

## Stroke - the after effects

Stroke is the interruption of blood to the brain. The most common type of stroke is ischaemic, caused by a blood clot blocking an artery or vessel. The brain cells in the immediate area are permanently damaged and those in the surrounding areas are affected by the reduced blood flow.

Once brain cells are permanently damaged, their functions stop with them. The functions that are lost depend on which areas of the brain were affected by the stroke and how severely. A person who suffers from a small stroke may recover with only minor disabilities, while a major stroke can permanently disable or even cause death. Many survivors also have emotional changes, with a tendency to laugh or cry for no apparent reason and then to stop just as suddenly.

### **A window of opportunity**

Brain cells (neurons) lack the ability to regenerate. When brain cells in the immediate area are starved of oxygen and nutrients by a stroke, they quickly die. Brain cells in the surrounding areas are then at dire risk. If medical treatment is prompt, there is every chance that these compromised brain cells can be saved, minimising the damage.

If a stroke is suspected, it is very important to seek medical help immediately. It can mean the difference between life and death, or minor versus major disabilities.

### **Different parts of the brain**

The brain can be considered as a four-part organ, which includes the right and left hemispheres, the cerebellum and the brain stem. A stroke has different effects, depending on which part of the brain is targeted during the attack.

#### **The right hemisphere**

Some of the major functions of the right hemisphere include perception and control of the left side of the body. A stroke which affects the right hemisphere can cause many changes, including:

- The inability to judge distances, which can lead to falls or loss of hand-to-eye coordination
- Short-term memory loss
- Neglecting or ignoring anything situated to the left of the body
- Impulsive behaviour
- Paralysis of the left side of the body ('left hemiplegia').

#### **The left hemisphere**

Some of the major functions of the left hemisphere include speech and control of the right side of the body. A stroke affecting the left hemisphere can cause many changes, including:

- Paralysis of the right side of the body ('right hemiplegia')
- Various problems with speech and communication
- Short-term memory loss.

#### **The cerebellum**

Some of the major functions of the cerebellum include coordination and balance. A stroke affecting the cerebellum can cause many changes, including:

- Dizziness
- Nausea and vomiting
- Loss of coordination
- A tendency to unbalance and fall
- Slurred speech.

#### **The brain stem**

Some of the major functions of the brain stem include breathing, heart rate and blood pressure. A stroke that affects the brain stem can cause many changes, including:

- Complete paralysis
- Coma
- Double vision
- Swallowing difficulties
- Death.

### **Living with the effects of stroke**

In some cases, the effects of a small stroke can be overcome and the person can live an almost completely normal life. In other cases, the disabilities are severe and permanent. Support and understanding from family and friends, plus intensive rehabilitation from health care professionals, can always improve a stroke survivor's quality of life.

Some of the health care professionals who can assist include:

- **Speech therapists** – to maintain or improve speech and communication and assess swallowing difficulties.
- **Occupational therapists** – to teach coping strategies and new skills, and help adapt the family home to better cater for the needs of the stroke survivor.
- **Physical therapists** – to maintain or improve the movement and functioning of the body.

### **Where to get help**

- Your doctor
- Your specialist
- Speech therapist
- Occupational therapist
- Physical therapist
- In an emergency, always dial triple zero (000) to call an ambulance

### **Things to remember**

- A stroke has different effects, depending on which part of the brain is targeted during the attack.
- If a stroke is suspected, it is important to seek medical help immediately.
- Health care professionals who can help improve a stroke survivor's quality of life include speech, occupational and physical therapists.

**This page has been produced in consultation with, and approved by:**

BrainLink

**Copyright** © 1999/2009 State of Victoria. Reproduced from the Better Health Channel ([www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.

- This Better Health Channel fact sheet has passed through a rigorous approval process. For the latest updates and more information visit [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au).