

Aboriginal health issues - diabetes

Aboriginal and Torres Strait Islander Australians have the fourth highest rate of Type II diabetes (non-insulin dependent diabetes mellitus, or NIDDM) in the world. Estimates vary, but it is thought that between 10 and 30 per cent of Aboriginal and Torres Strait Islanders have Type II diabetes. This rate is about two to four times higher than the rate for non-indigenous Australians. The incidence of gestational diabetes (diabetes in pregnancy) is also two to three times higher among Aboriginal and Torres Strait Islander women than in the general Australian population.

Kidney failure is a serious complication

Unmanaged diabetes can result in kidney failure because high blood sugar levels damage the millions of tiny filtering units in each kidney. Aboriginal people are only two per cent of the Australian population, but they account for around nine per cent of all new patients with kidney failure - end stage renal disease (ESRD). Diabetes is an important part of increased ESRD in Aborigines. A person with ESRD has no kidney function at all, and must rely on dialysis or have a kidney transplant operation. Other complications of diabetes include:

- **Retinopathy** - which can cause blindness
- **Neuropathy** - which can cause leg ulcers and lead to amputation
- **Coronary artery disease** - diabetes is an important risk factor.

A range of causes

The high rate of diabetes among Aboriginal Australians is thought to be caused by a number of factors working in combination including:

- Genetic susceptibility
- Diet
- Obesity
- Lack of physical activity
- Gestational diabetes
- Low birth weight
- Poor standard of living
- Reduced access to medical care.

Genetic susceptibility

Some researchers suggest that Aboriginal people have a 'thrifty genotype', which helped to support their traditional hunter-gatherer lifestyle. This means their bodies are genetically programmed for glucose intolerance and high blood cholesterol levels, so that body weight can be maintained during lean times. However, the Western diet - readily available to modern Aboriginal people - makes obesity, diabetes and cardiovascular disease more likely.

Dietary changes

The tendency for the modern Aboriginal diet to be high in fats and sugars but low in carbohydrates, fibre and nutritional value is a major cause of diabetes. In many cases, limited access to a range of fresh, wholesome foods means that many Aboriginal children are undernourished. It is thought that inadequate nutrition during childhood may increase a person's risk of developing Type II diabetes later in life.

Obesity and abdominal body fat

An obese person is 10 times more likely to develop Type II diabetes than a person of normal weight. Around six out of 10 Aboriginal and Torres Strait Islander people are either overweight or obese. Body fat stored around the abdomen (rather than the hips and thighs) is a substantial risk factor, and around 75 per cent of Aboriginal women carry too much body fat around their abdomen. Type II diabetes is more common in Aboriginal women than Aboriginal men.

Lack of physical activity

Traditionally, Aboriginal people led physically active lives. With the adoption of Western diets, there is no longer any need to hunt for wild animals and gather uncultivated plants. A sedentary lifestyle is a known risk factor for obesity and the development of Type II diabetes.

Gestational diabetes

In some women, pregnancy hormones increase the body's resistance to using insulin. This causes gestational diabetes, a temporary form of diabetes that tends to resolve without treatment after childbirth. However, the risk of developing Type II diabetes in later life is increased. The incidence of gestational diabetes is two to three times higher among Aboriginal and Torres Strait Islander women than in the general Australian population.

Low birth weight

Some studies indicate that low birth weight is associated with an increased risk of developing Type II diabetes later in life, regardless of any other risk factors. The reason for this is not understood and it remains controversial. An Aboriginal woman is twice as likely (12.4%) to have a low birth weight baby than a non-Aboriginal woman (6.2%).

Poor standard of living

There is a link between health problems and low socioeconomic status. Research shows that a person who has a limited income, low level of education and few employment prospects is more likely to engage in behaviours that increase the odds of disease, such as smoking cigarettes. Aboriginal and Torres Strait Islander people are among the most economically disadvantaged of all Australians. This makes them prone to developing Type II diabetes, and financially and culturally ill-equipped to deal with it.

Reduced access to medical care

Research suggests that culturally sensitive medical care is limited, especially for Aboriginal Australians who live in rural or remote areas. This means that Aboriginal people with Type II diabetes are at an increased risk of complications as a result of unmanaged diabetes. Some of these complications include:

- Bacterial infection
- Retinopathy (a major cause of blindness)
- Neuropathy (nerve damage)
- Coronary heart disease
- Kidney disease
- Death.

Where to get help

- Your doctor
- Juvenile Diabetes Research Foundation Australia Tel. (03) 9696 3866
- Diabetes Australia Victoria Tel. (03) 9667 1777 or 1300 136 588
- Kidney Health Australia Tel. (03) 9866 3300
- Kidney Health Australia Information Line Tel. 1800 4 KIDNEY (543 639), TTY 1800 005 881
- Koori Diabetes Services Tel. (03) 9416 4266
- Victorian Aboriginal Health Service Co-op Ltd Tel. (03) 9419 3000

Things to remember

- A major health concern for Aboriginal and Torres Strait Islander people is the high rate of Type II diabetes (non-insulin dependent diabetes mellitus, or NIDDM).
- Between 10 and 30 per cent of Aboriginal and Torres Strait Islander Australians have Type II diabetes, which is about two to four times higher than the rate for non-indigenous Australians.
- Risk factors include genetic susceptibility, diet, sedentary lifestyle, obesity and poor standard of living.

This page has been produced in consultation with, and approved by:

Juvenile Diabetes Research Foundation (JDRF)

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