

# STROKE



ACT URGENTLY. SAVE LIVES.

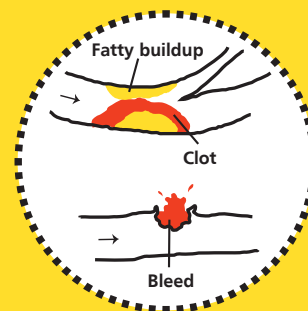
## 1. What is a stroke?

The brain, like all parts of the body, needs oxygen which it gets from blood. When blood flow to the brain is cut off or reduced, oxygen supply is depleted and brain cells in the immediate affected area begin to die. The symptoms that follow are referred to as a stroke.

Strokes are divided into two groups depending upon the cause. There can either be a blockage called an *ischaemic* stroke or a bleed called a *haemorrhagic* stroke. It is important to identify the type of stroke since treatment varies according to the type.

The majority of strokes about three in five are blockages. Blockage stroke or ischaemic stroke is commonly caused by a buildup of fatty materials inside the blood vessels which prevents blood from flowing freely. This fatty deposit may lead to a clot which blocks the blood supply just in the case of a heart attack. This is why a stroke can be termed as a *brain attack*. A clot can form in the brain or it can travel from other parts of the body most commonly from the blood vessels in the neck. Clots can also travel from the heart which may occur when one has an irregular heart beat called as atrial fibrillation.

A bleeding stroke happens when a blood vessel bursts suddenly causing blood to leak in or around the brain. In this kind of stroke, blood in the brain can lead to a swelling of the brain which requires surgery in some cases. Bleeding stroke is most commonly seen among people with high blood pressure (hypertension).



## 2. What is a mini-stroke?

Sometimes stroke symptoms completely disappear in less than 24 hours. This is called a mini-stroke or a transient ischaemic attack (TIA). Often, symptoms last for a short time and then disappear. When a TIA occurs, the artery either becomes unblocked after a short time or a new path opens up and blood flow becomes normal. Just as in a full blown stroke, if a TIA is suspected, one must go to hospital immediately. This is because the TIA is a warning sign that one is at high risk of having a full stroke.

## 3. Who is at risk of having a stroke?

Anyone can have a stroke but people who have one or more of the following are at greater risk:

- High blood pressure
- High cholesterol
- Heart disease

- ⦿ Diabetes or high level of sugar in blood
- ⦿ Obesity (weighing more than they should for their height)
- ⦿ Smoking
- ⦿ Heavy alcohol consumption
- ⦿ Physical inactivity
- ⦿ Prior stroke

In addition, the risk of stroke increases with age and males are at higher risk compared to females.

#### 4. How can the risk of stroke be reduced?

The best treatment for stroke is prevention – 80% of strokes are preventable.

People can do much to reduce their risk of stroke, even though some risk factors like age, being male or female — are obviously not controllable. Everyone should check their blood pressure, blood sugar and cholesterol levels and treat these conditions as advised by a doctor. In addition, some doctors will advise taking medicines to reduce blood clotting. People who smoke should quit; people who drink heavily should reduce alcohol intake; people who do not exercise regularly should start. A person who has had a previous stroke, is at risk of having another one. One should eat healthy, be more active, and follow the doctor’s advice for medicines and other lifestyle changes including giving up the use of tobacco and alcohol products.

#### 5. Are there early warning signs of stroke?

Because the brain controls the whole body, the symptoms of a stroke can be wide ranging depending upon which part of the brain is affected. Stroke has few classic early warning signs. The word “stroke” comes from the idea of receiving a strike or a blow. Most of these signs appear suddenly. A person may be suffering from a stroke if one or more of the following signs are present:

- ⦿ Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- ⦿ Sudden confusion, trouble in speaking or understanding
- ⦿ Sudden trouble in seeing in one or both eyes
- ⦿ Sudden trouble walking, dizziness or loss of balance
- ⦿ Sudden severe headache which may be accompanied by altered consciousness



## 6. Why is there a need to act fast if someone has a sign of stroke?

Stroke is a medical emergency. Every minute counts. The longer the normal blood flow to the brain is reduced, the greater the chance for damage. Damage to the brain can be reduced or reversed if proper treatment (either medicines or surgery) is started early. This is why it is important to act quickly if you suspect a stroke. Diagnostic tests should be done as soon as possible and if medicines to dissolve or treat clots are needed and available they should be started within three hours of experiencing the stroke for the greatest chance of recovery.

## 7. How does stroke affect the person?

The human brain has different areas that control how the body moves and feels. When a stroke damages a certain part of the brain, that part may not work as well as it did before. Depending on the part of the brain that is affected, a person might have problems with: seeing, sleeping, moving parts of the body, controlling the bladder or bowels, fatigue, seizures, memory and depression.

## 8. What disabilities can result from a stroke?

Even though stroke is generally treatable, the effects of stroke can be disabling. These range from mild to severe and can include paralysis, problems with thinking, and problems with speaking. While 50% to 70% of stroke survivors regain some functional independence, but 15% to 30 % are seriously disabled. But given time, the brain can slowly recover and regain previously lost ability. This is why stroke rehabilitation is very important. Rehabilitation, depending on the disability, may require the support of many different specialized health professionals such as physiotherapists, speech therapists etc.

Sources: American Stroke Association, National Stroke Association, Centers for Disease Control and Prevention, World Stroke Organization, World Health Organization.

### Remember the three key questions

One of the key reasons why people delay seeking treatment is due to a delay in recognizing that the person has a stroke. There are *three key questions and signs* related to the face, arm and speech that can help to spot if the person is having a stroke:

⦿ Is the face drooping on one side?



⦿ Is there weakness in one arm?



⦿ Is the speech slurred?



If the answer is yes, to one or all of the above, the person may be having a stroke.

If one experiences the above symptoms, alerting a bystander or a family member or a friend or immediately contacting the nearest health facility is important.

## The story of a stroke survivor

“It’s a stroke. There is a bleed in the right side of the brain” – these words from the doctor, three years ago, still echo in the minds of my family. Things are okay now, but life has never been the same again.

It was the evening of 23 September 2013, I\* had returned from work and was feeling uncomfortable. Suddenly, my restlessness turned to numbness. I limped heavily on my left leg as I moved. I tried using my left hand for support but realized I could not move my arm. I called out to my wife; she came quickly but struggled to understand what I was saying. My speech was slurred. With patience and persistence, I was finally able to convey to my wife that something was terribly wrong. What could this possibly be? My mind raced to think that perhaps it was my raised blood pressure that I was being treated for the last 10 years that could be the cause. Meanwhile,

worsened. My wife contacted our family doctor immediately and explained the symptoms. I was advised to be taken to the hospital at once. A private ambulance came to pick me up. After that I have only faint memories of what happened. The hospital team decided that a CT scan was needed and I was sent to an imaging centre which was 10 kilometers away. In the peak traffic hours of New Delhi, it took more than two hours to reach the imaging centre, get the scan done and return to the hospital. My family’s fears were confirmed with the report. I had suffered a stroke and there was a bleed.

**“I understand that there are millions of people like me living with stroke. but from my experience. I can truly endorse that the best treatment for stroke is indeed prevention”**

What saddens me is that our hospitals are not equipped to respond effectively to stroke cases like mine. Not only was the first response to stroke inadequate, there are no guidelines, no well-defined protocol to manage stroke patients. Further, in my two months of hospital stay, I didn’t feel fully satisfied with the services. The physiotherapy sessions were not well-coordinated, nor were the other services tailored to my overall health condition and my ability to maintain steady recovery.

I feel that stroke response needs to be considerably improved to save lives. Timely and appropriate treatment must be given to survivors for a more promising future. On the advocacy front, we should all help in spreading greater awareness about signs of stroke and the need to act urgently. With sharing of such information, we could just be saving someone’s life.

While I have a great support system at home and at work, I realize that I need to take care of myself too. I go for walks regularly and eat healthy at most times; I have my cheat days, but I try to make up on other days. As a 53-year-old, I have my bad days, like all stroke survivors, but things seem to be normalizing with these lifestyle changes and regular treatment. I understand that there are millions of people like me living with stroke, but from my experience, I can truly endorse that the best treatment for stroke is indeed prevention.”

New Delhi, India, October 2016

*\*Name and identification withheld*



**World Health  
Organization**

Regional Office for South-East Asia