

Better Health. With You.

All you need to know about Stroke

This information booklet is for you if:

- 1. You are diagnosed with stroke
- 2. Your family member is diagnosed with stroke
- 3. You are taking care of someone diagnosed with stroke

The information provided in this handout is to help you understand the general and specific aspects regarding your stroke.

If you or your family members have questions after reading this handout, please contact your doctor and or therapist in-charge.



What is a stroke?

Stroke happens when there is damage to the brain tissue due to:

Ischemic: Interruption to the blood flow



OR



Haemorrhagic: Bleeding from a ruptured blood vessel within the brain

A transient ischemic attack is also called as mini stroke or warning stroke. TIA is caused by a clot that temporarily stops blood flow to the brain but may not lead to brain tissue damage.

This needs to be taken seriously, as a future complete stroke is very much possible. The effects of stroke may last less than 24 hours for a transient ischemic attack (TIA) or longer (complete stroke).



But this is a warning sign that a future complete stroke may happen, if risk factors are not well taken care of. Ischemic: Interruption to the blood flow



This is the most common form of stroke and may result from:

- 1 Arthereosclerosis Fatty deposit called plaque may build up in the blood vessels. This narrows of the vessel, reducing blood supply to the brain.
 - Thrombotic Blood clot developed within the vessel in the brain over time.
- 3 Emboli Blood clot or fatty lump or air bubble travelled from other parts of the body example – legs, lung, heart or any other part of the body



Haemorrhagic: Bleeding from a ruptured blood vessel within the brain

This may result from:



Intra cerebral haemorrhage: Leaking of blood from a weak blood vessel or bursting of the weak blood vessel



Why am I at risk of developing a stroke?

There are some factors that are not under your control, puts you at risk of developing stroke, including:

- Age above 65 years old
- Male gender
- Malay race
- One of your own family members had stroke

Some of the medical conditions that increases strain on your heart and blood vessels may lead to stroke. Many of the following medical conditions can be controlled.

Medical Condition	Risk posed
High Blood Pressure	Blood pressure (BP) over 140/90 is considered high BP. High blood pressure increases your risk for stroke by 4-6 times.
Diabetes (high blood sugar)	Uncontrolled diabetes over a period can cause damage to your blood vessels and nerves. The risk of stroke is 1.5 times more in diabetics.
Heart Disease	Ischemic Heart Disease, rhythm, or heart valve problems are risk factors for stroke.
High cholesterol	Causes narrowing of blood vessels which can lead to reduced or blockage of the blood flow to your vital organs including the brain.
Sleep apnoea	Continual lack of oxygen can cause high blood pressure and detrimental effects to your cardiovascular system.

Why am I not able to control my body after a stroke?

Different parts of the brain help to control how the body moves and feels while doing different activities of our daily life.

Normal brain receives information from the environment through all the sensations from eyes, ears, skin, muscles, and joints. This information is processed to produce appropriate activity.

The most visible sign of stroke is paralysis on one side of the body. The location of the stroke determines which side of the body is affected.



How is stroke diagnosed?

Your doctor will not know for sure, what type of stroke you had until you have a CT or MRI scan. You need to have tests such as:

- CT scan, which uses X-rays and a computer to show detailed pictures of the brain and blood vessels
- MRI, which uses a strong magnetic field and radio waves to show detailed pictures of the brain and blood vessels
- Ultrasound, which uses sound waves to show pictures of the blood vessels in the neck
- Cerebral angiogram, which uses dye injected into a vein and X-rays to look at how blood flows through the brain
- ECG, which measures and records your heartbeat
- Echocardiogram, which uses sound waves (ultrasound) to show pictures of the inside of the heart









How is stroke treated?

Stroke is a medical emergency and needs to be treated in a hospital, mostly in a specialised setting called acute stroke unit. The treatment depends on what kind of stroke you are having.

- A stroke caused by blood clots may be treated with clot-dissolving medicine that goes into your drips or a procedure known as a thrombectomy that removes the clot from the artery.
- When a stroke is caused by bleeding in the brain, your doctor will try to stop the bleeding and fix the torn blood vessel causing the problem.
 - You may need surgery to repair a blood vessel, correct blood flow problems, or remove a blood clot.



Once your stroke is diagnosed via clinical assessment and brain imaging, treatment begins to help stabilize your symptoms. Then additional assessment is initiated to identify the reason for your stroke and the risk factors involved.

At the bedside, you will be evaluated daily by the Stroke Team to update you and/or your family on diagnostic results, medications, and rehabilitation needs. Rehabilitation is an essential part of your physical and cognitive recovery.







Will I be able to recover from stroke?

The physical and functional difficulties resulting from stroke varies from person to person based on the extent of damage happened to the brain tissue. The most recovery from a stroke usually comes in the first 3-4 months, but recovery can occur well into the first or second year after the acute event.

During hospitalization, your therapists may discuss your skills, abilities, and interests with you and your family. They may provide treatment that will improve specific skills, assist you in developing new leisure interests/hobbies, and provide resources to promote your self-sufficiency and independence.



Your Rehab Journey

Rehabilitation starts in the hospital as soon as possible after the stroke. Depending on the severity of the stroke, rehabilitation may continue after you leave the hospital. Your rehabilitation team may include the following people.



- Neurologists are doctors skilled in finding the cause of and treating diseases of the nerves and brain.
- Nurses coordinate day-to-day care and help to make rehabilitation a part of the stroke survivor's routine.



• Physical therapy (PT) helps restore physical acts and skills like getting in and out of bed, moving from a bed to a chair, balance, and walking.







- Occupational therapy (OT) helps relearn the skills you need for everyday living such as eating, going to the bathroom, dressing, and taking care of yourself
- Speech and language pathology (SLP) can help stroke survivors who have trouble understanding or speaking written or spoken words (aphasia). A stroke survivor with aphasia can think as well as before the stroke but is not able to get the right words out. Stroke survivors with aphasia can also have difficulty processing words coming in. Speech therapists can teach ways for coping with this challenge.

 Social workers and case managers provide counselling and support services for stroke survivors and their families. They help caregivers find the best possible solutions to rehabilitation and recovery needs.

When will I be discharged from hospital?

Prior to your discharge from the hospital, your rehab team will discuss your discharge therapy needs. Depending on your status, home environment, social support and available transportation; a decision will be made whether you will have in-patient rehabilitation or refer to community hospital for further rehabilitation or home therapy, be referred to outpatient therapy or go to a skilled nursing facility.

How can I prevent from future stroke?

Up to 80% of second ischemic strokes may be preventable. Some of the risks for a stroke cannot be prevented, such as age, race, and family history.



Other risks, such as smoking, high blood pressure, high cholesterol, diabetes, and heart disease can be controlled with the help of your medical team and self-management.

Lifestyle changes can also help prevent a stroke:

- Eat a healthy diet that is low in sodium (salt).
- Try to keep a healthy weight. If you are overweight, lose weight. Speak to your medical team for further advice.
- Stay fit with the right kind of exercise for you. Please consult your medical team for further advice.
- Quit smoking and alcohol. Please consult your medical team if you need advice
- Learn ways to manage stress. Ask for help at home and work when the load is too great to handle. Find ways to relax, for example take up a hobby, listen to music, watch movies, or take walks. Try deep breathing exercises when you feel stressed.

After discharge from hospital, what happens?

You may be nervous about being on your own at home after a stroke. Common concerns are:

- A stroke may happen again
- Adjusting to new disabilities
- Ability to go home rather than a nursing home or rehabilitation facility
- Your caregiver may not be prepared to care for you



Steps to help make the move home easier and safer

- Ask your doctor about ordering a home therapy visit with physical and occupational therapists.
- Make your home wheelchair or walker friendly by moving furniture and adjusting doors.
- Change lighting in your home to decrease glare and help you see better.
- Keep your phones within easy reach to stay safe and connected.
- Write down emergency numbers in large print on index cards and keep them handy.
- Arrange for people to check in with you regularly.
- Accept help with household chores.
- Allow family members and friends to drive you places.
- Keep active with your family and friends.



Resources

Following resources may be helpful for you to seek help with regards to any of your concerns. Talking about your concerns may be helpful.

- 1. Talk to your medical team about your concerns
- 2. Visit Singapore National Stroke Association http://snsa.org.sg
- 3. Visit Stroke Support Station (S3) https://www.s3.org.sg/strokesupport

Contributed by Physiotherapy, Rehabilitation, Allied Health Services

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