

Cholesterol continued.

Know your numbers:

The target values are:	
Lipid Levels	mmol/l
Total cholesterol	< 5.0
LDL cholesterol	< 3.0
HDL cholesterol (women)	> 1.2
HDL cholesterol (men)	> 1.0
Triglycerides	< 1.7

NB! People who are at high risk for cardiovascular events will have individualised targets as advised by their doctor or specialist. This includes people who have/had:

- ♥ Coronary artery disease, heart attack, stroke, peripheral vascular disease
- ♥ Diabetes
- ♥ Familial hypercholesterolaemia (inherited high cholesterol)

What causes high cholesterol?

The most common cause of high cholesterol is too much saturated and trans fats in the diet. Other causes include underactive thyroid, chronic kidney failure or alcohol abuse. Some people have naturally high blood cholesterol levels, due to a hereditary condition called familial hypercholesterolaemia (FH).

If one family member is diagnosed with FH, it is vitally important that all members of the family have a full fasting lipogram done to test if they have FH.

How often should cholesterol be tested?

If your cholesterol levels are normal, you only need to test them again in a few years. But if your LDL ('bad') cholesterol is high or you have a family history of high cholesterol or heart disease, have it checked every six months, or according to your doctor's instructions. Children don't need to have their levels tested unless they have a family history.

How can cholesterol levels be lowered?

Diet, physical activity and lifestyle changes are critical. Depending on your risk profile, your healthcare professional may recommend medication as well.

For more information, visit www.heartfoundation.co.za, call us on 021 447 6268, or call our Heart and Stroke Health Line on 0860 1 HEART (0860 1 43278).

Blood Pressure

High blood pressure (hypertension) is known as the 'silent killer' as there are rarely symptoms or visible signs warning you that your blood pressure is high. Some people may not know they have hypertension until they have trouble with their heart, brain or kidneys. High blood pressure increases your risk of having a stroke.

About one in four South Africans between the ages of 15 and 64 years suffers from high blood pressure. It is one of the leading causes of heart attacks, strokes, kidney failure and premature death.

What is high blood pressure?

Blood pressure is the pressure of the blood in arteries that is needed to keep blood flowing through the body.

A blood pressure measurement is made up of two parts: systolic and diastolic. Systolic pressure (SBP) occurs during heart contraction and diastolic pressure (DBP) during the period of heart relaxation between beats. This is why a measurement is expressed as one figure 'over' another, for example, 140/90 mm Hg (SBP/DBP).

A guide to blood pressure levels:

Normal	< 120/80 to 129/84
High Normal	130/85 to 139/89
Hypertension	
– mild	140/90 to 159/99
– moderate	160/100 to 179/109
– severe	>180/110

Have your blood pressure checked once a year (more often if there is a history!)

What harm does high blood pressure do?

An uncontrolled high blood pressure can lead to a heart attack, heart failure, stroke, kidney failure and damage to eyesight (glaucoma, blindness).

Take all blood pressure medication exactly as prescribed. Don't stop or change it unless advised to do so by your doctor.

September is Heart Awareness Month, with World Heart Day celebrated globally in September every year.

Diabetes

Diabetes mellitus is an abnormally high blood glucose (sugar) level caused by the inability of the body to either produce or respond to insulin properly. Insulin is a hormone necessary to carry glucose from the bloodstream into the cells where it is used for energy.

How does diabetes affect the heart?

Heart disease and stroke are the leading causes of death in diabetics. The constant high blood sugar causes narrowing of the arteries, increased blood triglycerides (a type of fat), decreased levels of HDL ('good') cholesterol, high blood pressure and heart attack. Diabetics are also more prone to the development of atherosclerosis and blood clot formation.

Smoking causes damage to blood vessels and therefore diabetic smokers are at higher risk. Additionally, when there is damage to the nervous system, the signals that should be sent to the brain to regulate heart rate and blood pressure may become blocked. Symptoms of a heart attack may be vague and ignored or passed off as indigestion.

What are the symptoms of diabetes?

- ♥ Constant thirst
- ♥ Unexplained weight loss
- ♥ Urinating more than usual
- ♥ Numbness/tingling in finger tips and toes
- ♥ Blurred vision/visual disturbances
- ♥ Skin infection due to slow wound healing
- ♥ Constant tiredness
- ♥ Increased hunger

Symptoms vary from individual to individual and elderly people may not present any symptoms.

How is it diagnosed?

A doctor needs to do a formal test to diagnose diabetes. You are required to fast for eight hours and a blood sample is taken to test the glucose level. Normal random blood glucose level is between 4 and 7.8 mmol/l.

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What you should know about Cardiovascular Disease



- ♥ 80% of cardiovascular disease can be prevented by lifestyle changes.
- ♥ Cardiovascular disease (CVD) refers to any disease of the heart and blood vessels. The most common are heart disease, strokes, heart attacks and heart failure.
- ♥ CVD is the leading preventable cause of death worldwide.
- ♥ The development of CVD starts in childhood.



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CVD risk factors

There are two types of risk factors – uncontrollable (things you can't change) and controllable risk factors (things you can change). The more risk factors you have, the higher your chances of developing CVD.

Uncontrollable:	
♥	Genetic – family history and race
♥	Age – your risk for heart disease and stroke increases with age
♥	Sex – women are less likely to survive a heart attack and their warning signs may be less obvious
Controllable:	
♥	High cholesterol levels
♥	High blood pressure (hypertension)
♥	Diabetes
♥	Inactivity
♥	Overweight and obesity
♥	Poor diet
♥	Harmful use of alcohol
♥	Smoking and tobacco products
♥	Stress

Heart attack, or myocardial infarction (MI)

What causes a heart attack?

Coronary artery disease (disease of the arteries to the heart) is the most common cause of heart attacks. When the diseased arteries become too narrow or a clot forms, blood flow to the heart is restricted. The heart muscle is left without oxygen, causing death of the muscle and leaving the heart unable to pump sufficient blood to the rest of the body.

How is it diagnosed?

A heart attack is diagnosed through the symptoms experienced (see below) as well as by the results of blood tests and an ECG (electrocardiogram).

What to look out for

Many will not admit that they are in trouble or acknowledge that the symptoms they experience are serious. **Recognising the warning signs and seeking medical treatment could save your life!**

It is important to know the 'warning signs' of a heart attack or stroke so that you, a friend or a family member know when you are in trouble and what to do.

Warning signs of a heart attack! Seek immediate help.

- ♥ Heavy pressure, tightness, crushing pain or unusual discomfort in the centre of the chest. This may feel like indigestion, spread to shoulders, arms, neck or jaw and last for more than a few minutes. It may stop or weaken and then come back
- ♥ Shortness of breath
- ♥ Other signs: breaking into cold sweat, nausea or light-headedness

As with men, the most common heart attack symptom for women is chest pain/discomfort, but women are more likely to experience other common symptoms, particularly shortness of breath, nausea, vomiting or back pain. Diabetics may experience heart attack symptoms as vague, and thus may pass them off as indigestion.



What to do if you think you or someone close by is having a heart attack

A heart attack is life threatening! You are more likely to survive a heart attack if you receive treatment in time. Phone for an ambulance immediately!

HEART FAILURE is caused by the inability of the heart to pump blood efficiently around the body. This occurs because of damage to the heart muscle as a result of various diseases.

ANGINA occurs when the heart muscle does not get as much blood, and therefore as much oxygen, as it needs. This usually happens because one or more of the arteries that supply blood to the heart muscle is narrowed or blocked, causing chest pain and discomfort.

CARDIAC ARREST happens when the heart stops beating – the heart's rhythm may become chaotic, preventing it from pumping effectively or it may stop altogether. The person is usually unconscious and not breathing, and death can occur within a few minutes.

What do you do if you witness a cardiac arrest

A cardiac arrest is an extreme emergency! Immediate cardiopulmonary resuscitation (CPR) and defibrillation is needed for any chance of survival. You can increase the person's chances of survival by calling for an ambulance and giving immediate CPR. Consider learning CPR.

Stroke

A stroke is sometimes called a 'brain attack' – it can injure the brain like a heart attack can injure the heart. Blood in the arteries that go to the brain carry oxygen and nutrients to the brain cells. When one of these arteries becomes blocked or bursts, blood cannot reach a part of the brain, so the brain cells get damaged and a stroke results. The severity of a stroke varies from a passing weakness or tingling in a limb to a profound paralysis, coma or death. Recognising the early warning signs of a stroke is critical and can mean the difference between life and death. The symptoms of stroke appear suddenly and often there is more than one symptom at the same time.

Warning signs of a stroke are sudden!

- ♥ Sudden weakness or numbness on one or both sides of the body
- ♥ Sudden loss of speech, or trouble talking or understanding speech
- ♥ Sudden loss of vision in one or both eyes
- ♥ Sudden severe or unusual headache
- ♥ Sudden unexplained dizziness, loss of balance, trouble with walking or sudden falls

Act FAST! Remember these critical steps:

F	A	S	T
FACE: Smile (is one side droopy?)	ARMS: Raise both arms (is one side weak?)	SPEECH: Say a sentence (is speech slurred, or impossible?)	TIME: Lost time could be lost brain, get to hospital FAST

TIA – a vital warning sign

A TIA (transient ischaemic attack) is similar but less severe than a full-blown stroke. Most TIAs last a short time (10–15 minutes) and the person will recover within 24 hours, so it is often called a 'warning stroke' or a 'mini-stroke'. They have the same symptoms as a stroke, but are less severe and won't usually cause permanent damage to the brain.

It is very important that a TIA is not ignored, as it can be a warning sign of a more damaging stroke in the future.

Effects of a stroke:

Different areas of the brain control various functions of the body including movement, speech, hearing and sight. A stroke causing damage to these areas of the brain will affect the functions they regulate. Consequently, some parts of the body may be paralysed or problems with speech may be experienced. Stroke affects people differently, but many make a good recovery. Rehabilitation plays a crucial role, and many stroke survivors are able to return to an active and fulfilling lifestyle!

How do I prevent a second stroke?

By positively managing your risk factors and following a healthy lifestyle, you can reduce the chance of having another stroke. It is important to take your medication regularly and as prescribed by your doctor.

Cholesterol

Cholesterol is a soft, fatty substance in the blood which plays an important role in cell membranes and hormones.

A high blood cholesterol level can slowly build up in the inner walls of arteries. If left unchecked, it can eventually form plaque – a thick hard deposit that can narrow arteries and make them less flexible. This process is called atherosclerosis. If a clot forms and blocks a narrowed artery that feeds the heart or brain, it can result in a heart attack or stroke. High cholesterol is one of the most important risk factors for cardiovascular disease.

Know your numbers:

Most people with high cholesterol feel perfectly healthy – there are usually no warning signs, which is why it is sometimes called a 'silent killer'. The only way to find out is to have a blood test.

For an accurate result, see your doctor. You may be required to fast (without food, liquids or pills) for at least nine hours before the test. If a total cholesterol level is high, it is important to know what type of cholesterol is high. Aim for a lower LDL ('bad' cholesterol) and higher HDL ('good' cholesterol) levels.

See the numbers on page 6 >