

## **Diabetes: Key risk factor of heart disease**

During National Diabetes Awareness Week, which runs from 12 – 17 November, the Heart and Stroke Foundation SA would like to grab your attention if you are a diabetic, because having diabetes dramatically increases your risk of having heart disease or stroke. We also urge all non-diabetics to get their blood sugar tested for this potentially life-threatening condition.

Although there is no cure for diabetes - with careful monitoring and healthful lifestyle changes, diabetics can avoid complications and enjoy a long, productive life. To reduce your risk of cardiovascular disease, learn all you can about the condition.

### **What is diabetes?**

Diabetes occurs when the level of glucose (sugar) in your blood is too high – either because your body doesn't produce enough insulin or your body does not effectively use the insulin that it does produce. Your body needs insulin to carry sugar from your bloodstream into your body cells where it is used for energy. If there is too little insulin, your blood sugar levels will continue to rise, as glucose is not removed from your bloodstream.

A screening (finger prick) blood test can be done at a clinic or pharmacy to give you a snapshot of how high your blood sugar level is. A normal fasting blood glucose level is between 4-6 mmol/l, while for non-fasting 4-10 mmol/l is acceptable. Levels above these limits will require additional *fasting* blood glucose testing at your doctor, where levels greater than 7 mmol/l would be used as a diagnosis for diabetes.

There are 2 main types of diabetes – Type 1 (insulin dependent) and Type 2 (also known as maturity onset or non-insulin dependent diabetes). Type 1 usually affects younger people while Type 2 tends to develop gradually in adults and is much more common. You are more likely to develop diabetes if you have one or more of the following risk factors:

- being overweight or obese
- physical inactivity
- family history of diabetes
- previous diabetes in pregnancy (gestational diabetes).

It has been estimated that there are about 1.5 million South Africans with diabetes, but there are many adults who have diabetes and don't know it, because it has not been diagnosed!

### **What are the symptoms and complications of diabetes?**

Some of the symptoms include: constant thirst, passing more urine than normal, tiredness, unexplained weight loss, blurred vision or regular episodes of thrush. These symptoms are a result of having too much glucose in the blood and not enough in the cells. In uncontrolled diabetes, high levels of glucose over many years can damage many different parts of the body:

- in the heart and blood vessels it aggravates atherosclerosis (hardening and narrowing of blood vessels by fatty deposits) - causing coronary artery disease, stroke and blood circulation problems
- in the eyes, causing reduced vision which may lead to blindness
- kidney disease and kidney failure
- ulcers, infections, gangrene, etc in the feet
- in the nerves, causing loss of sensation (especially in the feet and legs), pins and needles, and impotence

### **How does diabetes affect your heart?**

High glucose levels in the blood affect the walls of the arteries, making them more likely to develop atherosclerosis. Diabetes also increases the damage done by smoking, high blood pressure and high cholesterol. Type 2 diabetics often have higher triglycerides (a type of fat) and lower levels of HDL ("good") cholesterol.

People with diabetes are more likely to have high blood pressure. Diabetes can even affect the heart muscle itself, making it a less efficient pump. As diabetes can affect the nerves to the heart, symptoms of angina may not be felt in the usual way and may be passed off as indigestion or a stomach upset. This leads to delays and difficulties in diagnosing angina and heart attacks. As you can see, diabetes increases the risk of stroke and heart disease, especially if other risk factors are already present. The risks multiply! The good news is that there are things that you can do to control your diabetes, reduce your risks and stay healthy.

**If you are a diabetic, what can you do to reduce your risk of heart disease or stroke?**

- A healthy diet and medication (if necessary) is essential for control of blood sugar.
- Monitor and check your blood glucose levels regularly. Blood glucose levels should be between 4-6mmol/l before meals and less than 10mmol/l two hours after meals.
- Give up smoking.
- Check your blood pressure regularly and keep it below 130/80mmHg.
- Check and manage your cholesterol levels. Your goal should be to have: a total cholesterol under 5mmol/l, an LDL cholesterol of less than 3mmol/l, an HDL cholesterol of over 1.2mmol/l and a triglyceride level of less than 1.5 mmol/l.
- Aim for a healthy weight with a BMI of less than 25, a waist measurement of less than 80cm for women and under 94cm for men.
- Eat a healthy varied diet with small, regular meals including fibre-rich starches, beans, pulses and 5 portions of fruit and vegetables a day. Cut down on your total fat intake especially saturated fats from animal products. Sugar, salt and alcohol should only be used by well controlled diabetics and then only in limited quantities.
- Be more physically active – aim for at least 30 minutes of moderate exercise 5 days a week.
- Learn to deal with stress where possible - get the support you need and learn relaxation techniques.
- Look after your feet - report any cuts or problems to your doctor or nurse as soon as possible.
- Have an annual review with your doctor to check your long-term glucose control, blood pressure, cholesterol, weight, general circulation and that you are not developing any of the complications of diabetes.

**For dietary guidelines for diabetics, support, advice and more information on general heart health contact the Heart Mark Diet Line on 0860 223 222, email [heart@heartfoundation.co.za](mailto:heart@heartfoundation.co.za) or visit [www.heartfoundation.co.za](http://www.heartfoundation.co.za).**

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