

LIFE AFTER

Stroke

A PRACTICAL GUIDE FOR STROKE PATIENTS



THE HEART
AND STROKE
FOUNDATION
SOUTH AFRICA

angela 



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WHAT IS A Stroke?

A stroke is sometimes called a 'brain attack'. A stroke can injure the brain like a heart attack can injure the heart. It happens when the blood supply to part of the brain is interrupted. 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, the flow of blood cannot reach a part of the brain, so the brain cells in this part of the brain get damaged and the person develops the symptoms of a stroke. There are two main types of strokes:

'Ischaemic strokes' caused by blood clots

A small blood clot may form in a blood vessel and then block an artery in the brain. Sometimes this blood clot may develop in another part of your body, and then travel in the blood vessels to the brain and get stuck, blocking the blood vessel. The medical term for this is an 'embolus'.

'Haemorrhage strokes' caused by bleeding

When a blood vessel in the brain bursts, it bleeds into the brain and damages it. The medical name for this is 'cerebral haemorrhage', which simply means 'bleeding in the brain'. Only two in 10 strokes are caused by bleeding. The majority are caused by clots.

What is a TIA (Transient Ischaemic Attack)?

A TIA is less severe than a full-blown stroke. TIAs usually last a short time (10 - 15 minutes) and the person will recover within 24 hours. It is often called a 'warning stroke' or a 'mini-stroke'.

If you have a TIA, you will have the same symptoms as if you were having a stroke, e.g. weakness on one side of the body, droopiness on one side of the face, or loss of speech (see 'Conditions to watch out for' section of this publication for warning signs of acute stroke). A TIA does not usually cause permanent damage to the brain.

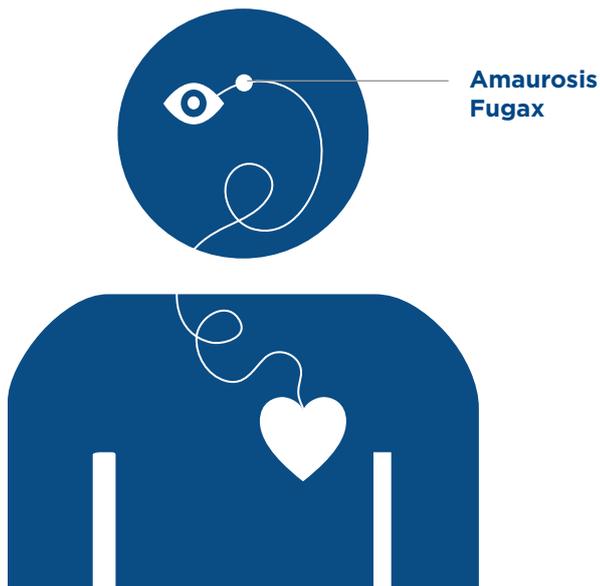
It is very important that a TIA is not ignored!

It is a warning sign that you could have a more severe and damaging stroke in the future, and you should take it very seriously. It is vital to get immediate medical attention if you think you are having a TIA, as the proper medical treatment can reduce your chances of having another TIA and prevent a fatal or disabling stroke.



Amaurosis Fugax

Amaurosis Fugax is a medical term that simply means a blood clot has become lodged in the blood vessel at the back of the eye, causing loss of vision. This is a type of TIA that affects the eye and should be investigated by your doctor to prevent a stroke from occurring in the future. People often say it feels like the 'light is fading and a curtain is being pulled over the eye'. The blood clot usually breaks up naturally and the eyesight recovers.



Will I need an operation after a TIA?

Operations are not often needed to prevent another stroke or TIA. A few patients who have narrowed blood vessels in the neck may need an operation. The doctor who sees you in the ward or clinic will arrange tests to check for blood vessel narrowing, if he or she feels it is necessary. Not everyone requires this test to be done. See page 28 for more information on surgery, if required.

Will it happen again?

If you have had a stroke, you are at risk of having another stroke in the future. But remember, you can do a lot to stop them from happening again. You can reduce the risk of having another stroke or TIA if you make some changes to your lifestyle and take the medicines that your doctor prescribes.

“You can reduce your risk of having another stroke or TIA if you make some changes to your lifestyle and take the medicines that your doctor prescribes.”

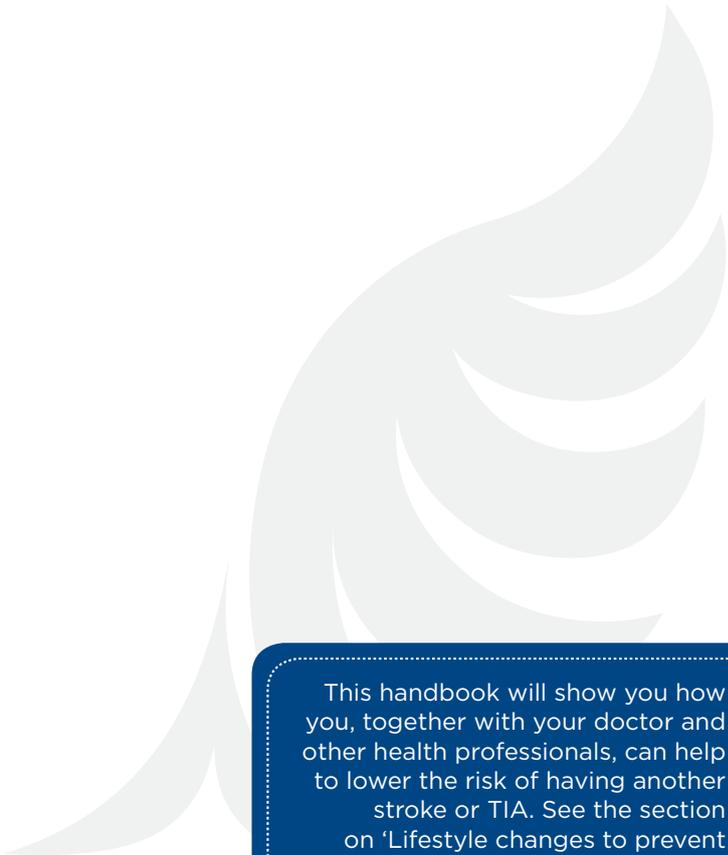
To reduce your chances of having another stroke or TIA, your doctor may recommend:

- Aspirin or other **blood-thinning tablets**
- **Anticoagulation tablets**, if you have an irregular heart beat (atrial fibrillation)
- **High blood pressure medication**, if your blood pressure is high
- Medication to **lower your cholesterol levels**

NB: See 'My Medicines' section for more information. p143

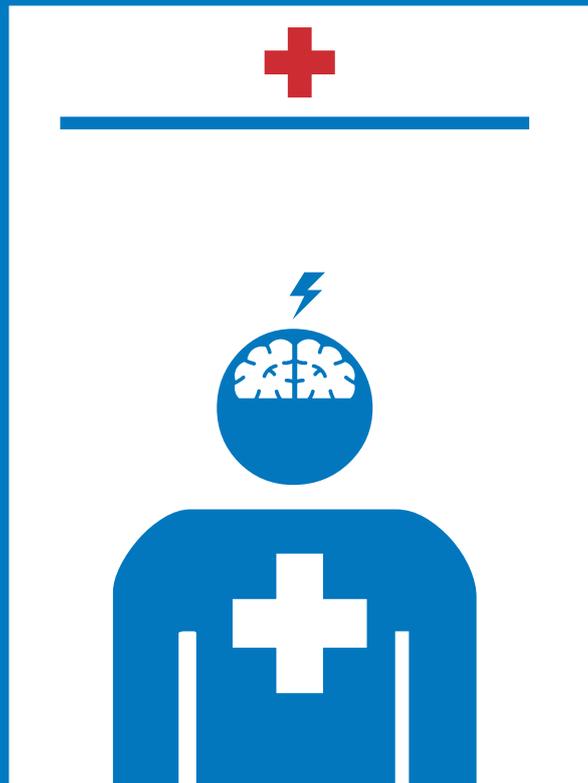
Some changes that you can make for yourself:

- **Take all of the medication** that your doctor recommends, as prescribed
- **Stop smoking** – this can make a big difference, whatever your age or however long you have smoked
- **Lose weight, eat healthily, get more exercise and learn to relax.** If you do drink alcohol, then do so in moderation. These actions can help to lower your blood pressure and cholesterol levels.



This handbook will show you how you, together with your doctor and other health professionals, can help to lower the risk of having another stroke or TIA. See the section on 'Lifestyle changes to prevent another stroke' for more information (page 91).

Stroke TREATMENT IN THE HOSPITAL



This section will help you and your family know what tests you may have to undergo and what type of treatment you should expect while you are in hospital.

Most common tests for stroke or TIA

These tests will help doctors identify what type of stroke you are having and the location of the stroke in your brain. It will also help doctors determine what risk factors you have for stroke (e.g. a heart condition or high blood pressure).

During the initial investigations, your doctor will:

- Ask about the warnings signs of stroke that you had, and your past medical history
- Take your temperature, pulse and blood pressure
- Use a stethoscope to listen to your heart sounds and also to the sound your blood makes when it flows through your carotid artery (the big artery at the side of your neck). Your doctor may be able to detect a problem with the blood flow through the carotid artery by listening for an unusual sound called a 'bruit'
- Do a physical examination to test your speech, facial movement, eye movements, muscle strength, reflexes and other body functions



Blood tests

Blood tests help doctors to understand why you may have had a stroke. They may include a cholesterol test, a blood sugar test (to check for diabetes) and a blood count test (to check if you are anaemic or if your blood is too thick).

Sometimes, other tests will be done. If you don't know what your blood is being checked for, ask your doctor. It is your right to know.

ECG

An ECG is important for spotting any irregular heartbeats and checking that your heart is not beating too fast. The nurse or technician will put sticky patches (electrodes) on your arms and chest, so that a heart tracing (ECG) can be made on paper to show your heart rhythm. It is a quick and painless test.

Brain imaging tests

The aim of brain imaging tests is to produce pictures of the brain, and this includes CT scans and MRI scans. Ideally, every stroke patient should have a CT scan after a stroke or TIA, but this is not always possible in South Africa. Carotid doppler tests are an ultrasound scan to show the blood flow to, or in, the brain.

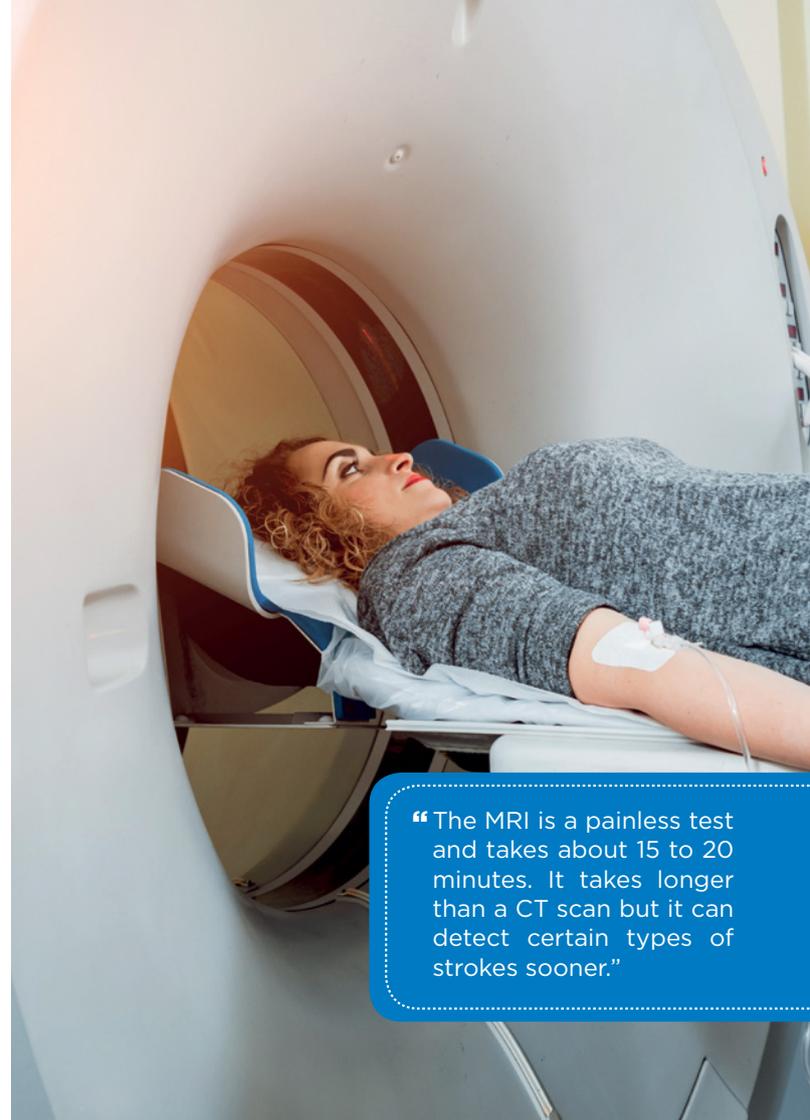
CT scan

A CT or CAT scan is a special type of X-ray of the brain that shows if there is any bleeding into the brain or any damage to the brain, caused by blocked blood vessels. It is a painless test and can be done while you lie on a bed. The bed moves through a machine shaped like a doughnut. The test can take anything from five to 20 minutes.

MRI scan

Your doctors may choose to order an MRI or Magnetic Resonance Imaging scan, which is used to make very detailed three-dimensional pictures of the brain. As its name suggests, powerful magnets are used, which means that people with pacemakers or some types of metallic implants cannot have the test (e.g. cochlear implants, metal coils in the brain, some artificial heart valves or metal splinters ('flashes') in your eyes). Major implants, such as a hip replacement, would not usually stop you having the test but you must tell the person doing the test if you have had one.

For this scan, you lie on a bed that moves slowly through a tunnel. Some people feel a bit claustrophobic, but to help to distract you, you are offered earphones and some music to make the experience more pleasant. This blocks out any machine noises too! There is a panic button if you really feel that you need to get out.



“The MRI is a painless test and takes about 15 to 20 minutes. It takes longer than a CT scan but it can detect certain types of strokes sooner.”

Carotid doppler

Carotid doppler tests are often done after TIA or mini-strokes. This is an ultrasound scan that looks at the blood flowing in the carotid arteries (the main arteries in your neck). The flat end of a plastic, sausage-shaped 'probe' scans your neck and it shows a moving picture of the blood flowing in your neck, on a screen. The test is painless and takes about 10 – 30 minutes.

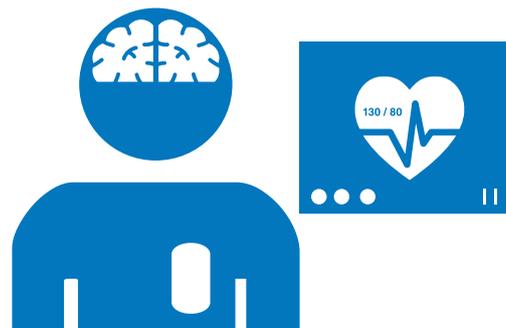
The test can help the doctor see if the blood vessels in your neck are narrowing. These blood vessels are important, because they feed blood to the brain. It can also help the doctor decide if you require any surgical treatments. If there is a serious narrowing, your doctor may refer you to a surgeon who will consider whether you require an operation to try to reduce the risk of further strokes.

Other diagnostic tests

Depending on your age, your health and the type of stroke you have had, your doctor may order other diagnostic tests as well. These include:

Echocardiogram

This test is usually requested if the doctor suspects that your stroke or TIA may have been caused by clots that have come from the heart. This is an ultrasound scan of the heart, and looks at how well the heart is pumping. The flat end of a plastic, sausage-shaped 'probe' is rubbed over your chest and it shows a moving picture of your heart beating, on a screen. The test is painless and takes about 10 – 20 minutes.



This test indicates to your doctor whether there are any clots in your heart, as the scan can detect these clots, or the source of the clots in your heart. If such clots are detected, your doctor can give you treatment to lower the chance of the clots being pumped out into your blood stream.

MRA (Magnetic Resonance Angiography)

This test is done in the same way as an MRI, but sometimes dye may be injected into your vein. This test gives a clear picture of the larger blood vessels in the brain.

CT angiogram

This is similar to a CT scan. Dye is injected into a vein to create pictures of the blood vessels in the brain, so that the size and location of any blockages can be detected.

Treatments for stroke or TIA

Because stroke is usually not painful, patients with symptoms might ignore the signs and not seek medical attention, in the hope that they will disappear.

“Acute stroke or TIA should be treated as a medical emergency and should be evaluated with minimal delay.”

The initial evaluation of a suspected stroke involves checking vital signs, such as blood pressure, heart rate and respiration. Equally important is the stabilisation of the patient. This is followed by examinations to determine if the patient has had a stroke and to identify other medical conditions that require immediate treatment, such as low blood sugar or other conditions that can imitate stroke.

General treatment

All patients with stroke need to be stabilised as soon as possible in order to control any problems that may impair recovery. This includes careful management of hydration, nutrition and swallowing problems, as well as measures to prevent pneumonia and blood clots forming in the veins of the legs. High blood pressure and blood sugar levels may require treatment. A stroke patient may require oxygen for breathing problems. After the acute phase of stroke treatment, the focus of management shifts to rehabilitation and preventing another stroke from occurring.

Operation for TIA or stroke (if required)

An operation, called a ‘carotid endarterectomy’, may be carried out by specialist doctors on narrowed blood vessels in the neck. Should you need an operation, you will be seen by a specialist, who will explain what it involves.

However, most people are given tablets and asked to change their lifestyle in order to help prevent further strokes (e.g. stopping smoking).

Emergency treatment - TPA

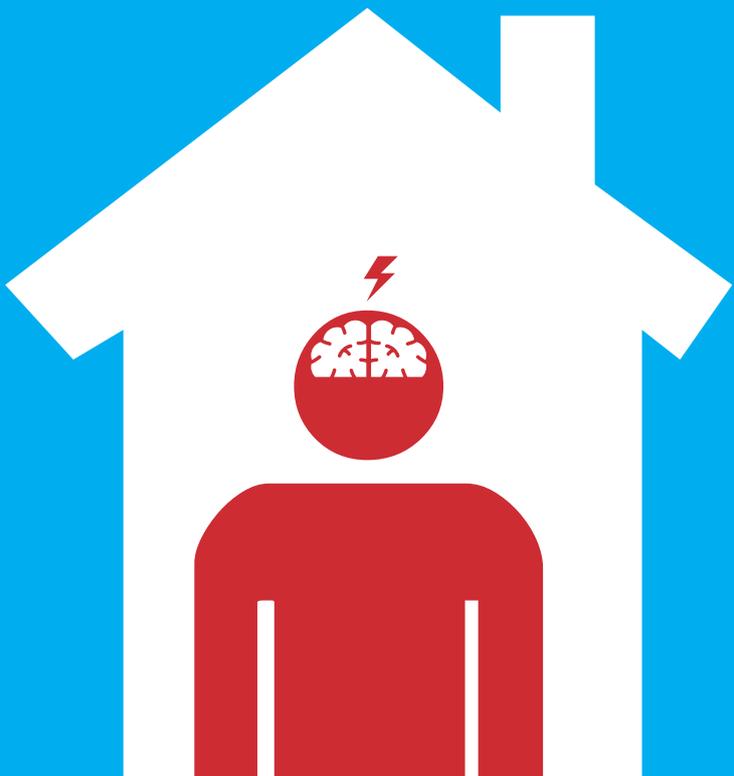
Some patients may be eligible to receive TPA treatment. TPA is a drug that can break up blood clots and is commonly known as 'clot-buster' treatment. TPA should be given at hospitals with stroke units that have scanning facilities. TPA can only be given to patients who are having a stroke caused by a blood clot, and it must be given within four-and-a-half hours of the start of stroke symptoms. In some cases, TPA cannot be used.

Emergency treatment - surgery

In some cases, such as haemorrhagic stroke, surgery may be needed to remove blood that has pooled in the brain. Certain patients with TIA or stroke may require an operation to remove plaque from inside the carotid artery.



COMING HOME FROM *Hospital*



For some stroke survivors, returning home after being in hospital or at a rehabilitation facility may seem daunting. Here are some tips to help make the move easier:

Work closely with your rehabilitation team.

They will work with you, your caregiver and your family to help ensure that your return home is a success.

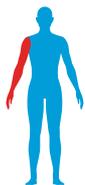
If there are complications, know what warning signs to watch out for.

Most stroke survivors go home without any problems. However, some people may experience medical complications, so it's best to be prepared. You, your caregiver and your family must be told what warning signs of a possible stroke recurrence to look out for and what to do if they should occur.

CONDITIONS TO WATCH OUT FOR:

Am I having another stroke?

What are the symptoms?



- **Sudden weakness, numbness or tingling** on one or both sides of the body

- **Sudden loss of speech**, trouble speaking or understanding speech



- **Sudden loss of vision** in one or both eyes or double vision

- **Sudden** severe and unusual **headache**



- **Sudden unexplained dizziness**, loss of balance, trouble with walking or unexplained falls

Am I having a heart attack?

What are the symptoms?

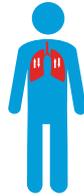
Symptoms vary from person to person, but watch out for:

- Heavy pressure, tightness, crushing pain or unusual **discomfort in the centre of the chest**



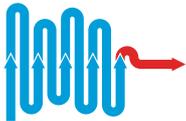
- It may feel like indigestion, and then **spread to the neck, jaw, shoulders, arms or back**. In women, the pain may be more vague

- **Shortness** of breath



- **Nausea**, vomiting

- Sweating



- Signs may be mild or severe and **may come and go**

Is my heart failing?

What are the symptoms?

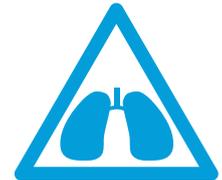
- Breathlessness when you are active or while lying down
- Swollen ankles and feet
- Severe tiredness and loss of energy
- Loss of appetite



Am I having a heart attack?

What are the symptoms?

- Cough, fever and shaking chills
- Shortness of breath (with very fast or shallow breathing)
- Sharp chest pains that get worse when you breathe deeply or cough
- Confusion or behaviour changes (especially in older people)



What should I do?



In all of the above instances, you should: call your doctor, or call your local emergency service. Have these telephone numbers handy.

RECOVERING FROM *Stroke* AND REHABILITATION



Recovery from stroke is a gradual process. Rehabilitation may be an important part of your recovery, as it can help you to adapt to any physical problems that you may have developed as a result of the stroke. The purpose of rehabilitation is to regain as much independence and confidence as possible. You might not be able to do exactly what you did before the stroke, as rehabilitation cannot cure damage to the brain, but it can help you to relearn how to make the best possible use of your body.

Many people with stroke may make a full recovery, but others can be left with permanent disabilities, so it is important to set a few realistic goals. You may need to learn new ways of doing everyday activities to help you overcome any of the changes that have happened to your body after the stroke.

How long will rehabilitation last?

No one can say exactly how long rehabilitation will take. Your rehabilitation programme will be tailored according to your individual needs and it should change as your condition improves.

“Learn new ways of doing everyday activities”



Where will you go for rehabilitation?

You may receive rehabilitation:

- In the same hospital where you were initially treated for your stroke
- In a special rehabilitation hospital or facility
- At a rehabilitation clinic as an out-patient
- From a rehabilitation specialist who makes home visits

“No one can say exactly how long rehabilitation will take”

The rehabilitation team

The number of services you will need depends on the effects of your stroke. You may need the services of some of the following healthcare professionals:

- **Doctor:** who may be a specialist or a general practitioner (GP) is responsible for providing supervision and attending to any medical problems relating to your stroke
- **Psychologist:** can help you with emotional problems, or with thinking or memory skills

- **Nurse:** will help you with daily care, such as taking medications, bathing, dressing and toileting, until you can manage on your own. They can also help with discharge planning and organise community services that you may need after you go home
- **Physiotherapist:** will teach you special exercises and techniques to improve your muscle control, balance, mobility and walking, if you are having difficulty using your limbs, getting your balance or co-ordinating your movements
- **Occupational Therapist:** can help you improve and make the best use of your physical and mental abilities in everyday life, so that you can achieve your personal goals. He or she will help you relearn daily tasks, such as dressing and cooking; and may give you special equipment, such as hand-rails on the stairs or in the bath, to help you. If you think you could do with some help with equipment, then ask your occupational therapist for advice
- **Dietitian:** will help with the choice of foods for swallowing problems (e.g. he/she may order meals that are soft and easy for you to swallow). They can also help you to plan healthy meals, if you need to control your weight, cholesterol levels or any dietary problems that you might have
- **Speech Therapist:** will treat swallowing problems, difficulty in speaking, understanding speech, reading or writing, and help you to improve your speech or teach you other ways to communicate
- **Social Worker:** can help you and your family deal with the feelings of anger, sadness, depression, confusion and anxiety that are common after a stroke. Social workers also help with arrangements for community services, financial support, work and discharge plans

“Relearn daily tasks.”

Your family

Your family has an important role to play in actively participating in your rehabilitation. However, stroke can be a challenge for the whole family. If you have lost your independence, it could mean that your family will have to cope with some changes in their lives. Sometimes this can upset family life.



Everyone will need to take time to adjust to this new way of life. Your family will have to cope with any problems you may have and how you feel, just as much as you do. So talk, do not bottle things up. In that way, both you and your family will be able to agree on how to get on with the rest of your lives together.

You, the stroke survivor

It can be tough trying to understand why you have had a stroke and you may feel depressed about the changes in your body. You may even feel afraid to try something new. Remember to ask your rehabilitation team and family for advice on how to make your life easier.

It is important that you do as much for yourself as possible and, with time, you will become more independent. Some people may not be able to do everything they could do before the stroke. Don't let family members and carers assist too much. They should help only when necessary, so that you can be as independent as possible. It is also important not to overdo things. Carry out tasks at your own speed, no matter how slow. A regular routine helps too. After a stroke, you can tire more quickly, and getting enough rest is important.

Stroke in younger adults

Stroke can occur at any age, but younger people who have stroke may be confronted with specific concerns, such as returning to work, sexual relations and the ability to function as a 'normal' parent or spouse. All of these issues should be discussed with the stroke rehabilitation team.

THE PHYSICAL EFFECTS OF Stroke?



The brain controls many functions that we take for granted. Damage to the brain can affect the way a person moves, feels, sees, behaves, talks, thinks and understands. You may notice these effects at the time of having the stroke or TIA. The effects are not always long-lasting, but are sometimes permanent.

The effects of your stroke will depend on:

- Which part of the brain has been damaged
- The extent and seriousness of the damage to your brain
- Your health, age and personality before you had the stroke

Each person has different experiences when he or she has a stroke. No two people are the same. Sometimes, people can recover completely from a stroke. Other people experience more serious problems after a stroke. This can be due to the size of the part of the brain that is injured. The bigger the clot or bleed, the more severe the damage.

Every stroke is different and it can change your life. Just make sure that you concentrate on what you can do and not on what you can't do anymore. Enjoy your life as much as possible. Family and friends will also give valuable support and encouragement.

If you feel unsure about going out and enjoying yourself the way you did before your stroke, there may be a local stroke club or support group near you that offers mutual support, fun and social activities.

You can ask your rehabilitation team or contact the Heart and Stroke Foundation South Africa on their Health Line at **0860 1 HEART (0860 1 43278)**, or visit their website at **www.heartfoundation.co.za** for a list of organisations.

“Family and friends will also give valuable support and encouragement.”

You may think that all of the problems you face after a stroke are very depressing. However, remember that many of your problems will resolve with time and rehabilitation. If you don't have any after-effects of stroke, or very few, it is still important

That you do everything that you can to reduce your chances of having another stroke or TIA (see page 91 on 'Lifestyle changes to prevent another stroke').

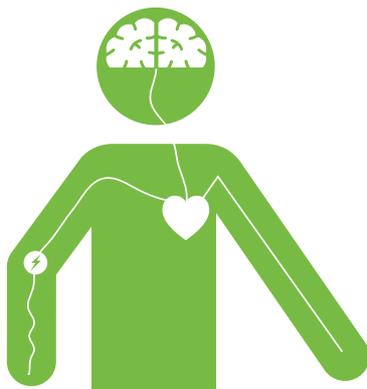


Paralysis or weakness

Paralysis or weakness of one side of the body is one of the most common things that can happen after having a stroke, as the brain is responsible for how we feel things, and how we move. The weakness of one side of the body usually occurs on the opposite side where there was brain damage. So when a stroke occurs on the left side of the brain, it is the right side of the body that is likely to be affected. However, sometimes people may notice symptoms on both sides.

Muscle tone

The weakness is usually accompanied by a change in the ‘tone’ of the muscles. Tone describes how tight your muscles are. We need enough tone to allow us to do all the activities we want to. The tone should be balanced: it should not be too little, so that the muscles are too floppy, and not too high, as it could make the muscles feel too stiff or even painful. This stiffness is called ‘spasticity’.



Too little muscle tone (floppy muscles)

Can make it difficult for you to balance, sit up on your own, walk or use your arms.

Too much muscle tone

Can cause a tight fist, a bent elbow, an arm pressed against the chest, a ‘frozen’ shoulder, a stiff knee and/or a pointed foot that can interfere with walking. Spasticity in major muscle groups can cause painful muscle spasms. Too much tone can lead to permanent changes in the muscles, which stops the joints working properly. We call these changes ‘contractures’.

What you can do to manage paralysis or weakness

Your physiotherapist will see you very soon after your stroke. He/she will assess your muscle tone, how well you use your limbs, how well you can balance, how well you can feel things (you might get a numb feeling or ‘pins and needles’) and how well you are able to change positions or move around.

“Doing your exercises on a daily basis will help to prevent complications such as a frozen shoulder.”



While you are in hospital, you will get treatment from your physiotherapist and/or occupational therapist. You may receive your treatment in the ward or in a treatment area, and the length of the session will vary, depending on your resources and how much you can manage. It is important to work with your physiotherapist from day one. Doing your exercises on a daily basis will help to prevent complications such as a frozen shoulder.

Your therapist will work with you and your relative/carer to set realistic goals. These goals can be altered, as your condition changes. It is no use aiming for

something you are not likely to manage, as in the end you may not practice the activities or movements your physiotherapist or occupational therapist has recommended. Being realistic is important.

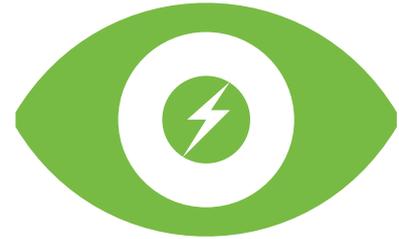
There are no 'set exercises' for stroke. Each person's symptoms and recovery can be so different. Your therapist will aim to achieve the best possible outcome, given your condition, so that you can manage all that is possible for you to do.

You might need to have therapy treatments after you leave hospital. They are available in the hospital physiotherapy or occupational therapy department, in a day hospital, or even in your home. It just depends on what is best for you.



Some people need additional treatments after six months, a year, or even longer.

Sometimes people do have ongoing improvements, but sometimes they do not. Your stroke nurse or doctor can speak to your physiotherapist or occupational therapist if you feel that you are not improving. A review appointment may then be arranged and, if needed, ongoing therapy can be arranged if new goals are identified. It is important to continue to follow your therapist's advice, even when you are no longer having treatment.



Eyesight problems

Eyesight problems are fairly common after a stroke. Some people lose part of their eyesight in one or both eyes. They may only see one part of the plate when eating, or they may only be able to read one side of a written page. Some people ignore all objects or people in one half of their vision. Some people see double.

Eyesight problems can sometimes improve in the few weeks after stroke. Even if your problem doesn't go away, there are ways to help you cope with losing some of your sight.

For example, at mealtimes you can place the plate where it can be seen better. Ask people to come towards you and to stand on your good side. Your caregiver or family can also help by putting objects on your good side, so that it is easier for you to see them. Most people with strokes learn to turn their heads more to make up for eyesight problems. It may sound simple, but it makes a difference. Some people need to see an eye specialist for tests to see if special glasses can help, particularly if you are seeing double. Ask your doctor or occupational therapist for help if you need it.

Swallowing difficulty (dysphagia)

Swallowing difficulties are very common after a stroke. Problems can be mild or more severe, and last a short time or persist over a longer period. They happen because the nerves and muscles that control swallowing are no longer working as well as they used to. If you are having swallowing difficulties, you will be assessed by a speech therapist and a dietitian to see if your nutritional intake is adequate. The speech therapist will give you specific advice on how to manage your swallowing.



If not treated properly, swallowing problems could result in choking or inhaling food (aspiration) and could lead to pneumonia, malnutrition or dehydration.

During the early stages of recovery, the speech therapist and/ or dietitian may order meals that are easier for you to eat. You may find that soft, moist foods are easier to swallow than thin liquids such as water or juice, so you may be given:

- Drinks that are thickened to the consistency of pudding
- Very soft foods (such as porridge or mashed potatoes with gravy)
- Foods that have been chopped, minced or puréed



As swallowing improves, most stroke patients will be able to go back to eating normal food. If you feel you need help and advice regarding your swallowing, please ask your doctor or nurse to refer you to a speech therapist and/or a dietitian. In exceptional cases, if swallowing is really difficult, you may need to get your food and drink in another way (e.g. through a tube into your stomach). While you are in hospital, your swallowing will be monitored for any changes.

What you can do to manage swallowing difficulties:

Food or liquid coming out of the nose

Immediate assessment by a speech therapist is needed, as special tube feeding may be necessary.

Coughing or choking when eating or drinking

Immediate assessment by a speech therapist is needed, as tube feeding may be necessary. If oral feeding is allowed, follow advice from the speech therapist and/or dietitian. When eating, sit up straight in your bed or chair. Don't talk while chewing.

Food sticking in the throat

Chew each mouthful thoroughly before swallowing. Clear your throat and mouth of food after each bite. When ready to swallow, use the 'chin tuck' technique: place your chin on your chest while swallowing.

Food collecting in your mouth (especially in the side of the cheek)

Remove food trapped in your cheek with your finger. If necessary, use a small mirror to see where food is trapped. Rinse your mouth after you have finished eating.

Dribbling or drooling

Wipe your face frequently with a cloth or serviette. Make a conscious effort to try and swallow your saliva at regular intervals.

Food falling from your mouth

Take small bites and use a teaspoon instead of a tablespoon.

Taking a long time to eat and drink

Avoid distractions while eating (e.g. switch off the TV or radio). It is acceptable to take a long time to eat, so try not to rush mealtimes. It may be easier to have smaller, more frequent meals.

Heartburn or acid reflux

When eating, sit up straight in your bed or chair. Don't wear tight clothes around your stomach area. Avoid large meals; rather have smaller, more frequent meals. Have liquids between meals and not with meals.



Avoid some foods which are known irritants such as:

- Spicy foods
- Fatty meals or fried foods
- Acidic foods (citrus fruit/juices, tomatoes or tomato juice)
- Drinks with caffeine (coffee, tea, chocolate and cola)
- Peppermint or spearmint
- Gas-forming foods (e.g. gassy cooldrinks, cauliflower, broccoli, onions, cabbage or beans)



Dehydration - signs to watch out for:

- Little urine output
- Dark, concentrated and/or strong-smelling urine
- Thick, stringy saliva
- Constipation
- Dizziness when sitting up or standing
- Confusion
- Fever

- Decreased skin elasticity (e.g. if you pinch the skin on the back of your hand and it doesn't spring back, but remains 'pinched up')

Fluid requirements vary among individuals, but most people need at least eight cups of non-caffeinated drinks per day (e.g. water, fruit juice, milk, rooibos or herbal tea). If thin fluids are not tolerated, the dietitian or speech therapist will advise on how drinks can be thickened and if tube-feeding is necessary.

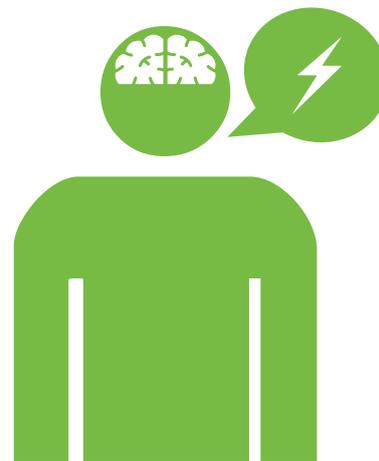
Should these tips not work for you,

Please see a speech therapist, as problems such as persistent coughing or choking can be life-threatening if not treated!

Special devices

There are some special devices available that make eating easier, especially if you are eating with only one hand. Speak to your occupational therapist about what types of devices there are and where you can get them. Some examples include:

- Modified utensils with adapted handles
- Cutting utensils made for one-handed use
- Modified cups with partial lids
- Dishes with non-slip pads at the bottom to keep them from slipping



Communication problems

Aphasia

Aphasia is a communication problem where your ability to use and understand language is affected. It results from damage to the language areas in your brain. If you have aphasia you may have problems with:

- Understanding others when they talk
- Talking – you know what you want to say but you struggle to find the right word
- Reading
- Writing

Aphasia is a complex condition. It affects each person differently. For some people, it is hardly noticeable, whereas for others it can be a severe problem and can make you feel very frustrated. Aphasia does not usually affect intelligence.

What you can do to manage aphasia

If you have aphasia, it is important that you are assessed by a speech therapist. He/she will provide you and your family with information and advice on how to help your communication skills. The therapist will find out how the aphasia is affecting you and work with you to decide on the best type of therapy.

“Keep it simple – keep conversations clear and direct.”

Recovering from aphasia takes time. For some people, it may be temporary and improve quickly after the stroke. Others may be left with permanent communication problems. There is no quick solution. It is impossible to tell how quickly someone will recover in the early stages of stroke, or to what extent. Although speech therapy can't cure your aphasia, it can help you to communicate more easily and effectively. It will help you to recover your use of language, improve your ability to speak and teach you new ways of communicating.

Practical tips on how to communicate with someone who has aphasia

- Wait! Don't rush the person, be patient and give him/her time to speak. Don't finish his/her sentences
- Turn off all distractions, such as the TV or radio, and avoid background noise
- Speak in your usual way. It is not necessary to shout! (He/she can still hear you, but just can't understand well)
- Keep it simple – keep conversations clear and direct by using easy words and sentences. Ask 'yes' or 'no' questions. If he/she gets confused with responses, write 'yes', 'no' and 'I don't know' on paper, and ask him/her to point to the correct response. Confirm that he/she understands you, and that you understand him/ her. Check with yes/no questions

Use multiple methods or special devices for communicating, such as:

- Gestures
- Facial expressions
- Drawings, objects, pictures or picture cards so you can point to what he/she wants
- Scrabble® tiles so that you can spell out words

- Remember to include the stroke survivor in social gatherings or conversations so that he/she does not begin to feel lonely or cut off from people
- Respect the stroke survivor! The most important thing you can do is to remember that aphasia means having difficulty with language and is not related to intelligence. Remember, he/she is still intelligent! Do not treat the survivor like a child. Include him/her in conversation, even if he/she can't participate

If you feel you need help and advice regarding your communication, ask your doctor or nurse to refer you to a speech therapist.

Dysarthria

Dysarthria is the medical name for a speech problem where the muscles used for speaking become weak, stiff or uncoordinated, and pronunciation is impaired. You may find that your speech is slurred, making it difficult for other people to understand you. Remember: your speech may not always be fully intelligible, but your language abilities are not impaired.

“Watch the person's face and lips as he or she speaks.”

Dysarthria is very common after a stroke, and can vary from person to person. Some people feel embarrassed and frustrated by their dysarthria. If you have dysarthria, it is important that you are assessed by a speech therapist. He/she will provide you and your family with information and advice on how to improve your speech, how dysarthria is affecting you, and will work with you to plan therapy, if required.

Practical tips on how to communicate with someone with dysarthria:

- Reduce distractions and background noise
- Pay attention to the speaker
- Watch the person's face and lips as he or she speaks
- Let the speaker know when you have difficulty understanding him or her
- Repeat only the part of the sentence that you understood, so that the speaker does not have to repeat the entire message
- If you still don't understand the message, ask yes/no questions or have the speaker write his or her message to you. If the person cannot read or write, a picture pointing system can be implemented



A person who has a stroke may have both a speech and a language problem:

- This means that he or she may slur their speech (dysarthria) and also struggle to understand content or form sentences (aphasia)
- This is something you need to bear in mind when communicating with such a person

If you feel the need for help and advice regarding communication skills, please ask your doctor or nurse to refer you to a speech therapist.

Feeling tired

After a stroke, tiredness is a common symptom. It often takes more energy to do things. Lack of exercise, eating poorly due to a swallowing problem, poor sleep or depression can also make you feel tired. You should feel less tired as time goes on and generally feel better. If you have problems sleeping, ask your nurse or doctor for help. Remember, they can't help if they are unaware of your problem.

Your occupational therapist can show you ways of doing everyday activities that don't use so much energy. Remember to pace yourself and don't try to do too much at once. Limit your chores and tackle them one at a time. Ask your occupational therapist for advice.

Incontinence

Incontinence is the loss of control of the bladder or bowel and is extremely common after stroke. There are several different reasons why this occurs. The stroke may have damaged the part of the brain that controls the bladder and/or the bowel.

Other problems can also cause incontinence. For example, if you have difficulty walking or moving around, or you need help getting to the toilet, you may not be able to get there in time.

The same applies to communication problems. If your stroke has left you with speech problems, you may not be able to tell anyone when you need the toilet.

Some of the medication that your doctor prescribes to control your blood pressure can aggravate incontinence. If this is the case, these medications can be reviewed. There are many ways to improve bowel and bladder control, so don't suffer in silence.

“There are many ways to improve bladder control.”

Urinary incontinence can be occasional or continuous. For many people, the problem improves by itself. If you continue to suffer from incontinence problems you can get some extra help, which may stop the incontinence problem completely, or improve it, making it easier for you to manage and socialise without fear of embarrassment.

You can get help and advice from your nurse, hospital doctor or GP. There are several straightforward ways of helping. For urinary incontinence, these include retraining your bladder through exercises, medication or equipment, making it easier to go to the toilet. Also, many pharmacists keep pads and underpants for incontinence sufferers of both sexes.

Special devices

Some adaptive devices that can make toileting easier include:

- Raised toilet seat
- Grab rails on the wall next to the toilet
- Portable urinals
- Commode chairs



“Keep a commode or portable urinal next to your bed at night.”

Some tips to help you cope with incontinence

If you're having trouble controlling your bladder:

- Try going to the toilet at regular intervals (e.g. every two hours)
- Limit fluids before going to bed
- Keep a commode or portable urinal next to your bed at night
- Have a night light in your bedroom
- Have disposable bed pads or linen savers and a clean change of linen readily available

If you're having difficulty passing urine (urinary retention):

It is often managed, at first, by passing a catheter (thin plastic tube) into the bladder, to allow it to drain continuously. Some people will need a catheter on a long term basis. It may allow you to have greater freedom than being incontinent, which is difficult to control. Most people will not become incontinent.

If you are having bowel problems:

Note the frequency of your bowel movements, so that you can restore a predictable bowel habit as soon as possible. If you can predict when your bowels

will move, it will allow you to get to the toilet in time. Having easy access to a commode also helps.

If you're constipated:

Constipation affects many people, not just those who have had a stroke.

Causes:

- Less mobility
- Eating food with too little fibre
- Difficulty swallowing
- Limited fluid intake
- Difficulty in asking for fluids
- Difficulty in getting the cup to your mouth

Speak to the dietitian to find out if you need more fibre in your diet and whether your fluid intake is adequate. Ask your doctor or pharmacist if any of your medications are affecting your bowel habits and find out if treatment is necessary to improve this situation.

Seizures

About five people in every 100 have at least one seizure after a stroke or TIA. Many people think the seizure means that they are having another stroke. Seizures can be very frightening when you don't know what is happening to you. It is important that you tell your doctor or nurse about what happened, and if a family member saw what happened, they can describe it for you. You may require treatment and medication for this problem.



HOW CAN *Stroke* AFFECT MY FEELINGS?



You may experience a range of thoughts, feelings and emotions, such as sadness, frustration and anger, after having had a stroke. These are all normal, natural and part of the adjustment process.

Tearfulness

You may feel that you have lost control of your emotions after your stroke. This is common, and you may experience periods of tearfulness that happen unexpectedly and can be embarrassing. This often improves with time, and talking to your family or friends can be useful. If you find that it is causing you significant distress, your doctor or nurse will be able to provide further advice.

Mood difficulties

Feeling frustrated, grumpy or low in mood is a normal reaction and very common after a stroke. Stroke can represent a loss for people in a number of ways. Life may have changed and adjusting to these changes can be very difficult. Talking about your feelings with family and friends can help. Meeting others who have been through a similar experience can also be helpful. If there is a local stroke support group in your area, it would be in your interest to join.

Depression

Up to half of all stroke survivors will experience depression at some stage. Caregivers are also at risk of becoming depressed, especially if they are struggling to take on numerous new responsibilities and roles. Remember that depression is not a sign of weakness. It is a normal reaction to a major change in your life. Depression varies from person to person, but there are some common signs and symptoms.

Warning signs of depression include:

- Feelings of helplessness and hopelessness
- Loss of interest in activities you used to enjoy (hobbies, social activities, sex)
- Changes in appetite or weight (gaining or losing weight without trying)
- Irritability or restlessness (feeling agitated, restless or on edge)
- Changes in sleeping patterns (insomnia, or waking in the early hours of the morning, or sleeping more than normal)
- Loss of energy (feeling fatigued, sluggish and physically drained)
- Self-loathing (strong feelings of worthlessness or guilt)

- Concentration problems (trouble focusing, making decisions or remembering things)
- Unexplained aches and pains (persistent or recurring headaches, back pain, aching muscles or stomach pain)
- **Thoughts of suicide or death — if this occurs, you need to get professional help immediately!**



It is important to remember that many of these symptoms can be part of life's normal lows. However, the more symptoms you have, the stronger they are, and the longer they last, the more likely it is that you have depression. When symptoms become overwhelming and start to seriously interfere with your life, then it is time to seek help. If you think you have depression, contact your doctor, as it can be successfully treated in a number of ways, including: medication, speaking to a social worker or being referred to a psychologist for therapy. The faster you are treated, the better the outcome.

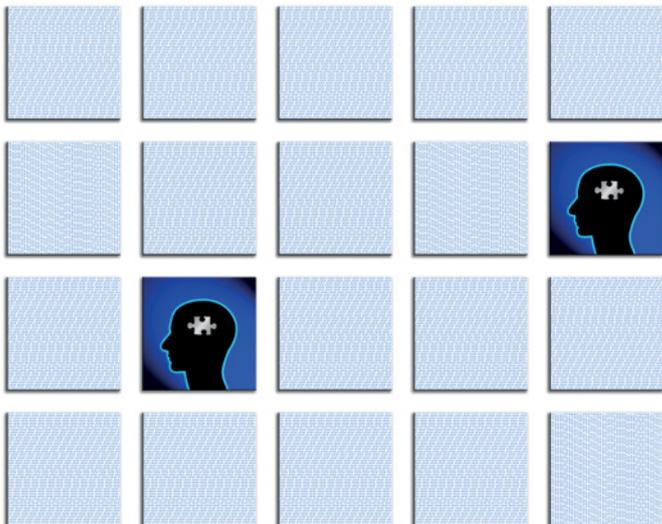
Some tips to help you cope with emotional issues

- Talk about your feelings with family, friends and your caregiver. Bottling up your feelings will only make things worse. If you suspect you are becoming depressed, ask your doctor, social worker or psychologist for help
- Join a local stroke support group, if there is one in your area. Talking about your experiences and challenges with other stroke survivors can be helpful, as it gives you the opportunity to share stories, exchange practical tips and receive emotional support
- Keep up social contacts with friends and family, as they can help create a positive, supportive environment



Memory and Cognition

Some people may experience changes in their concentration, memory or problem-solving skills. Sometimes these changes can affect your ability to do everyday tasks and may become more noticeable once you are discharged from hospital. Your occupational therapist will be able to provide assessment, advice and support to help you cope with any problems. Sometimes, a more detailed assessment



and a referral to a psychologist will be required, especially if you have a memory problem that can be treated medically

You may have trouble with:

- Learning and remembering new information, e.g. learning new names or solving problems



- Keeping track of the day, date or time
- Remembering appointments and social engagements
- Judging your own behaviour, so that you do not say or do inappropriate things
- Remembering to do daily activities such as:
 - Brushing hair or teeth
 - Taking medication
 - Chewing food properly
 - Switching off appliances

Here are a few tips to help you improve concentration, memory or problem-solving skills

- Improve your physical condition by keeping physically active, eating a healthy diet, getting enough rest and avoiding too much alcohol. This will help your brain to work better
- Get organised by having a place for things that are easily misplaced (e.g. have a key rack near the door)
- Use a calendar or day planner to make notes of things you need to remember
- Write down shopping lists and make a 'to do list' of tasks or errands that need to be done. Once done, cross it off your list
- Use an alarm clock, a watch or a stove timer to help you remember to take your medications or to switch off appliances
- Find triggers that jog your memory, e.g. have a picture of a toothbrush in the bathroom to remind you to brush your teeth, or display your toothbrush in an obvious place
- When learning something new, go to a quiet place where you won't be distracted, and turn off the television or radio
- Try to do mental exercises on a daily basis to improve your memory, e.g. try to memorise the phone numbers and names of the people who have contacted you during the day



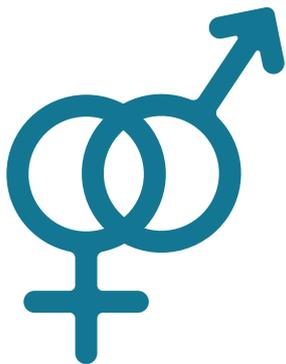
- Read the newspaper to keep updated with what is happening, which will help you to improve your attention skills
- Do simple crossword puzzles. It is important to maintain mental fitness

Changes in personality

You may not feel like the same person after your stroke. Some people feel frustrated, easily irritated or angry. Others feel that they have lost their 'get up and go' and can't motivate themselves. It can be useful to talk to family and friends about this. They may have noticed your mood changes, too. Further advice and help is available from your doctor or stroke nurse.

Sexual relations

It is normal for anyone who has had a stroke to feel anxious about sex. Many people are afraid that having sex may lead to another stroke or to a heart attack. But the good news is that there are no medical reasons for limiting sex after a stroke. Sexual activity may raise your blood pressure slightly, but no more than walking up a short flight of stairs.



Some tablets such as tranquillisers, high blood pressure medicines and sleeping pills can reduce your sexual ability and mood for sex. It is possible to change your medicines, so that you don't get these side-effects. Ask your doctor or stroke nurse, but don't stop taking your medication without consulting your doctor first. Remember: no medical person can help you if you don't let them know that you have a problem.

The body's disabilities need not necessarily inhibit your sex life. Inability to move does not mean inability to please or experience pleasure. Companionship, intimacy and loving relationships can be maintained and enjoyed. Your partner needs this loving contact as much as you do.

You and your partner may need to adjust to some physical changes in your body. Accepting these changes may take time, effort and honest communication. Most people develop their own ways of overcoming problems, but ask your doctor for advice or to refer you to an appropriate professional. Your social worker or mental health professional may also be able to help

“Keep a commode or portable urinal next to your bed at night.”

Sometimes tiredness or anxiety makes people lose interest in sex. Again, talking about your concerns helps, and never put off asking for help, if you need it. Sex is a valuable source of enjoyment in a relationship. The effort required reduces tension and is a drug-free treatment for sleep! There's no need to rush; let events take their course. Start with a cuddle. Let feelings of being close together again help normalise a sexual relationship with your partner.

What you can do:

- Remember that 'sex' doesn't always have to include orgasm or even intercourse, but should include hugging, kissing and caressing. This physical contact shows love for your partner
- Explore different ways to show affection towards your partner and how to please one another. Let your partner know what you would like him/her to do to give you pleasure
- Start slowly, with caressing, exploring feelings and altered sensations. Guide one another and try mutual stimulation and then intercourse, if possible or desired by both of you
- Stay as attractive as you can by keeping yourself well groomed and by maintaining good personal hygiene
- Plan intimacy in advance. Choose a time when you are rested, relaxed and unhurried, and before you have meals, or any alcohol or sedatives
- Choose a place that is familiar, comfortable and private. Make sure there are no interruptions



- Set aside enough time for lovemaking, especially if arousal is difficult to achieve, at first. You could try relaxing together before you begin: have a massage, listen to music or soak in a bath, if possible
- Experiment with new ways of having sexual relations if you have paralysis or loss of sensation. Although these adjustments are not always easy, it's important to make your sexual activity as easy, pleasurable and comfortable as possible
- If needed, try using pillows to help support your affected side during lovemaking and/or if necessary have a footboard or a handle above the bed



- Use a water-soluble lubricant, if you have vaginal dryness. Don't use petroleum jelly, as it doesn't dissolve in water and can promote vaginal infection
- Try to empty your bowels and bladder before sexual activity. Limit fluids two hours before sexual activity, so that you decrease the amount of urine in the bladder
- Avoid alternative herbal remedies to try to restore your sexual function or interest in sex, as they may interact with some of the medications that you are taking
- Your doctor may prescribe medication to assist you



Lifestyle

CHANGES TO PREVENT ANOTHER STROKE



Risk factors for stroke

Certain risk factors increase your chance of having a stroke or TIA. You cannot change or control some risk factors, but most risk factors can be managed and treated.

Risk factors you cannot change

- Your age – as you get older, your chances of having a stroke increase, but it can also occur in young people, including children
- Your sex – men are more likely to have a stroke than women
- Family history of stroke – if you have a close family member who has had a stroke in the past, you have an increased chance of having a stroke
- Previous stroke or TIA

Risk factors you can do something about

- High blood pressure
- Atrial fibrillation (an irregular heart beat)
- High cholesterol
- Diabetes
- Obesity (being overweight)
- Smoking

- Unhealthy diet
- Drinking alcohol excessively
- Inactivity
- Use of illicit drugs (e.g. cocaine)

“Exercise regularly and take the medicines your doctor prescribes.”

If you stop smoking, eat sensibly, exercise regularly and take the medicines your doctor prescribes, you can lower your chances of suffering another stroke or TIA. Managing an irregular heartbeat and keeping good control of high blood pressure, high cholesterol and diabetes, should you have these conditions, also substantially lessens your risk of another stroke or TIA. In the next few pages, we will tell you more about each of these, what your doctor can offer, and what you can do to help yourself.

“Stress increases blood pressure in everyone, but only for a little while, and no damage is done.”

High blood pressure

If you have high blood pressure, it can double your risk of stroke. High blood pressure can't be felt, as there are no symptoms, so people often have high blood pressure without being aware of it. Stress does not cause high blood pressure. Stress increases blood pressure in everyone, but only for a little while, and no damage is done.

High blood pressure puts the blood vessels under a lot of strain, and this constant strain makes the blood vessels less flexible. High blood pressure can also increase the chances of blood vessels clogging up.

Blood pressure is measured by two numbers. The top number (systolic pressure) should be 130 or less, and the bottom number (diastolic pressure) should be 80 or less. If you don't know your blood pressure, ask your doctor or stroke nurse to measure it for you.

Managing high blood pressure

Get your blood pressure measured regularly and your treatment adjusted until your blood pressure is controlled (130/80 mmHg or less). After that, you should have it checked at least twice a year. You may need more than one kind of medicine, and many people need three or even more medicines to lower their blood pressure to a safer level. Be sure to take

your pills exactly as instructed by your doctor (see 'My medicines' section on page 156). You must take the pills every day and you will probably have to be on them for the rest of your life. If one kind of medicine doesn't agree with you, there are several others available. Tell your doctor or stroke nurse if you think your pills are giving you problems, so that you can see if a change would help.



Apart from taking your medicines, there are other ways to lower your blood pressure. For example: losing weight, if you are a bit too heavy, exercising often, eating a healthy diet and cutting down on salt will all help. Try not to overdo alcohol. For more information, see the 'Healthy eating', (page 114) and 'Be physically active' (page 132) sections. All of these will help to lower your blood pressure and lessen your chances of another stroke or TIA.

Atrial fibrillation (or irregular heart beat)

Some people have an irregular heartbeat. The medical term for this is 'atrial fibrillation' or AF. The irregular heartbeat means the heart doesn't pump the blood around very well. This allows time for the blood in the heart to make little clots. These clots can then be pumped out in the blood circulation and travel to places such as the brain, blocking off the blood supply to one part, and causing a stroke.



Managing atrial fibrillation

Atrial fibrillation can usually be slowed down and made more regular with tablets like beta-blockers, some calcium channel-blockers or digoxin. There are also medicines, such

as warfarin that thin the blood and help to stop clots from developing. There is more information in the 'My medicines' section on page 143. If you have atrial fibrillation, you should have a discussion with your doctor about warfarin. There are several reasons why it may not be suitable for some people, so make sure you are comfortable and understand the decisions that have been made.

“Everyone with atrial fibrillation should have an ECG.”

Everyone with atrial fibrillation should have an ECG, to make sure that the diagnosis is correct, as there are other causes of irregular heartbeat. Your doctor may order an echocardiogram (an ultrasound scan of the heart), in order to see:

- Whether there are any problems with the valves in your heart
- If the walls of your heart have become thickened
- How well your heart is pumping

All of these can help your doctor to decide which medicines you should take.

“An overactive thyroid can cause atrial fibrillation and treating the thyroid problem can make the heart beat regularly again.”

If you have atrial fibrillation, you will probably be told to have blood tests to see if your thyroid gland is working properly. An overactive thyroid can cause atrial fibrillation and treating the thyroid problem can make the heart beat regularly again.

Some people with atrial fibrillation will be offered cardioversion. This is done in hospital. You will get a short electric shock, which often 'jump starts' the heart back into a regular beating rhythm. You will be sedated for this procedure, so it is painless, and it should last about 10 minutes. Most people go home within a few hours. Even when your heart starts to beat regularly again, it is not a guarantee that it will stay that way. This treatment may not be suitable for everyone.

High cholesterol

Cholesterol is a type of fat that is needed for your body to function properly. There are different types of fats in your blood:

- HDL ('good' cholesterol) – picks up cholesterol from blood vessels and carries it to the liver to be

eliminated, protecting you from cardiovascular disease

- LDL ('bad' cholesterol) - too much of this type is harmful as it can clog up arteries and increase your risk of cardiovascular disease

It is, therefore, better to have higher levels of HDL ('good' cholesterol) and lower levels of LDL ('bad' cholesterol) in your blood. The tendency to have high cholesterol can be inherited or it can be as a result of a poor lifestyle, such as eating too many saturated (bad) fats and not exercising regularly.

Another form of bad fat in the blood is triglycerides. They may be raised due to overweight/obesity, physical inactivity, smoking, excess alcohol consumption and a diet very high in carbohydrates. High levels of triglycerides may also be found in people with heart disease and diabetes.



Managing high cholesterol

Get your cholesterol levels measured regularly, until they are under control. Talk to your doctor about your cholesterol levels and establish what range is appropriate for you. The levels in the table below can be used as a guideline:

LIPID LEVELS	MMOL/L
Total cholesterol	Less than 4.5
LDL cholesterol	Less than 2.5
HDL cholesterol (women)	More than 1.2
HDL cholesterol (men)	More than 1.0
Triglycerides	Less than 1.7

Once your cholesterol levels are at an acceptable level, you should have your lipid profile tested once every six months.

Eating a healthy, reduced fat diet and being physically active can help improve your cholesterol levels. For more information, see the 'Healthy eating' (page 115) and 'Be physically active' (page 133) sections.

After you have had a stroke or a TIA, you are likely to be on cholesterol-lowering medication called statins. Although medication can help to reduce cholesterol levels, it should not be a substitute for a good diet and physical activity. Even if you are prescribed cholesterol-lowering medication, it is still important to eat healthily and to exercise regularly.

NB! If you are not on cholesterol-lowering medication, ask your doctor or nurse about it.

Diabetes

Many people in South Africa have diabetes and that increases their chances of a stroke or TIA. You have diabetes when sugar levels in the blood are too high.

“Check both your blood pressure and your sugar levels regularly.”

Diabetes often goes together with high blood pressure, and having the two together will increase the damage caused to blood vessels, so it's even more important that you check both your blood pressure and your sugar levels regularly, to make sure they are as controlled as possible (see 'High blood pressure' on page 95).

Managing diabetes

If you have diabetes, you can help to reduce any damage to your blood vessels and lower your chance of having another stroke or TIA by:

- Eating a healthy diet (see the 'Healthy eating' section on page 115)
- Losing some weight, if you're overweight. It can help to keep your blood sugar levels down. Remember every kilogram counts
- Becoming more physically active (see the 'Be physically active' section on page 133)
- Monitoring your blood sugar level and keeping it in a healthy range of between 4 to 8mmol/l. If you don't have a blood glucose machine, ask your doctor to check it regularly
- Taking your tablets and/or injections exactly as your doctor or nurse has told you
- Having regular checks of your blood pressure and cholesterol levels. If you have high blood pressure, try hard to get it down to a safer level and make sure that your total cholesterol level is less than 4.5 mmol/l.

If you don't have diabetes, your doctor or stroke nurse should still check your blood sugar levels during check ups, to make sure that you have not developed the disease.

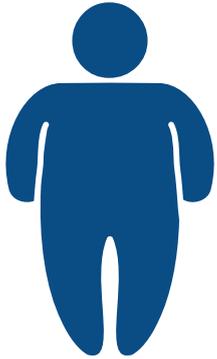
Being overweight

Being overweight increases the chances of having high blood pressure, diabetes, high cholesterol and stroke. It can also make it difficult to regain your ability to walk and move around after you have had a stroke.

“Body Mass Index (BMI) is based on your weight and your height.”

How do I know if I am overweight?

There are two main ways to check if you are at a healthy weight: by calculating your Body Mass Index (BMI), and by measuring your waist circumference. Body Mass Index is based on your weight and your height.



$$\text{BMI} = \frac{\text{weight in kg}}{(\text{height in metres})^2}$$

**For any height, there is a range of healthy weights.
A BMI of:**

- Less than 18.5 indicates you are underweight and that you may need to gain weight
- 18.5 to 24.9 means you are at a healthy weight and should aim to stay that way
- 25 to 29.9 is defined as overweight. It is a good idea to lose some weight
- 30 to 39.9 is in the obese range and means your health is 'at risk'. You need to lose weight to improve your health
- 40 and above is severely obese and your health is at serious risk. You should visit your doctor for further specialist advice

Waist circumference

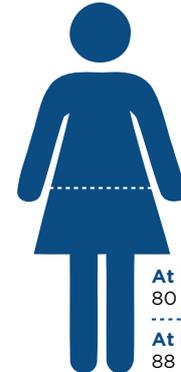
Carrying too much weight around your waist is linked to health risks. This is often referred to as being an 'apple' shape or a 'pear' shape. People with an 'apple' shape tend to carry more fat around their waist. This increases the risk of cardiovascular disease, high blood pressure and diabetes. People with 'pear' shapes carry fat mostly around their hips, which is less of a risk.

Are you 'at risk'?



At increased risk
94 cm

At high risk
102 cm



At increased risk
80 cm

At high risk
88 cm

Aiming for a healthy weight

If you are overweight or have a high waist measurement, you should try to reduce your weight/waist measurement. Even small reductions of 5 to 10% in your weight and waist measurement have been shown to reduce blood pressure, improve blood cholesterol levels, reduce the risk of angina (chest pain) and improve the control of blood sugar levels in people with diabetes.

Tips for weight loss

- If your BMI is over 25 and you have had a stroke, ask your doctor or stroke nurse if they can refer you to a dietitian for an individualised healthy weight-loss diet
- If you do not have a dietitian, contact the Heart and Stroke Foundation South Africa's Health Line at **0860 1 HEART (0860 1 43278)** for advice and a weight-loss meal plan
- Avoid fad or crash diets and over-the-counter diet supplements
- Remember that losing weight takes time. Follow a healthy, balanced diet, where you can lose weight slowly and safely over time. A weight loss of 0.5kg – 1kg per week will ensure that it's fat (not water) being lost

- Regular physical exercise is just as important as adjusting your eating plan (see the 'Be physically active' section on page 133)

What to do if you have been losing weight unintentionally

There are a number of factors that can cause people to lose weight unintentionally e.g. your portions may have become smaller, your eating pattern may have changed or you may be doing more physical activity without increasing your food intake.

Over time, if the weight loss continues, you could become tired very easily and it may be difficult for you to carry out your daily activities. If you are concerned about unintentional weight loss, you can ask your stroke nurse or doctor to refer you to a dietitian.



Smoking

Smoking is a major risk factor for stroke. Chemicals in cigarettes damage the lining of arteries and add to the build-up of fatty material within the walls of the arteries (atherosclerosis). Nicotine raises your blood pressure and the carbon monoxide in tobacco smoke reduces the amount of oxygen your blood carries to the brain. Cigarette smoke also makes your blood thicker and more likely to clot. Remember that breathing in other people's smoke is also harmful, so protect yourself by avoiding second-hand smoke.

Stop smoking

If you smoke or use tobacco-related products, such as chewing tobacco, giving up will help to reduce your risk of having another stroke. Most smokers want to stop and it is the single most important thing a smoker can do in order to live longer and to feel healthier. It doesn't matter how old you are or how long you have been smoking.

It's never too late to stop smoking, and as soon as you stop, your risk of stroke will lessen. Giving up smoking is not easy and many people have to make several attempts before they succeed in giving up for good. Starting to smoke again isn't a failure but not trying to stop again is! So, keep trying.

Preparing to stop:

- Decide to stop
- Make a list of the reasons why you want to stop
- Identify triggers that make you want to smoke. This will help you to manage difficult situations when they arise
- Decide whether you want to stop gradually or suddenly

Contact the **National Quit Line at 011 720 3145**, or the **Heart and Stroke Foundation South Africa's Health Line at 0860 1 43278** about various Stop Smoking Programmes for advice.

- Get support from your family, friends and co-workers, and tell them you plan to stop
- Get information/counselling from a 'Stop Smoking' organisation. You have the best chance of stopping smoking successfully if you get support. It is helpful to have someone to talk to in desperate moments, such as a friend who has stopped successfully or a stop smoking telephone helpline.
- Contact the National Quit Line at 011 720 3145, or the Heart and Stroke Foundation South Africa's Health Line at 0860 1 43278 about various stop smoking programmes for advice about stopping and local support services
- Be strongly motivated

Some helpful tips for quitting:

- Commit yourself by setting a stop date
- Have a plan for the stop day. Throw away all smoking materials, such as your cigarettes, ashtrays, lighters and matches

- Change your habits and routine to stay smoke-free
- Avoid associations with cigarettes e.g. avoid smokers or going to places where you used to smoke
- Exercise and be more active
- Eat healthily to prevent weight gain. Many people don't gain excessive weight when they stop smoking. For most people, the average weight gain is only about 2 kg. Remember that the physiological effects that could result in weight gain are only temporary and can be avoided altogether with a little planning and by making the right food choices! Try not to snack on fatty foods. If you need to snack, eat low caloriesnacks (fruit, crunchy raw vegetables or sugar-free gum) and drink plenty of fresh water or sugar-free herbal teas (e.g. rooibos)
- Find ways to cope with withdrawal symptoms. Discuss the possibility of using nicotine replacement therapy (NRT) with your doctor or pharmacist to ease withdrawal symptoms. There are many smoking-cessation aids on the market, but it is important to check whether the product is safe and effective, before you waste money, time and effort. Speak to your doctor or pharmacist for advice about the best method for you

“If you need to snack, eat low calorie snacks (fruit, crunchy raw vegetables or sugar-free gum) and drink plenty of fresh water.”

- Find out more about NRT or other credible stop-smoking products, if you choose these routes. NRT can help improve your chances of stopping smoking successfully. NRT comes in various forms, so it is worthwhile finding out if it is necessary for you and which one would suit you best.

After one week, you will feel the benefit. It usually takes a few months of not smoking to be fully comfortable with your new lifestyle. Remember to always think of yourself as a non-smoker.



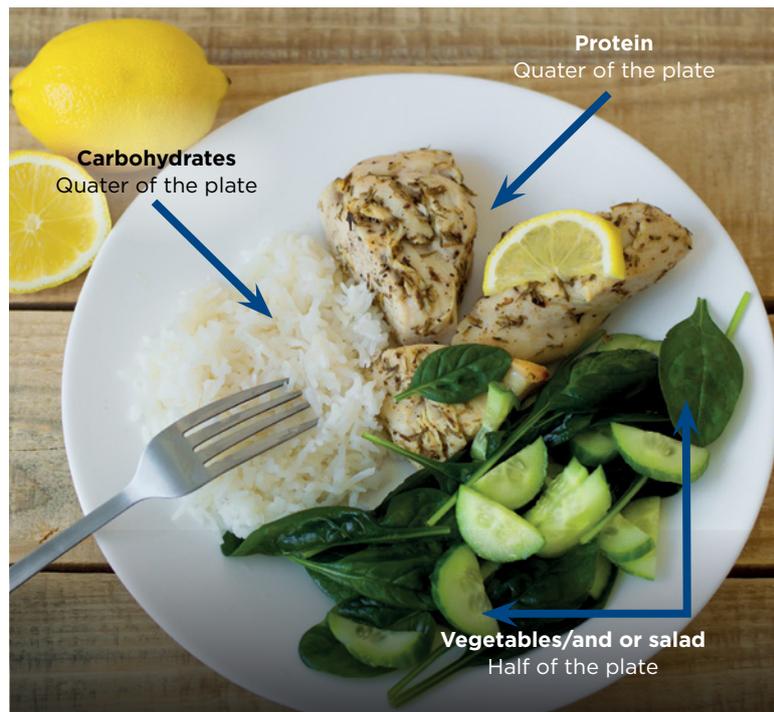
Unhealthy diet

An unhealthy diet, which is high in calories, fat, salt and added sugars, but poor in vegetables, fruit and fibre, may contribute to the development of obesity, as well as conditions such as high blood pressure, diabetes and high cholesterol. It is important to follow a healthy, balanced diet, to prevent yourself from developing cardiovascular disease.

Healthy eating

You can reduce your chances of having another stroke by making simple changes to the food you eat. A healthy varied diet is an important contribution to helping you maintain a healthy weight, lower your cholesterol level or lower your blood pressure.

The healthy plate model



The 'healthy plate model' makes healthy eating easier to understand, by showing the types and proportions of foods we need in order to have a healthy and well-balanced diet.

Use the 'healthy plate' to help you get the balance right. It shows how much of what you eat should come from each food group.

Ideally, you should base your diet on high-fibre starchy foods, vegetables and fruit, add moderate quantities of lean meat and low-fat dairy products, and limit the intake of unhealthy fats, salt and sweets.

To eat a healthy, varied diet:

- Enjoy a variety of foods
- Eat three smaller, regularly spaced meals every day, including breakfast

“Eat two portions of fish per week, one of which should be oily e.g. sardines, pilchards, mackerel, salmon, tuna, herring and trout.”

- Aim to eat at least five portions of vegetables and fruit each day, if possible
- Make starchy foods, especially those rich in fibre, the basis of most meals
- Avoid eating too much fat. Make sure that the fats you do eat are healthier fats
- Limit your intake of red meat; include legumes (beans, peas, lentils) regularly, as alternatives to meat
- Eat two portions of fish per week, at least one of which should be naturally fatty fish e.g. sardines, pilchards, mackerel, salmon, tuna, herring and trout
- Have at least two servings of milk/dairy products (preferably low-fat or fat-free) every day
- Limit your intake of refined and sugary foods
- Reduce your salt intake

Fruit and vegetables

Increasing vegetable and fruit intake is recommended, as they are rich sources of vitamins, minerals, antioxidants and soluble fibre. An antioxidant is a substance that helps to protect the cells in your body against damage. Soluble fibre is found in legumes (beans, peas, lentils) and in some vegetables and oats.



Soluble fibre helps your body absorb sugary foods slowly, making you feel fuller for longer, and may help to reduce your cholesterol.

Aim to eat at least five portions of vegetables and fruit each day. In general, one portion of fruit is approximately one medium fruit. A vegetable serving is one cup of raw vegetables or half a cup of cooked vegetables.

Try to eat a variety of fruit and vegetables each day. Dried fruit and fruit juice should only be counted once during the day towards your total fruit and vegetable portions, as they are higher in natural sugar than fresh fruits and vegetables.

Starchy Foods

Starchy foods include bread, cereals, mielie meal, samp, rice, pasta, noodles and potatoes. They are a good source of long-lasting energy and help to fill you up. The best types of starchy foods are those that are higher in fibre or wholegrains. Therefore, try to include a high-fibre starchy food at each meal time.

Eating higher fibre starchy foods can prevent constipation and could reduce the risk of bowel cancer. The lower fibre starchy foods can easily be replaced with higher fibre starchy foods in your diet.



You should eat at least six servings of starches per day, of which at least half should be high in fibre or whole grains. A starch serving is one slice of bread or half a bread roll or half a cup of ready-to-eat cereal or cooked porridge/pasta/samp/ mashed potatoes/rice.



EAT LESS LOWER FIBRE STARCHY FOODS	CHOOSE HIGHER FIBRE ALTERNATIVES
Refined and sweetened breakfast cereals	High-fibre breakfast cereals (e.g. bran flakes, Weet-Bix), oats, mealie meal (pap), Maltabella
White bread, rolls, roti, pita and flour	Whole wheat, brown, seeded or rye bread, rolls, pita, roti and flour
Peeled potatoes	Potatoes cooked in skin
White pasta	Whole wheat pasta
White rice	Brown rice, samp, barley, corn

It is also easy to choose higher fibre snacks or puddings. These should only be eaten in moderation as part of a healthy varied diet.



AVOID LOWER FIBRE SNACKS

Biscuits (shortbread and those with fillings), cup cakes

Plain scone, fruit crumble, doughnuts, 'koeksisters'

Buttered popcorn, crisps, high-fat crackers, cheese biscuits

CHOOSE HIGHER FIBRE ALTERNATIVES

Bran or fruit muffin, oat biscuits

Whole wheat or fruit scone, fruit crumble, made with brown or whole wheat flour

Air-popped popcorn, baked pretzels, whole wheat crackers

Fats

There are two main types of fat: saturated and unsaturated. Diets low in total and saturated fats are recommended for reducing your risk of cardiovascular disease. Fats form an important part of our diet, as they provide us with some vitamins. BUT remember that all fats are high in energy and eating too much can contribute towards unwanted weight gain. Some fats are better for your health than others. Unhealthy saturated

(mostly animal) fats can raise your cholesterol levels, while healthier, unsaturated ones can help to improve them. It is, therefore, important to choose the healthier fats.

Saturated fats

Eating too much saturated fat can raise your LDL (bad) cholesterol, which is harmful. Foods that are high in saturated fats:

- Cakes, biscuits, pastries and processed meat products e.g. salami, pies, hamburgers, sausages
- Lard, butter, ghee
- Fatty meats, poultry with skin on
- Full fat dairy products e.g. full cream milk, cheese, full cream yoghurts, cream

Try to reduce the amount of high saturated fat foods in your diet and replace them with healthier, unsaturated fats.

Unsaturated fats

Unsaturated fats can help to lower blood cholesterol levels. There are two types of unsaturated fat – polyunsaturated and monounsaturated fats. Polyunsaturated fats include omega-3 fats and

omega-6 fats. The former is found in naturally oily fish such as mackerel, salmon, sardines and pilchards, and omega-6 fats are found in plant products such as sunflower, corn and soya oils and margarines labelled

“ There is evidence to show that a diet similar to that traditionally found in the Mediterranean countries helps to improve your cholesterol levels.”

Monounsaturated fats include olive, canola and nut oils, and margarines made from these oils. Avocados and mixed nuts (not coconut) also contain a good proportion of monounsaturated fat. There is evidence to show that a diet similar to that traditionally found in and around the Mediterranean countries helps to improve your cholesterol levels. This diet is rich in fish, fruits, vegetables, olive oil, nuts and seeds.



To reduce your saturated fat intake, try:

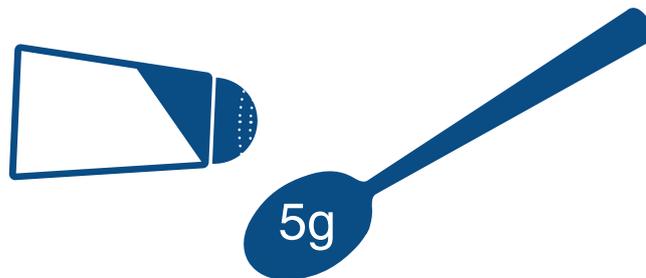
- Using margarine made from vegetable, oil such as sunflower, canola or olive oil.
- Boil, bake, grill, steam, microwave or stir-fry when cooking
- If fat is really needed for cooking, rather use oils such as sunflower, canola or olive oil, instead of butter or ghee and use one teaspoon of oil per person
- Use cooking sprays, where possible
- Choose low-fat or fat-free dairy products e.g. skimmed milk or low-fat yoghurt
- Choose reduced fat varieties of cheese, such as cottage cheese, low-fat mozzarella and ricotta, reduced fat varieties of hard cheese or smaller amounts of full-fat cheese
- Trim the fat off meat prior to cooking and avoid poultryskin
- Limit your intake of fried foods and processed meat products e.g. viennas, salami or polonies
- Choose snacks that are low in saturated fats, such as fruit, whole wheat bread, nuts, low-fat yoghurts, higher fibre breakfast cereals
- Limit your intake of sweet foods that are also high in fat, such as cakes, chocolates, sweet pastries, puddings and some ice-cream varieties

Fatty fish

The omega fats in naturally fatty fish can help to regulate your heartbeat, prevent your blood from clotting and protect your blood vessels from damage. Aim to eat at least two portions of fish per week, one of which should be fatty fish, which includes sardines, pilchards, mackerel, salmon, tuna, herring or trout. One portion is about 100g.

Salt

Too much salt in your diet can raise blood pressure, which increases your risk of stroke. People with high blood pressure are advised to reduce their salt intake as much as possible, to lower blood pressure. Most people eat too much salt without realising it. Three quarters of the salt we eat is already in the food we buy, such as breakfast cereals, soups, breads, sauces and ready-meals.



The recommended amount of salt is no more than five grams per day (one teaspoon). This includes the salt that is hidden in foods.

Salt is often listed on food labels as sodium. To convert the sodium value to salt, multiply the grams of sodium by 2.5. For example, if a food contains 0.8g sodium per 100g, this equals: $0.8 \times 2.5 = 2$ g salt per 100g of food.

To reduce your intake of salt, try:

- Tasting your food before adding salt at the table. Some people put salt on everything before even tasting it. This is a habit your taste buds get used to, so try to reduce the amount of salt you add to your food gradually. Even better, take the salt shaker off the table, so you are not tempted.
- Using only small amounts of salt or stock cubes in cooking. Use pepper, garlic, herbs and spices to flavour your food
- Cutting down on:
 - Tinned foods e.g. canned soup
 - Processed foods e.g. pies, viennas, sausages, bacon, pizza, smoked chicken, smoked snoek
 - Ready-meals
 - Fast foods
 - Salty snacks e.g. salted crisps, nuts, crackers, biltong

- Choose products that state they are low in salt or reduced salt
- Avoid using salt substitutes, such as low sodium salt as they contain plenty of potassium and may be harmful to diabetics, as well as to those with kidney problems or heart disease. Vegetable salts are also not advisable as these are also generally high in salt.
- It is best to allow your taste buds to adjust to less salt

Understanding food labels

Food labels can help you to choose foods that are healthier. But food labelling can be very confusing. If you want to know whether a food is high or low in a particular nutrient, then you can look at the nutritional information panel on the following page. This will show the nutritional content of the food per 100g. The table can be used as a guide to what is 'a lot' and what is 'a little'.



NUTRIENT

**A LOT PER
100g**

**A LITTLE
PER 100g**

Fat

20g and over

less than 3g

Saturated fat

5g and over

less than 1.5g

Total sugars

15g and over

less than 5g

Sodium

600mg and
over

less than
120mg

Drinking alcohol excessively

Besides being bad for your general health, heavy drinking can increase your blood pressure and your risk of stroke. Binge drinking can increase the chance of stroke by up to five times.

Limit alcohol intake

If you enjoy alcohol, the good news is that drinking a small amount of alcohol each day is perfectly safe for people after TIA or stroke, but limit it to:

- Two small drinks per day for men
- One small drink per day for women

One drink is equivalent to:

- 330 ml (1 can) beer
- 120 ml (1 small glass) wine
- 60 ml (1 liqueur glass) sherry
- 25 ml (1 tot) liqueur or spirits (eg. whisky, brandy, vodka, gin)

Drinking three or more units of alcohol every day is not advised, as it increases the risk of high blood pressure. Both men and women are advised to have at least two alcohol-free days a week. Don't 'save up' your units – space your drinking over the week.

Some people should not consume alcohol at all if you:

- Have a history of liver disease, pancreatitis, heart failure, uncontrolled high blood pressure or high triglyceride levels
- Have balance disorders or seizures
- Are overweight
- Are on medication that reacts adversely to alcohol (if in doubt, speak to your doctor or pharmacist)

Inactivity

Physical inactivity contributes to the risk factors for cardiovascular disease (overweight, high blood pressure, diabetes and abnormal high blood cholesterol).

Be physically active

Keeping as physically active as possible can help to lower your chance of having another stroke. As well as improving your general health, regular physical activity can help:

- Reduce high blood pressure
- Improve blood sugar control in diabetics
- Maintain a healthy body weight
- Improve cholesterol levels (raises HDL 'good' cholesterol)
- Make muscles (including your heart) more efficient
- Improve blood circulation
- Reduce stress, anxiety and depression

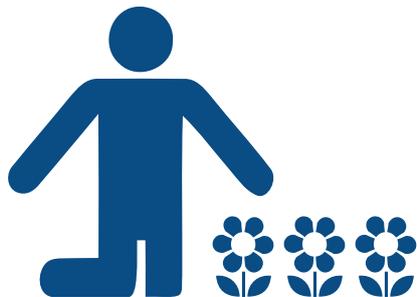
“Do what you can to keep active within your ability. Don't overdo it.”

If you have had a stroke, you may have difficulty doing some activities, so do what you can to keep active within your ability. Don't overdo it. Some people will be able to manage swimming or walking, while others might just be able to manage simple exercise that can be carried out while sitting down.

If you have problems with moving around, get some advice about what exercises you can do while sitting down. Here are some examples of weight-lifting exercises:

- Arm exercises, with a small weight in your hands
- Raise your legs up and down, with small ankle weights

Ask your doctor or physiotherapist (if you have one) for advice on exercises that are suitable for you. If you have increased muscle 'tone', then you should take particular care to get advice.



If you have had a TIA or a stroke that has not affected your mobility, try to build some moderate activity into your usual routine:

- Walk for five to 10 minutes instead of taking the bus, taxi or car
- Take the stairs, instead of the escalator or lift
- Try a little gardening
- Play with your children or grandchildren
- Walk the dog

Experts say that you should aim to accumulate at least 30 to 60 minutes of moderate physical activity on most days of the week. This can be done all at once, or in smaller sessions of around 10 minutes. Any physical activity is good for you, as long as you are active enough to become warm and slightly out of breath. You can achieve this by walking briskly, dancing, swimming or climbing stairs



As a stroke survivor, you will have to work with your doctor, physiotherapist and other members of your rehabilitation team to decide what activities are safe for you to do, and how strenuously you should exercise.

It is recommended that you keep your intensity of exercise moderate, rather than work very hard for short periods. If you build up your activity slowly, it should not be harmful. If you are having problems, ask your doctor or physiotherapist for advice. If you also have a heart condition, you should consult your doctor or cardiologist before exercising.

Stress

The term 'stress' is used to describe the way we feel when too many demands are placed on us or when tensions are high. People vary in what they find stressful and in how they cope with stress. Some people may eat more, some people may eat less, some people may try to relax quietly, while others may feel they need to engage in some activity.

“Common sources of stress are relationships, work, ill-health, money problems and major life events or changes.”

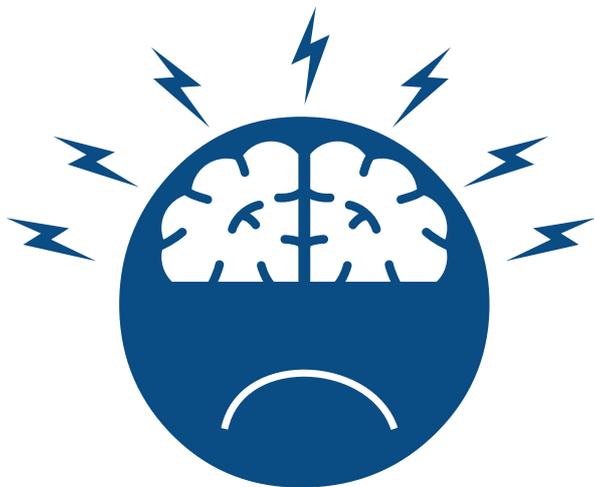
For others, stress may lead them into unhealthy lifestyle choices, such as smoking, drinking too much alcohol or eating high-fat comfort foods.

Some stress is unavoidable, and if too many things happen at once or are prolonged, stress levels can become too high. We need to get the balance right and identify the things that cause us stress and recognise when they are affecting our health.

Things that people find stressful

Life is full of different types of stress. Common sources of stress are relationships, work, ill-health, money problems and major life events or changes. Sometimes, several life events happen at once and this can tip the balance from coping to not coping. If every area of your life seems difficult and you have symptoms such as persistently feeling sad over several weeks, you could be depressed and may need further counselling, help or medication from your doctor. It is important to talk things over with other people, such as family, friends or a health professional, rather than bottling up your feelings.

All illnesses are stressful. After a stroke, people's reactions vary and can change over time. Some people feel so overwhelmed that they initially deny their illness. Many people may feel frightened and anxious. Some people may be angry at why it has happened to them and others may feel a lack of confidence in resuming previous activities and lifestyle. If you have a disability, and major changes affect you and your family's life, it is not surprising that you and your family experience a range of emotions and difficult feelings. Talk to your doctor, stroke nurse or other health care professionals if you have any specific concerns.



Tips to reduce stress:

Coping with the stresses of life can make you feel more in control and good about yourself. Here are some tips to help you cope with stress:

- Identify what you are feeling and talk about it to a sympathetic friend – having others to rely on for support is a significant factor in controlling stress
- Seek professional help or information, if you are unsure about any aspect of your stroke or your recovery
- Work out what your priorities are and drop the less important things
- Manage your time and be assertive by learning to say no
- Monitor any negative thinking – could things be viewed differently?
- Find more ways to relax and give yourself a treat
- Make sure that you make time for rest and relaxation
- Having a good night's sleep will help you cope with stressful situations
- Try to make positive changes to your lifestyle
- If you are able to exercise, aim to achieve 30 minutes,

at least five days a week. It can help make you feel more positive, energetic and give you time out from your daily routine

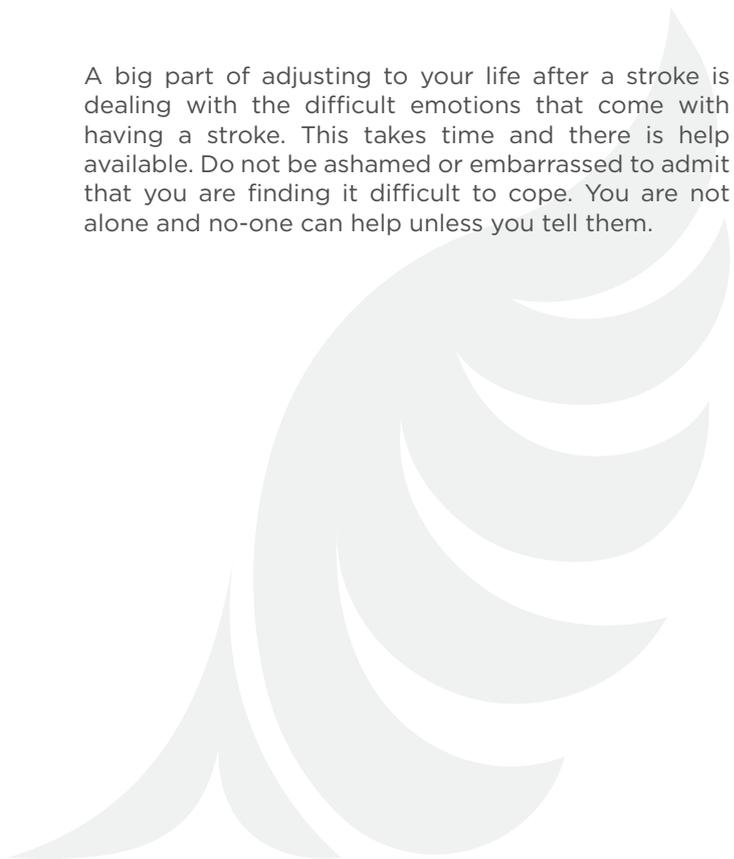
- If you drink alcohol, drink in moderation
- Eat a balanced diet, with regular meals, to maintain your recommended weight
- Cut down on caffeine (eg. coffee, tea and cola drinks) and drink plenty of water
- Stop smoking

Changing your lifestyle in this way can make you feel physically fitter and better able to cope with stressful situations.

Do I need to go get professional help?

You may need further help if the information offered here is not detailed enough, or symptoms of stress are regularly affecting your ability to cope with your responsibilities or relationships. You may also need help if you think you are depressed, regularly use addictive substances (eg. alcohol, cigarettes, illegal drugs) to cope with stress, or if you have any thoughts of self-harm. Remember, too much stress can affect anyone at any time of their life. Getting professional help is a positive step to take.

A big part of adjusting to your life after a stroke is dealing with the difficult emotions that come with having a stroke. This takes time and there is help available. Do not be ashamed or embarrassed to admit that you are finding it difficult to cope. You are not alone and no-one can help unless you tell them.



MY Medicines



Taking medicines may be new to you and may seem overwhelming at first, because there is quite a lot to remember. In this section, we hope to answer most of the common questions about your medicines and help you to understand why you need to take them, how they work and include a list of their most common side effects.

The medicines we have today to treat stroke are effective, but only if taken exactly as directed by your doctor. It is important that you do not stop taking your medicines or change how much you are taking without speaking to your doctor. In some cases stopping medication suddenly can be dangerous, in some cases.

How can I remember to take my medicines?

- Take your medicines at the same time every day, so it becomes a routine

Link taking your medicines with daily events, such as tooth brushing or at meal times

- Special pillboxes are available with seven separate compartments for the days of the week. Some boxes also have slots for different times of day - morning, noon, late afternoon and bedtime. If you need one, ask your pharmacist
- Ask people who are close to you to help remind you to take your medication

- Keep a 'medicine calendar' near your medicines and tick off every time you take your dose
- Attach reminder notes to something you would normally use or see every day e.g. the fridge door

How do I take my medicines?

You would take most medicines, such as tablets or capsules, by mouth (orally). You should take them when you are sitting or standing up (never lying down) and wash them down with a glass of water or semi-solid liquid (such as yoghurt or porridge), especially if you have problems swallowing liquids.

This ensures that the medicine reaches your stomach without getting 'stuck'. If you are sitting, try to take a little of something semi-solid (yoghurt or porridge) after taking medicine. Medicine should not be swallowed while lying down.

If you have trouble swallowing, then tell your pharmacist. They can help to get your medicines in a different form, e.g. a liquid that you can swallow more easily. A speech therapist can also advise you on various swallowing techniques.



How should I store my medicines?

Keep all medicines away from heat, sunlight and moisture or dampness. You should try to store them in a locked cupboard. Keep them in their original containers and do not remove the labels. 'Childproof' bottles don't always stop determined youngsters, so keep them out of reach of children.

What else should I know?

- Always get your prescription in time, so that you don't run out of medication. Don't forget to order medicines in plenty of time at Christmas, Easter and other holiday times
- Try to visit the same pharmacy with your prescriptions each time
- Never stop taking your medicine without speaking to your doctor, stroke nurse or pharmacist first
- Never take more than the prescribed dose. Even if you forget to take a dose, never take double the next time to make up for the one that you missed
- Always ask your pharmacist before buying over-the-counter medicines, to be sure they won't clash with your prescription medicines. Some important non-prescription medicines that can interfere are cough and cold remedies, painkillers and fizzy cures for heartburn or indigestion



- If you have any questions about your medicines, ask your doctor, stroke nurse or pharmacist
- If you don't remember the name of your tablets, make sure that you keep a list of them, especially if you are attending a clinic or if you're not going to your usual doctor
- If you deal with two pharmacies, make sure that they each have your medicines loaded onto their system. If it's difficult to get there yourself, check whether they are prepared to deliver and if there is a cost involved
- Tell your doctor, stroke nurse or pharmacist if you think you have any side-effects from the medication.
- Try to remember the name of your medicine and the dose. Most medicines have two names. One is the proper or generic name (which is the active ingredient) and the other is the brand name. The manufacturer chooses the brand name.
- If you have difficulty opening the bottle or other medicine container, make sure you let your pharmacist know and they will offer you one that is easier to open.

Remember, never give your medicine to anyone else!

It may harm them, even if their symptoms are the same as yours.

Anti-platelet drugs

What do they do?

Anti-platelet drugs lower your chance of having another stroke or TIA (mini-stroke). They reduce the blood-clotting effect by making some blood cells called platelets less 'sticky'. There are several kinds of anti-platelet medicines. The most commonly used is aspirin.

“If you don't remember the name of your tablets, make sure that you keep a list of them.”

Clopidogrel is an alternative, but is more expensive than aspirin. Patients should not take a combination of aspirin and clopidogrel, because of the increased risk of bleeding. The combination of dipyridamole and aspirin also offers a small additional benefit of reducing the risk of another stroke, compared to using aspirin alone.

If you've had a cerebral haemorrhage (bleed), then you should **NOT** be offered aspirin or any of the other antiplatelet drugs until six weeks after your stroke; and then only if you have another reason for taking it, such as coronary heart disease.

“Don't stop taking the tablets. If you notice prolonged or unusual bleeding or bruising, consult your doctor urgently.”

How do I take them?

Aspirin is taken once a day, after food, in order to prevent stomach upsets. They are normally taken for life. Clopidogrel is taken once a day, after food. The dipyridamole/aspirin combination is taken twice a day, with food.

Side effects

Side effects are uncommon, but a few people may get stomach upsets (such as burning or indigestion). If you think the aspirin or clopidogrel is upsetting your stomach, tell your doctor. Don't stop taking the tablets. If you notice prolonged or unusual bleeding or bruising (such as bleeding from your nose or mouth, your bowel motions are black, or you have bruising on your arms or legs) consult your doctor urgently. Clopidogrel can also sometimes cause a rash.

Dipyridamole can give you headaches in the first week after you start taking them. If you suffer from angina and notice an increase in symptoms after starting dipyridamole, contact your doctor. If you think you have any other side effects from this medicine be sure to mention them to your doctor, stroke nurse or pharmacist.

WARFARIN

What does it do?

Warfarin prevents blood clots by thinning your blood. If you have an irregular heartbeat (such as atrial fibrillation), be sure to discuss taking this drug with your doctor, to see whether it's right for you. Warfarin is very powerful in stopping your blood from clotting, but your doctor needs to keep a very careful watch over how thin your blood is.



If it gets too thin, you can bleed very easily. Sometimes even a very soft knock can cause a lot of bruising. Of course, if your blood isn't thin enough then you won't benefit. The test to check the effect of warfarin on your blood is called an International Normalised Ratio test. You should make sure you know what your 'target INR' range is.

There should be an INR clinic nearby where you can go for regular blood checks. The nurse or pharmacist will tell you how often to go and it's very important that you don't miss a visit.

“If you notice any abnormal bruising or bleeding, you must tell your doctor immediately.”

How do I take it?

You should take the warfarin tablets by mouth once a day, and it is important to take them at the same time every day.

Side effects

If you are taking warfarin, you can occasionally have a problem with bleeding from your nose or gums and you will bruise much more easily. Sometimes blood

may appear in your urine or bowel motions. If you notice any abnormal bruising or bleeding, you must tell your doctor immediately.

What else should I know?

Many common medicines, even those purchased in supermarkets and health food shops, such as St Johns Wort, can make warfarin less effective. Always check with your doctor or pharmacist before taking any non-prescription medicine, such as herbal supplements, Chinese medicine or medicines normally applied to the skin or used rectally.

There is a higher risk of bleeding if you take warfarin and antiplatelet medication (such as aspirin), so try to avoid injuries or falls. When you go to the dentist or have medical treatment or surgery, make sure that you tell him/her that you are taking a blood thinner.

If you take paracetamol every day, you can increase the effect of warfarin and bruise and bleed easily.

Before you take any new medicines, you must first check with your doctor, stroke nurse, anticoagulant clinic or pharmacist.

Do not forget to mention medicines you buy yourself.

Let your doctor or stroke nurse or blood check clinic know if you are going to stop taking any medicine. That might mean you need more or less warfarin.



Drinking alcohol may cause problems if you are on warfarin. The occasional drink of one or two units (1 unit = 1 small glass of wine or 1 can of beer or 1 tot of spirits), should not affect your warfarin, BUT regular heavy drinking or binge drinking should be avoided.

Vitamin K decreases the effect of warfarin. Rather than avoiding all foods that contain vitamin K, try to keep to your usual diet and avoid sudden changes in your diet. This will help to keep your vitamin K intake consistent and help your doctor and nurse at the blood check clinic to regulate your warfarin more easily. For more advice, speak to your doctor, anticoagulation nurse or a dietitian. Avoid drinking cranberry juice and large quantities of green tea, as it may affect the levels of warfarin in your body.

New drugs are becoming available as a substitute for warfarin e.g. dabigatran, that do not require INR testing, but which are far more expensive.

Blood pressure lowering drugs

High blood pressure can usually be controlled with one or more tablets. Often people will need three or more tablets. If you are feeling unwell or experiencing side effects from any of your tablets, you should tell your doctor and discuss alternative medication. Most people don't experience any symptoms when their blood pressure is high, so it can be a challenge to keep taking tablets when you don't feel that you need to. Remember that high blood pressure is one of the most important risk factors for stroke and it needs to be carefully managed and controlled to reduce your risk. Taking your tablets exactly as prescribed can greatly lower your chance of another stroke.



However, even with tablets, your blood pressure can change, so you should have it checked by your doctor or nurse regularly.

The drugs most often used to treat high blood pressure if you have had a stroke are thiazide diuretics, ACE inhibitors, beta-blockers and calcium channel-blockers. There is more information about these in the next few pages.

There are one or two other kinds of medicines that can be used if these drugs have not been successful in getting your blood pressure down to 130 (higher number) and 80 (lower number) or if they have given you side effects that you can't cope with.

If your blood pressure is still more than 130 (higher number) or 80 (lower number), you should ask your doctor or stroke nurse about increasing or changing your medication.

Ace inhibitors

What do they do?

ACE inhibitors have many complex actions and together these actions reduce your blood pressure, lower your chances of a heart attack or stroke and reduce your risk of dying. In patients with heart failure, symptoms improve when treated with ACE inhibitors. Common ACE inhibitors are enalapril, lisinopril, perindopril and ramipril.

How do I take them?

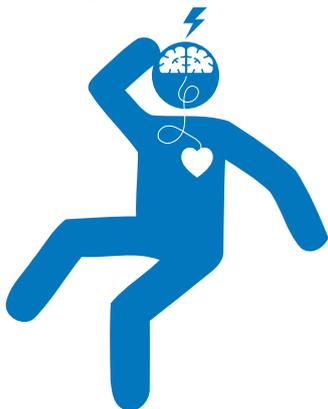
ACE inhibitors are taken by mouth and preferably at the same time each day. They can increase the potassium level in the blood. As too much potassium can be dangerous, especially for the heart, it's important not to take potassium supplements or potassium-sparing diuretics (e.g. amiloride, spironolactone or triamterene) or salt substitutes (that are potassium chloride based).

Certain painkillers and anti-inflammatories (e.g. Nurofen or ibuprofen) can cause kidney problems if you take them with your ACE inhibitor. If in doubt, ask your doctor or pharmacist.

“Some people taking ACE inhibitors can get a dry cough and if you do – tell your doctor.”

Side effects

ACE inhibitors usually cause no problems, but some people get a dry cough and if you do, you should tell your doctor. ACE inhibitors can also cause kidney problems. Your kidney function should be checked by blood tests. So, if you are taking an ACE inhibitor and have not had a blood test within the last 12 months, ask your doctor to arrange one.



When you take the first dose, you might feel dizzy. This may be due to a marked lowering of blood pressure. If this happens, lie down until it passes. If you keep having this problem, then tell your stroke nurse, doctor or pharmacist.

“If you think you have any side effects from this medicine, be sure to mention them to your doctor, stroke nurse or pharmacist.”

Less common side effects include rashes and diarrhoea. Very rarely, ACE inhibitors can cause a major allergic reaction, which includes breathing difficulties or swelling of the face, including lips and tongue. In this case, urgent medical advice must be sought.

If you think you have any side effects from this medicine, be sure to mention them to your doctor, stroke nurse or pharmacist.

Angiotensin receptor antagonists

Angiotensin receptor antagonists (e.g. candesartan, irbesartan, losartan and valsartan) are used if an ACE inhibitor gives you a troublesome cough that won't go away and is annoying. They are similar to ACE inhibitors.

“Diuretics don’t usually cause any problems. They can lower the potassium in your blood, but this is rare with the small doses used

Diuretics

What do they do?

Diuretics (water tablets) help to lower your blood pressure in a lot of complex ways. What you may notice is that you pass more urine as the pills remove water and salt from your body.

How do I take them?

You take them by mouth, usually once a day, in the morning. You don’t have to take them at the same time each day.

Side effects

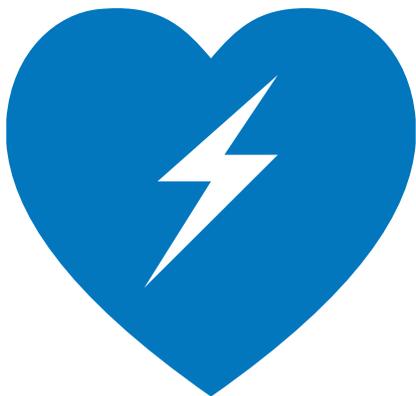
Diuretics don’t usually cause any problems. They can lower the potassium in your blood, but this is rare with the small doses used to lower blood pressure.

What else should I know?

There are two kinds of diuretics. The first are called ‘thiazides’. The most common one is hydrochlorothiazide. Another is indapamide. These diuretics start to work within two hours and the effect lasts for more than 12 hours. They will not make you rush to the toilet immediately after taking them. You should avoid taking them in the evening or at bedtime in case you have to get up during the night.

The other kind of diuretic, called a loop-diuretic (e.g. furosemide) works over six hours and can make you pass large volumes of urine in this time, starting very soon after you start taking the tablet.

“If you think you have any side effects from this medicine, be sure to mention them to your doctor, stroke nurse or pharmacist.”



Beta-blockers

What do they do?

Beta-blockers help to slow the heart rate, so they reduce the work that the heart has to do. Some of the benefits are:

- They lower your blood pressure
- If you have atrial fibrillation (see the 'Lifestyle changes to prevent another stroke' section on page 91) the slower heart rate makes you feel better

Beta-blockers are also sometimes used for the treatment of angina, or after a heart attack or heart failure.

There are many kinds of beta-blockers. The names all end in '-olol'. The most common is atenolol. There are many more such as sotalol, timolol, metoprolol, bisoprolol, acetvutolol, nebivolol, labetalol or propranolol.

How do I take them?

Beta-blockers are usually taken by mouth, once or twice a day. If you have angina, stopping them suddenly could worsen the condition. Always ask your doctor before stopping any medication. People who have asthma should not take beta-blockers.



Side effects

Beta-blockers can sometimes cause a few problems. Since they slow your heart, you may be less able to manage strenuous physical activity. Less common side effects include cold hands and feet. A few men may get problems with erections, which they should discuss with their doctor.

If you think you have any side effects from this medicine, be sure to mention them to your doctor, stroke nurse or pharmacist.

Calcium channel blockers

What do they do?

Calcium channel blockers relax the blood vessels and lower blood pressure. Some of them also lower your heart rate. There are two types of calcium channel blockers.

The first type includes verapamil and diltiazem. These lower your blood pressure and also slow your heart rate. People with angina sometimes take this to stop them getting chest pain. Usually, you should not take this type if you are taking a beta-blocker, which also lowers your heart rate, as together they could slow your heart rate and make you very ill.

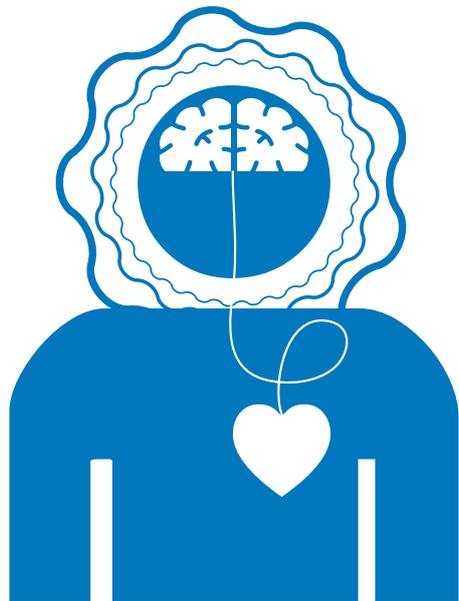
The second type does not have this slowing effect and is safe to use along with a beta-blocker. It includes nifedipine and amlodipine. This kind is not used for an irregular heartbeat, but for lowering your blood pressure or helping to manage angina symptoms.

How do I take them?

There are many different calcium channel blockers and it is important to stay on the same brand. You usually take them by mouth and, depending on the brand, you might need to take them as often as three times a day. It is important not to crush or chew your tablets or capsules; just swallow them with water. If you are taking a calcium channel blocker, you should avoid grapefruit and grapefruit juice, as this can cause the amount of the drug in your body to build up to harmful levels.

Side effects

Calcium channel blockers don't usually cause problems, but can occasionally cause flushing of the face, headaches and dizziness. They can also cause ankle swelling. Verapamil can cause constipation.



“If you think you have any side effects from this medicine, be sure to mention them to your doctor, stroke nurse or pharmacist.”

Cholesterol-lowering drugs

What do they do?

Cholesterol is a type of fat, and if you have too much cholesterol in your blood, it increases your risk of stroke or a heart attack. The most commonly used medicines to lower cholesterol are the ‘statins’ (e.g. simvastatin, pravastatin, atorvastatin and rosuvastatin).

Another group of medicines to lower cholesterol are called ‘fibrates’ (e.g. bezafibrate).

Most people with ischaemic strokes are likely to require a statin. If you are not on a statin, ask your doctor about them.

How do I take them?

You usually take medicines to lower cholesterol once each day and they work best if taken just before bedtime. Fibrates may need to be taken more than once a day, but your doctor will tell you if this is necessary.

Side effects

The most common side effects are stomach upsets, such as nausea, constipation, diarrhoea and wind. These side effects generally disappear after a week or so. Occasionally cholesterol-lowering drugs can cause muscle or liver problems, so if you have any unusual muscle pain you should stop your tablets and see your doctor as soon as possible.

If you are taking a simvastatin or atorvastatin, you should avoid grapefruit and grapefruit juice, as this can cause the amount of the drug in your body to build up to harmful levels.



USEFUL Information



Stroke support

There are a number of voluntary organisations that can provide information and support to those affected by stroke.

The Heart and Stroke Foundation South Africa

Tel: 021 447 6268

Email: heart@heartfoundation.co.za

Website: www.heartfoundation.co.za

Health Line: 0860 1 43278 (0860 1 HEART)

Stroke Aid Society:

Tel: 011 728 2292

Email: info@strokeaid.org.za

Website: www.strokeaid.org.za

The Stroke Survivors Foundation

Tel: 082 889 1800

Email: info@strokesurvivors.org.za

Website: www.strokesurvivors.org.za

Home-based carers

Speak to your social worker or the sister in charge at your local hospital or community health care centre to find out if there are any home-based carers in your community.

Money matters

Being affected by stroke is a very worrying time, and money worries are often a major concern:

- Can I afford my bond payments?
- Will I be able to meet household costs?
- Can I claim insurance on loans and credit cards?
- Am I entitled to any benefits or disability grants?

You can get confidential advice and assistance from a social worker at the hospital or community centre.

Prescriptions

Prescriptions for medication are usually given by your doctor at the time of discharge. These can be renewed at your rehabilitation or community health care centres. If you have medical aid (health insurance), then your pharmacist will be able to provide you with medication accordingly.

Going back to work

Returning to work is different for different people. You should speak to your stroke nurse or doctor if you have any worries or don't feel well enough. The occupational therapist can give you advice about returning to work and, if necessary, can

speak to you about adaptations in your workplace. Also, together with the social worker, he/she can give recommendations for finding suitable employment or training if required.

Volunteering

There are lots of benefits to volunteering. By becoming a volunteer, you could help other people and also help yourself to recover after a stroke.

Volunteering can help you to:

- Learn new skills and use the skills you already have
- Meet new people and improve your confidence
- Do something you enjoy

For more information, contact the Heart and Stroke Foundation South Africa:

Tel: 021 447 6268

Email: heart@heartfoundation.co.za

Website: www.heartfoundation.co.za



Flying

It is safe to fly after a stroke or TIA but you should advise the company that is arranging your travel insurance that you have had a stroke or about any recent TIA. It is also recommended that you do not fly for the first three months after your stroke, if you have any remaining disability.

Driving

If your doctor has expressed concern about your fitness to drive, he/she may send a letter to the Department of Transport requesting that your driving ability be reassessed. A traffic officer from your local municipality will be appointed to do the necessary

testing and will determine if you need to apply for a new license.

Disability parking

Some public parking areas have spaces close to the entrances of buildings for disabled people. This can help reduce the distance you need to walk to get to stores or mall entrances. To obtain access to disability parking, you must apply for a disability disc at your local Traffic Department. You will also need a written letter from your doctor, stating the nature of your disability.

Wheelchairs

If you have a wheelchair, it is important to keep it well maintained, so that it is safe and comfortable when you are using it. You should make sure that the brakes work, and that the footplates are secure when they are down. Keep tyres well-pumped. If you have a wheelchair from your rehabilitation or community health care centre, speak to your occupational therapist or physiotherapist about maintenance and repairs. If you have purchased your own wheelchair, then your supplier will be able to advise you where it can be repaired, if necessary. They may even offer that service. If you feel that you need a wheelchair, but don't have one, ask your occupational therapist or physiotherapist about buying or hiring one.

If your wheelchair is uncomfortable, or if you have one that you push yourself, but feel you can't manage that anymore, then ask your occupational therapist or physiotherapist about alternatives.

Other mobility devices

There are various mobility devices or tools that can help you get around at home or outside. If you need one, your physiotherapist or occupational therapist will be able to advise you, according to your specific needs. Some of these include:

- Electric scooters
- Walkers (wheeled tripods)
- Canes
- Braces
- Orthotics (inserts in shoes)

Helpful devices and modifications at home

To make it easier and safer for you to move around, you may find it useful to make a few simple changes around the house:

- Move furniture that blocks areas where you walk
- Place solid pieces of furniture where they can be used as extra support

- Remove loose rugs or mats that you could trip over
- Move plugs or switches to make them easier to reach
- Keep the telephone close at hand with an emergency and/ or family telephone number pre-dialled

Doorways and staircases

Install handrails or a wheelchair ramp, if necessary.

Bathroom

- Install handlebars on the wall next to the toilet, bathtub and the shower.
- Put non-slip bath mats in bathtubs and showers.
- Use a swivel bath chair that is the same height as the bathtub to help you get in and out.
- Use a plastic chair in the shower, if it is easier.
- Buy a toilet seat raiser that fits on the toilet rim.

Bedroom

- A single bed may be better than a double bed (as the carer has easier access to your right and left side)
- Use a low bed, to make getting in and out easier
- Buy a commode-chair, if possible
- Appliances can also be hired

Kitchen

- Place everyday kitchen items (e.g. kettle, mugs, tea, coffee) on low shelves or tables, so they are easier to reach
- Use a hot plate on a table, if the stove is too high to reach
- Store dishes in vertical plate holders
- Buy a 'lazy Susan' (revolving shelf), so that it is easier to reach items
- Use non-slip mats or put paper towels under plates to keep them from sliding
- Buy special eating utensils, if necessary (e.g. one-handed cutlery or utensils with wide handles)
- Use a trolley to carry items to the fridge or stove
- Make sure the kitchen floor is kept dry, to avoid slipping

Interests and activities

Besides improving your morale, hobbies and activities provide mental and physical stimulation, which are both important in the rehabilitation process. Some of your favourite activities are not always possible anymore, but new ones can be learnt and enjoyed.

Activity suggestions:

- Reading: bookholders, large print books and books on tape or DVD are useful if you're having trouble holding books
- Cards: card-holders can help if you're having problems handling small objects
- Gardening: long-handled tools should make this easier
- Pets: are great companions and give you a good reason to go for a walk
- Games: bowling, chess, other board games or puzzles can be played with one hand
- Daily light exercise: walking or swimming are good forms of exercise. For safety purposes, make sure you have someone to assist you when you first attempt swimming. If the weather is bad, you may want to walk in a nearby mall
- Chair fitness classes: find out about disability clubs in your area, as they may offer various fitness classes, including Yoga, Pilates or Tai Chi for people in wheelchairs

Information for carers

Caring for someone who has had a stroke can be very demanding. This will depend on whether the person you are caring for is able to cope by himself or herself,

or whether he or she needs a lot of help, even with minor chores. There are also many emotional and practical issues to consider.

The advice below can help:

- Remember you are not alone. Doctors, nurses, social workers, friends and support groups (where available) can all help. Ask for practical advice and support whenever you need it. It is important to have support for yourself, as well as for the person you are looking after. Talking to other carers can be very helpful
- Look after your own health. It is easy to neglect your own health when you are looking after someone else
- Get regular check-ups and talk to your doctor if you notice the first signs of anything going wrong
- Take a break. It is important to get regular breaks from caring, both for your own well-being and for the person you are looking after. It is important that you have time of your own to go to the shops, see friends and to carry on with some of your usual leisure time activities. This helps to avoid a build-up of stress
- If the person you are looking after cannot be left alone, your doctor, stroke nurse, or social worker may be able to help arrange respite care. Regular breaks from caring can do everyone the world of good



WHAT SHOULD I DO IN AN *Emergency*



Phone numbers

Public emergency ambulance services:

- 10177 (Landline)
- 112 (Cell)

Stroke is a medical emergency.

You should get the person with the suspected stroke to hospital quickly, so that he/she can receive early treatment.

Ambulance crews use the **FAST** test to identify a stroke quickly.



F: **Facial weakness:** ask the person to smile. Has one side of their face drooped?

A: **Arm weakness:** ask the person to raise both arms. Does one arm drift downwards?

S: **Speech problems:** can the person speak clearly, without slurring? Ask the person to repeat a sentence such as: “the sky is blue today”.

T: **Time to act quickly:** call emergency ambulance services immediately and record the onset of the time of the symptoms of stroke.

WHAT DO THE MEDICAL WORDS *Mean?*



Aa

Aneurysm

A balloon-like swelling of a blood vessel, which may burst suddenly, causing a hemorrhagic stroke.

Angiogram

A test giving a picture of the blood vessels that can be seen on X-ray by injecting dye into the blood stream.

Anticoagulant

This can refer to any medicine used to reduce the chance of blood clots forming.

Anti-platelet

Medicines that prevent the platelet cells from sticking together and forming a blood clot. Platelets are the cells in the bloodstream responsible for forming blood clots.

Aphasia

See dysphasia.

Apraxia

See dyspraxia.

Arteries

Blood vessels that run from the heart to the organs, such as the brain. They carry the blood that carries the oxygen.

Aspiration

Food or fluid accidentally going down the windpipe, instead of the oesophagus (the swallowing tube in the throat). This can lead to chest infection.

Atheroma/atherosclerosis

Atheroma is what happens when blood vessels become clogged up with fatty deposits over the years. This stops the blood flowing normally and can encourage the formation of blood clots that cause stroke

Atrial fibrillation/AF

An irregular heart rhythm.

Carotid endarterectomy

An operation to reduce the chance of stroke in people who have a serious narrowing in one of the arteries in the neck. These arteries supply blood to the brain and the narrowing means that the artery is more likely to be blocked by a clot, causing a stroke.

Cerebral/cerebro

Refers to the brain.

Cerebrovascular accident

Another term for stroke.

Cerebrovascular disease

Any condition affecting the blood vessels of the brain.

Cholesterol

Fatty substance needed by the body as a building block for tissues and chemical processes. Some cholesterol is present in our food, but most is made in the body from the fat we eat. Blood carries cholesterol around the body.

Cognitive impairment

Problems with thinking, planning and/or memory. Contractures Muscle tightening that leads to pain, stiffness and joints being unable to work properly.

CT scan/CAT scan

A CT scan or CAT scan is an X-ray of the brain. This special scan is able to make a computerised picture of the brain in cross-section. The test shows if there are any scars caused by blocked circulation, or if there is bleeding into the brain.

Doppler/duplex scan

Carotid dopplers are scans of the blood flow inside the blood vessels of the neck. The test is done by running an ultrasound probe over the surface of the neck.

Dysarthria

A condition where speech sounds distorted, quiet or slurred, due to weakness of the muscles used in producing speech sounds.

Dysphagia

Difficulty in swallowing.

Dysphasia (aphasia)

A condition where the stroke affects the person's ability to use and understand language. This can affect speech (eg. finding the right word), making it difficult for you to understand reading and writing, and also to understand what other people are saying.

Dyspraxia (apraxia)

Difficulty in planning and carrying out a series of actions. This can affect movement or speech. It is not caused by weakness or paralysis of the muscles or by failure to understand, but is due to a difficulty in co-ordinating movements.

ECG/electrocardiogram

A routine test that measures the rhythm and activity of the heart.

Echo/echocardiogram

This is an ultrasound scan that uses reflected sound waves to build up an image of the heart, which reveals clots or abnormalities of the heart valves.

Embolism/embolus

A clot that has broken off from a larger one somewhere else and has travelled through the blood vessels in the blood.

Hemianopia

Blindness in half of the visual field of both eyes. This means that you can see only to the right or to the left, depending on which half is affected.

Hemiparesis/hemiplegia

Weakness or partial paralysis on one side of the body.

Hypertension

High blood pressure.

Intracerebral haemorrhage/haemorrhagic stroke

Bleeding from a blood vessel within the brain.

INR

This is the test used for people on warfarin, and stands for 'International Normalised Ratio' ie. the time it takes for blood to clot, when compared to 'normal'.

Ischaemic stroke

A stroke caused by a blood clot or embolus (see above) that disrupts the blood supply to part of the brain.

MRI scan

MRI stands for Magnetic Resonance Imaging and is a type of scan that uses magnetic forces to produce more detailed images of the brain than a CT scan.

Subarachnoid haemorrhage

A type of stroke caused by bleeding from a blood vessel into the space between the brain surface and one of the covering membranes.

Thrombosis

Blockage of a blood vessel, due to a clot.

Transient Ischaemic Attack (TIA)

A TIA refers to the symptoms of stroke that resolve completely within 24 hours. It is caused by a small blood clot or embolus. It must receive urgent medical treatment, as it is an important warning of a possible, more serious stroke to follow.

Vascular

This term refers to something to do with blood vessels. The arteries carry oxygen and nutrients from the heart to the different parts of the body and the veins remove waste products.

Visual field defects

This indicates a problem with the vision that affects a part, but not all of a person's eyesight. The person may be quite unaware of a problem.



