirst
- Tired all of the time
- Losing weight without trying to
- Cuts and wounds take longer to heal
- Blurred vision
- Thrush (high levels of glucose being passed in the urine are a perfect breeding ground for the bacteria which cause thrush)

An important part of managing diabetes is to eat a healthy, balanced diet

The general healthy eating guidance applies for diabetics as well as eating regular meals and regulating portion sizes

Carbohydrates affect blood glucose levels, so individuals should be conscious about the amounts eaten

It is important for individuals with diabetes to see a registered dietitian and have regular reviews

## Physical activity can:

- Reduce the risk of getting type 2 diabetes
- Aid weight loss and maintain a healthy weight
- Increase the amount of glucose used by the muscles for energy
- Help the body use insulin more efficiently
- Help reduce the amount of insulin an individual needs to take
- Reduce stress and anxiety
- Improve sleep

