

Pledge with love!

As a Section 21 organisation, the HSFA would greatly appreciate your monetary support to continue to grow our community based initiatives. You can show your support by making a donation or bequest. Please see our fundraising details below:

Fundraising Number: 08800 329 0004
Banking Details | Nedbank Foreshore
Branch Number: 108 309 | Account Number: 108 324 8251

Kindly reference your name and provide your contact details so that we can send you a token of thanks.

Thank you for your generous and heartfelt contribution!



THE HEART AND STROKE FOUNDATION SOUTH AFRICA

What is the Heart and Stroke Foundation SA (HSFA)?

The Heart and Stroke Foundation SA is a community based NGO established in 1980 with the following vision and mission in mind.

Vision
To create a future where South Africans adopt healthy lifestyles and reduce the number of people who suffer or die from heart, stroke and blood vessel disease.

Mission
The HSFA's mission is to raise awareness, educate and drive research on the benefits and characteristics of a healthy lifestyle so that fewer South Africans experience disability or die from cardiovascular disease.

For more information visit www.heartfoundation.co.za or contact 021 403 6450 or Heart Mark Diet Line for free nutritional advice on 0860 223 222.

Exercise

Lack of regular physical exercise is a risk factor for chronic cardiovascular disease. In comparison to those who exercise regularly, inactive people double their risk of suffering a heart attack and have an increased risk of dying immediately after such an attack.

The heart is a muscle and needs exercise to stay fit and healthy. The heart of someone who exercises regularly will beat 45-50 times per minute compared to someone who does not exercise regularly whose heart will beat 70-75 times per minute. This means 36 000 extra beats per day and 13 million extra beats every year.

- The cardiovascular benefits of regular exercise:
- Reduces the risk of heart disease and stroke
 - Improves the efficiency of the heart
 - Improves 'good' cholesterol levels
 - Helps lower high blood pressure
 - Helps reduce and control body weight by decreasing body fat, increasing muscle and increasing metabolic rate
 - Helps control blood sugar levels and reduces the risk of developing diabetes
 - Helps to manage stress
 - Counters risk conditions (obesity, high blood pressure, poor cholesterol levels, poor lifestyle habits, etc.) that lead to heart attack and stroke
 - Delays/prevents chronic illnesses/diseases associated with aging
 - Smokers who exercise are twice as successful in their attempts to quit

Which types of exercise work best?

Beneficial physical activity not only includes the more demanding types. Walking, dancing, gardening, cycling, bowls, golf, swimming and other similar physical activity, including occupational, recreational and usual daily chores also contribute to well being.

To improve cardiovascular fitness, choose an activity that is rhythmic and repetitive (aerobic exercise) because it strengthens the heart.

Consult your doctor before starting an exercise programme.

Eat Well

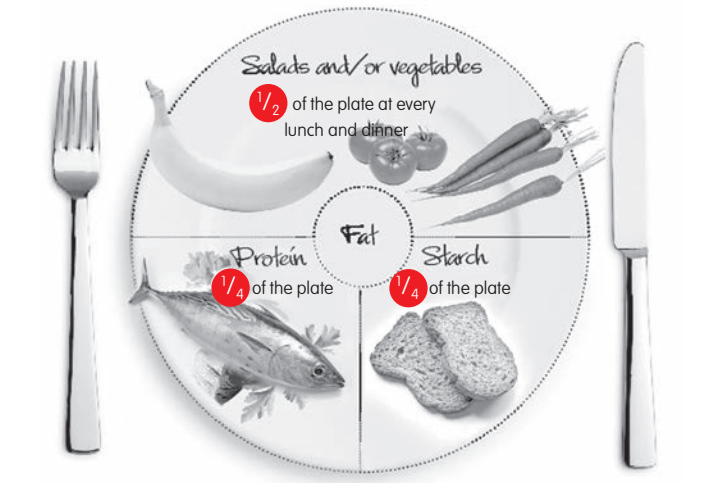
Living healthily, including regular exercise and a balanced diet, go a long way to reducing the risk of diseases of the lifestyle such as obesity, diabetes, hypertension, high cholesterol and cardiovascular disease.

The Heart and Stroke Foundation South Africa recommends:

- Eating a healthy, balanced diet including a variety of foods
- Eating smaller, more regular meals
- Making starchy foods, especially those rich in fibre, the basis of most meals

- Including at least 5 servings of fruits and vegetables every day
- Trying to include fatty fish as part of your diet at least twice a week
- Limiting the intake of red meat to 2-3 times per week. Try to regularly include legumes (beans, peas, lentils) as alternatives to meat
- Eating fats sparingly, limiting 'bad' fats and including more 'good' fats in your diet
- Limiting your daily intake of foods high in cholesterol such as egg yolks, organ meats, shrimps and prawns
- Limiting the intake of refined and sugary foods/drinks
- Having at least two servings of low fat milk/dairy products every day
- Using salt sparingly. Total intake should be limited to 1 teaspoon a day (6g), remembering that processed foods also contain a lot of hidden salts and may contribute more than half of your salt intake!
- That if you drink alcohol, to do so in moderation. Limit to 1 drink/day in women and 2 drinks/day in men
- Controlling your weight through regular physical activity (aim for at least 30 minutes 5 times a week) and a controlled energy intake

The healthy plate model



This model gives a great indication as to how you can portion your meals so that you are eating from every food group in a balanced manner. Ideally, you should base your diet on grains, vegetables and fruit; add moderate quantities of lean meat, poultry or fish, and low fat dairy products and limit the intake of fats and sweets.

Fighting 'bad' fats

- Rather eat more poultry (skinless) and fish than red meat
- Buy lean meats and trim off any visible fat before cooking
- Cut down on full cream dairy products, use low fat or fat-free products instead
- Replace butter and hard, brick margarines with soft, tub margarines
- Switch from low fat milk to skim milk
- Use low fat/fat-free cottage cheese instead of the likes of cheddar cheese
- Use non-stick pans and cooking sprays for grilling or stir frying
- Grill, steam or poach foods rather than frying them

Healthy Habits from a young age

To prevent heart disease in adults, we should start encouraging a healthy lifestyle in our children from a young age – a love of all healthy foods, encourage regular physical activity and distaste for smoking, will make it much easier for them later in life.

Our children are already at risk:

The Western culture has many negative effects on children. Children are physically inactive because they would rather watch television, play computer games or surf the Internet than play outside or participate in sports.

Children are also tempted to eat more fast/junk foods such as hamburgers, chips, pizzas, crisps, chocolates, ice cream, fizzy cold drinks and sweets. These foods are usually high in 'bad' fats (particularly saturated and trans fats) as well as sugar and low in fibre, micronutrients and antioxidants. Excessive intake of these foods may increase the risk of not only being overweight/obese, but also of heart disease and diabetes later in life. Unfortunately, these foods form a big part of socialising in children and are almost always readily available be it at home, at school or when visiting a friend.

Heart Mark

The Heart Mark is a guideline for consumers to instantly identify heart healthier products on the supermarket shelf and on the menu when eating out.



- Products on the supermarket shelf with the Heart Mark logo confirm that they:
- Are healthier choices
 - Have been tested by an independent laboratory
 - Are approved as part of the Heart and Stroke Foundation South Africa's eating plan
 - Meet stringent nutritional standards so that they are:

- lower in saturated fats
- lower in cholesterol
- lower in salt
- lower in added sugar
- higher in fibre (where applicable)

Categories of Heart Mark Products:

- Heart Mark products can be found in each of the food groups and include:
- Grain products (bread, cereal, rice, pasta)
 - Vegetables and fruit
 - Meat and alternatives (meat, poultry, fish, legumes, nuts and seeds, vegetarian products)
 - Milk and dairy products
 - Fats, oils and related products

See www.heartmark.co.za for a complete list of products approved by the Heart and Stroke Foundation SA.

Heart Mark Restaurant Programme:

- Menu items with the Heart Mark logo indicate that they are heart healthier options
- Meals have been approved by the HSFA and are still tasty and healthy
- Provides health conscious people the opportunity to pursue healthy eating habits even when eating away from home

Choose Heart Mark foods when eating out!

Excessive alcohol intake

Alcohol is not necessary for good health but if you do drink it, it should be in moderation.

Reasonable amounts of alcohol may protect against heart disease:

- Increase HDL ('good') cholesterol
- Have an anti-clotting effect on blood

This protective effect is greatest in men over 40 and post-menopausal women as they are the highest risk groups. There is little protective effect in younger people as they are generally not at high risk for heart disease. Drinking too much alcohol increases health dangers, including high blood pressure, heart failure and increased levels of triglycerides (a type of fat in the blood). Binge drinking can lead to a stroke. Other serious effects are heart muscle damage, heart rhythm disturbances and sudden cardiac death. It may also contribute to the development of obesity, diabetes and liver disease.

The Heart and Stroke Foundation SA advises: Drinking alcohol to reduce the risk of cardiovascular disease is not advised. However, if alcohol is consumed, it should be limited to:

- 2 drinks/day for men
- 1 drink/day for women

Drinking 3 or more alcoholic drinks/day increases the risk of high blood pressure, so more is not recommended.

Smoking

Smoking almost triples the risk of heart disease. It narrows blood vessels and expands blood clots, causing the cardiovascular equivalent of a traffic jam on the highway to your heart and brain. Reduce blood flow to the heart and you risk a heart attack. Reduce it to the brain and you risk a stroke.

Smoking causes heart disease by:

- Increasing blood pressure
- Increasing blood clotting
- Increasing carbon monoxide levels and reducing oxygen levels

Passive smoking:

Non-smokers who breathe second hand smoke suffer many of the diseases of active smoking. Second-hand smoke contains 5 times more carbon monoxide and 6 times more nicotine than first-hand smoking because the filter on a cigarette offers some protection for the smoker. Second-hand smoke causes a wide variety of health problems in children including bronchitis and pneumonia, exacerbation of asthma, middle ear infections, and glue ear, the most common cause of deafness in children.

Smoking during pregnancy:

Babies born to mothers who smoked (or are exposed to second hand smoke) while pregnant are more likely to be underweight, premature or stillborn. There is also an association with the risk of miscarriage and may even harm intellectual and behavioural development of the child. The child has a greater risk of sudden infant death syndrome, breathing problems and developing lung disease or diabetes later in his/her life. The harmful substances from smoking pass through breast milk, so with every cigarette smoked and any second hand smoke inhaled, the baby is smoking. Smoking reduces milk volume so smoking mothers may produce too little milk, causing the child to gain less weight and grow less efficiently than babies of non-smokers.

Stress

The effect of chronic stress on your mind, body, and heart are detrimental enough to warrant as much attention as confirmed risk factors like high blood pressure and high cholesterol. The more you can do to find healthy ways of managing stress today, the better your life (and heart) will be.

How your body responds to stress:

When you experience stress, your body goes through a series of physiological responses that feed into your nervous system and circulatory system and affect everything from hormones to heart rate.

The "fight-or-flight" response of the body during times of stress is well-documented. This instinctive response floods your body with adrenaline and cortisol, which increases heart rate, redirects blood flow to the muscular

system, releases fats into the bloodstream for use as energy, increases breathing rate, tenses muscles, and increases your blood's clotting ability—all of which are intended to help you fight off (or run from) an opponent. The only problem is, most often the cause of stress is not a saber-toothed tiger but a long day at the office. Your body doesn't know the difference, so it reacts to all stress in the same way. Over time, this can wreak havoc on your health physically, mentally, and emotionally.

How your heart is affected by stress:


- Stress affects your cardiovascular system in the following ways:
- Heart rate increases
 - The rate of blood flow speeds up, increasing blood pressure
 - The release of fatty acids into the bloodstream for energy increases cholesterol and triglyceride levels
 - Under chronic stress, the continued release of cortisol seems to have some effect on where fat is deposited in the body, most often in the abdomen

The effect of chronic stress on your heart:

- Over time, the physiological reactions to stress can take a toll on your cardiovascular system:
- Due to an increased heart rate, it's possible that your heart could take on an abnormal heart rhythm or you could have problems with the heart muscle itself.
 - Due to the increase in blood pressure, your cardiovascular system can have all of the usual associated problems with hypertension including increased risk for heart disease and stroke.
 - Due to the increase in cholesterol and triglycerides in your bloodstream, there is potential for your arteries to thicken with plaque over time, which could lead to coronary artery disease or heart attack.
 - The deposit of fat in the abdomen, leading to an "apple" shape, is a marker of metabolic syndrome and is considered a risk factor for heart disease.


Chronic stress negatively affects your health. Finding healthy ways to manage stress is vital to your future, because we all know that stress isn't going away anytime soon but it is manageable.

Contact the Stress and Anger Management Centre of South Africa on 021 554 3661 or www.anger.co.za to learn more about stress management.



THE HEART AND STROKE FOUNDATION SOUTH AFRICA

UNDERSTANDING CARDIOVASCULAR DISEASE



Cardiovascular disease

Cardiovascular disease refers to any disease of the heart and blood vessels.

The most common ones are diseases of the heart muscle, strokes, heart attacks, heart failure and heart disease caused by high blood pressure.

1 in 3 men and 1 in 4 women will suffer from a heart condition before the age of 60! You can prevent yourself from becoming a statistic by learning more...

CVD Risk Factors

Uncontrollable:

- Genetics : Family history
- Age: One's risk for heart disease and stroke increases with age
- Sex: Women are less likely to survive a heart attack and their warning signs are less obvious
- Ethnic group

Controllable:

- High cholesterol levels and inherited high cholesterol (FH)
- High Blood Pressure (Hypertension)
- Diabetes
- Lack of physical activity
- Overweight
- Excessive alcohol intake
- Smoking
- Stress

Heart attack (aka myocardial infarction (MI))

When the diseased roughened arteries of the heart become too narrow or a clot forms, blood flow to the heart muscle is restricted. The heart muscle is left without oxygen, causing death of a segment of the muscle and leaving the heart unable to pump sufficient blood to the rest of the body. This is characterised by a sudden severe chest pain that may spread down one or both arms and to the neck.

What causes a heart attack?

Coronary artery disease (disease of the arteries leading to the heart) is the most common cause of heart attacks. Although a heart attack is often a sudden and dramatic event, it is the result of a gradual process over many years. The build up of fatty deposits in the walls of the arteries leading to the heart (this process is known as atherosclerosis) causes gradual narrowing of these arteries and can cause a total blockage of the artery and the blood flow to the heart muscle, causing a heart attack.

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). The blood tests indicate levels of enzymes that are released into the bloodstream when the heart muscle is damaged and the ECG traces the electrical pattern of the heartbeat and can indicate areas of damage. These results determine the severity of the attack and degree of damage.

Possible warning signs for a heart attack?

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!

Having heart disease, a family history of heart disease or even one or two risk factors for the development of heart disease (high blood cholesterol, high blood pressure, being overweight, etc.) puts you at risk. 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.

Watch out for the following, but be aware that symptoms do vary from person to person:

- 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/or last for more than 15 minutes. It may stop or weaken and then return.
- Sweating, sickness, faintness or shortness of breath may be experienced
- There may be a rapid, weak pulse
- Sharp stabbing pain in the left side of the chest is usually NOT heart pain

What to do?

When these symptoms are experienced, it is important to act immediately. Call an ambulance, as medical help is most important in the first few hours after the attack. Rest quietly by sitting or lying down – sit up if breathless or lie flat if faint. CPR (cardiopulmonary resuscitation) may be necessary.

Other cardiac events:

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. The circulation becomes slow causing excess fluid to be retained in the body.

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. Chest pain and discomfort are experienced.

Cardiac arrest arises 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, not breathing and his/her skin turns pale or blue. Without blood circulation, brain damage begins after about 4 minutes and death can occur after about 10 minutes.

Cardiac arrest may occur as a result of a heart attack, but those who suffer from a heart attack do not necessarily experience cardiac arrest or need CPR. Other common causes are electric shock, drowning, drug overdose, suffocation and trauma.

Someone who suffers a heart attack and goes into cardiac arrest requires skilled help immediately. Call an ambulance and start CPR. If you don't know CPR, open the airway and start rescue breathing.

Stroke

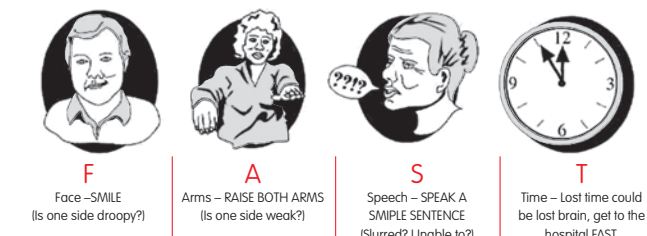
Approximately 60 people die every day in our country as a result of strokes! But the good news is, a stroke doesn't have to be a death sentence – the recovery rate is high, but rehabilitation is important.

A stroke, also known as a cerebrovascular accident (CVA) or brain attack, occurs when the blood flow to the brain is interrupted. This could either happen when a blood vessel to the brain ruptures, causing bleeding, or becomes blocked by a blood clot. The affected brain cells then start to die because of

a lack of oxygen and other nutrients. 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/symptoms 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:

- Sudden weakness or numbness of the face, arm and leg on one side of the body
- Loss of speech, or trouble talking or understanding speech
- Dimness, blurring or loss of vision, particularly in one eye only
- Unexplained dizziness, unsteadiness or sudden falls, especially along with any of the above symptoms
- Confusion



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 and problems with speech may be experienced. Stroke affects people differently, but many make a good recovery. Many stroke survivors are able to return to an active and fulfilling lifestyle!

The rehabilitation process:

The extent and rate at which people recover from a stroke varies greatly, but most progress takes place in the first 18 months after the stroke. Some people will find that their symptoms improve considerably in the early weeks after their stroke, while recovery in the subsequent months may be more gradual. For a successful recovery, stroke survivors may benefit from the help of a rehabilitation team including: physiotherapist, occupational therapist, dietician, speech therapist and social worker. Often old skills are lost and new ones need to be taught. The goal of rehabilitation should be for the person who has had the stroke to be as independent and productive as soon as possible. The support and co-operation of family and friends is essential in the recovery process.

General tips for recovery

- Have adequate rest in the early days after your stroke
- Take each day as it comes and set small realistic goals
- Do things at your own pace
- Revive old interests or take up a new hobby or activity

Stroke-specific dietary tips:

- Chewing and swallowing difficulties:
 - Serve soft, mashed foods, thickened drinks (soup, fruit juice, etc.)
 - Very hot/cold foods may be better tolerated than lukewarm/ bland foods

- Avoid/ limit thin liquids, milk, coffee, tea and alcohol
- Hard, crisp, tough and sweet foods that can contribute to drooling

Constipation:

- Adequate fibre intake (whole grains, bran, dried fruit and fibre-enriched supplements/bulking agents)
- Adequate fluid intake
- Physical activity on a daily basis should stimulate your digestion
- Avoid/limit gas-forming foods and beverages (e.g. dried beans, peas, lentils, cabbage, broccoli, onion, garlic)

Decreased appetite:

- Smaller more frequent meals (5-6 smaller meals instead of 3 main meals)
- Meals should be appetising in appearance and taste and provide sufficient nutrients
- Avoid/limit food low in energy and nutrients e.g. tea, coffee and diet drinks

How to prevent a second stroke?

By positively managing your risk factors, you can reduce the chance of having another stroke. It is important to take your medication regularly and as prescribed by your doctor. Rehabilitation plays a crucial role in helping stroke survivors to regain as much independence as possible.

Cholesterol

Cholesterol is a soft, waxy, fatty substance in the blood which plays an important role in cell membranes and hormones. Your liver produces all the cholesterol your body needs, but when you eat too many foods that are high in saturated fats and cholesterol (mostly animal foods) it can make your blood cholesterol levels rise.

A high blood cholesterol level is dangerous to your health because it can slowly build up in the inner walls of arteries. If high blood cholesterol levels are left unchecked, together with other substances, it can eventually form plaque – a thick hard deposit that can narrow your 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. The higher your cholesterol level and the more risk factors you have, the higher your risk!

Know your numbers:

Most people with high cholesterol feel perfectly healthy – there are usually no warning signs indicating high levels. The only way to find out is to test for it.

This is a simple blood test that your doctor can perform. To get an accurate result, you would have to fast (without food, liquids or pills) for at least 9 hours before the test. If you have a high total cholesterol level, it is important to know what type of cholesterol is high. The aim is to have lower LDL and higher HDL

levels. 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

High risk individuals:

- Established Atherosclerotic Disease i.e. Heart Attack, Stroke, Peripheral Vascular Disease
- Diabetics type I and II
- Familial Hypercholesterolaemia
- Target values for high-risk individuals are: total cholesterol < 4.5 mmol/l for and LDL cholesterol < 2.5 mmol/l

80% of westernised South Africans have raised blood cholesterol, of which 20% have levels that place them at high risk of developing heart disease.

What causes high cholesterol?

The most common cause of high cholesterol is too much saturated fat in the diet. Some people may have high levels as a result of an underactive thyroid gland, chronic kidney failure or alcohol abuse. Also, some people have naturally high blood cholesterol levels, due to a hereditary condition called familial hypercholesterolaemia (FH).

If one family member is diagnosed as having 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 'bad' cholesterol is high or you have a family history of high cholesterol or heart disease, have it checked regularly. Children don't need to have their levels tested unless they have a family history.

How can cholesterol levels be lowered?

Depending on your risk profile and your cholesterol levels, your healthcare professional may recommend diet and lifestyle changes and/or medication.

Blood Pressure

High blood pressure (hypertension) is known as the 'silent killer' as there are rarely visible symptoms warning you that your blood pressure is high. In more advanced cases headaches, visual disturbances, nosebleeds, nausea and vomiting, sleepiness and even seizures may be experienced.

Two out of three people with high blood pressure are unaware of the con-

dition.

It is estimated that 1 in 4 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 your arteries that is needed to keep blood flowing through your body. High blood pressure develops if the walls of the larger arteries lose their natural elasticity and become rigid, and the smaller blood vessels become narrower.

A blood pressure measurement is made up of two parts: systolic and diastolic. Systolic pressure (SBP) occurs in arteries 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 of 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

Please consult your doctor if you receive a reading higher than normal.

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 or stroke, kidney failure and damage to eyesight (glaucoma, blindness). The increased workload can also make the heart become too weak, less efficient and eventually lead to heart failure. Tiredness, shortness of breath and swollen ankles are often experienced.

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

As a service to the community, the Heart and Stroke Foundation SA offers FREE blood pressure screenings at shopping malls and public centres throughout Cape Town, visit www.heartfoundation.co.za for more information or call 021 403 6450 to arrange a screening in your area or at your organisation. Know your status today!

Diabetes

Diabetes Mellitus, the full name, 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 body cells where it is used for energy. If there is too little insulin, blood glucose levels continue to rise, as glucose is not removed from the bloodstream.

How diabetes affects the heart?

Heart disease is the leading cause of diabetes-related deaths because the constant high blood sugar is associated with narrowing of the arteries, increased blood triglycerides (a type of fat), decreased levels of HDL ("good") cholesterol, high blood pressure and heart attack. As one gets older, blood vessels are damaged and narrow progressively (atherosclerosis). This could lead to a heart attack or stroke. (Diabetics are more prone to the development of atherosclerosis and blood clot formation.)

Smoking also 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 are blocked. Symptoms of a heart attack may be vague and ignored or passed off as indigestion.

What are the symptoms for diabetes?

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

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

How is it diagnosed?

A blood sample is taken to test for the glucose level. High blood glucose will usually indicate diabetes. If glucose is detected in a urine sample, it also indicates diabetes and will be confirmed with a blood test. A normal blood glucose level is between 4 and 8 mmol/l.

What are the CVD dangers of diabetes?

Those with uncontrolled diabetes can experience complications as the disease progresses. In the long term, Atherosclerosis (hardening of arteries), heart disease and stroke may occur.