



## Topic

# Best Evidence Summary for Prevention of Type 2 Diabetes for Adults who are at risk of getting Type 2 diabetes

(NOT suitable for pregnant women – see other guidelines)

Diabetes is a disease that affects the body's ability to control glucose (sugar) levels.

### There are two main types of diabetes:

- Type 1 – when the body can't produce enough insulin, which is a substance that helps control **glucose**. People with Type 1 diabetes need to be given **injections of insulin** to stay well.
- Type 2 – when the body is still making some insulin, but it is not able to be used properly by the body. Regular medication is needed to help control glucose. (5)

### Type 2 diabetes can be prevented or delayed by:

- **Walking** or any other exercise or movement for at least **30 minutes a day**
- Eating foods that release **glucose** more slowly than the foods which give a quick release of sugar –slow release foods are called **low GI** (low glycaemic index foods)
- Lose at least **5-7% of weight**. So a 100 kg person who loses 5-7kgs reduces their risk of Type 2 diabetes or delays getting Type 2 diabetes. (5)

Health professionals should encourage and support patients to try these things first. Some patients may still need medication and/or surgery to help them. When needed, the evidence suggests that medications such as **metformin, acarbose, rosiglitazone and orlistat** are effective in preventing/delaying the onset of type 2 diabetes in high risk individuals. For high risk people who are very overweight (morbidly obese) bariatric (stomach) surgery can prevent or delay progression to type 2 diabetes. (5)

### Why worry about Type 2 diabetes?

Type 2 diabetes has a major impact on health and the cost of health care. Type 2 diabetes causes the fine blood vessels in the body to block up and not work properly, which can lead to:

- heart disease and stroke
- foot sores that lead to ulceration, gangrene and lower limb amputation (people often lose feeling in their feet and sores are hard to heal- important to talk about foot care and regular checking of feet)
- kidney failure
- problems with eyes (Type 2 diabetes is the most common cause of blindness in people under 60 in Australia)
- erectile dysfunction (problems for men having sex)

### Who is at risk for developing type 2 diabetes?

- People with a family history of Type 2 diabetes
- Men
- Some ethnic groups -people born in Southern Europe, in North Africa and the Middle East or in the Pacific Islands and South Asia and especially **Aboriginal and Torres Strait Islander peoples**
- People who were born with a low birth weight
- People who are **overweight or use to be obese**
  - A high **BMI** (body mass index- the measure of overall fat in the body) is a significant predictor of type 2 diabetes.
  - Obese men are at higher risk than obese women, especially those with fat deposited within the abdomen around the body organs

- People who do little or no physical activity – **sedentary**
- Age increases the prevalence and risk until age 75
- Dietary intake – people who don't eat a lot of high GI, fatty foods
- People who smoke
- People who have a lot of stress in their lives
- People who have other illnesses or conditions such as
- Gestational Diabetes Mellitus (GDM) –diabetes in pregnancy
- Polycystic Ovary Syndrome
- The Metabolic Syndrome (5)

## What can practitioners do?

- Identify people at high risk by using The Australian Risk Assessment Tool (AUSDRISK) ([www.diabetesaustralia.com.au/For-Health-Professionals/Diabetes-National-Guidelines/](http://www.diabetesaustralia.com.au/For-Health-Professionals/Diabetes-National-Guidelines/) p117)
- Risk assessment should begin at age 40 or **from age 18 in Aboriginal and Torres Strait Islanders\***.
- Risk assessment should be repeated every 3 years.
- Educate about lifestyle, -activity, diet, risk factors (5)

## The key message from the evidence is that Type 2 diabetes can be prevented or delayed by:

- early detection of risk, through the use of appropriate assessment tools
- community and individual education about risk factors
- regular review and support with Type 2 diabetes prevention efforts and/or management

This will reduce the significant burden on people, their families, and the health resources of the country. Aboriginal Health Practitioners can make a difference to improved outcomes for Aboriginal communities by helping people know their risk for Type 2 diabetes, educating about the prevention or delay of this disease and using best practice for management.

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