

A. What is STROKE ?

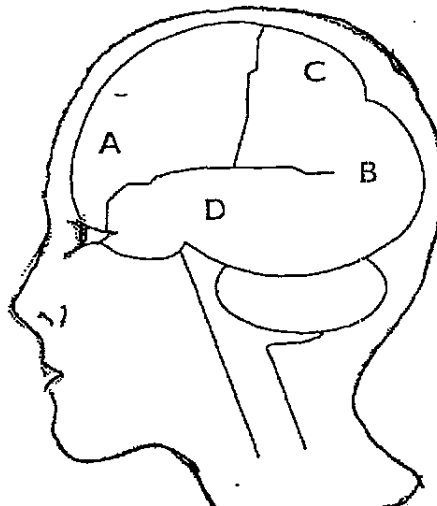
A Stroke occurs when a person experiences damage to an area of tissue in the brain as a result of a blood clot in the brain (Cerebral thrombosis or Cerebral embolism), or from a ruptured artery causing extreme bleeding (Cerebral haemorrhage) in the brain. The part of the brain where the clotting, or haemorrhage occurred affects certain areas of physical functioning. – Refer to the diagram which illustrates the major functions of the various parts or lobes of the brain.

A. FRONTAL LOBE

Planning, Expression,
Activity Level, Voluntary
Movement, emotions.
Thalamus

D. TEMPORAL LOBE

Memory, New Learning,
Hearing, Comprehension



C. PARIETAL LOBE

Association of senses,
body position, recognition,
reading.

B. OCCIPITAL LOBE

Vision – colour, shape,
distance

B. RISK FACTORS.

Although a person of any age or gender may experience a Stroke with little or no warning, there are a number of risk factors associated with having a STROKE:

- Increase in age and family history of cerebrovascular disease
- Previous experience of minor Stroke (Transient Ischaemic Attack)
- High blood pressure (hypertension) and irregular heart beat (cardiac arrhythmia)
- Diabetes, obesity, high fat and salt diet and stress.

C. WARNING SIGNS.

Some people may experience warning symptoms (see below) or minor Strokes (Transient Ischaemic Attacks) before having a Stroke. Warning signs often occur suddenly and people soon recover. To avoid the onset of a major Stroke, warning signs must be taken seriously and followed up.

Warning signs may include:

- Partial or complete blindness in one eye.
- Slurred or hesitant speech.
- Feelings of weakness or numbness in parts of the body.
- Dizziness, pins and needles sensation.
- Loss of balance.

D. TYPES OF PHYSICAL EFFECTS.

Stroke may produce an impairment in speech, swallowing, movement and vision. The functional effects of a Stroke depend on which area of the brain has been injured, and thus the effects of Stroke on different individuals can vary greatly.

Physical effects include:

Motor Coordination:

- Damage occurring in one side of the brain will result in weakness or paralysis on the opposite side of the person's body. (**Hemiplegia**)
- Loss of sensation such as pain, temperature and touch, body position and a lack of awareness of one side of the body. (**Hemineglect**)
- A weakness of tongue, cheek or swallowing muscles may make food intake difficult. Also, an increase or decrease in **muscle tension** may make limb movement difficult.

- Difficulty in **bladder** and **bowel** control and in maintaining **balance**.
- Damage to the **Thalamus** (refer to diagram) may cause the person to feel severe pain in a part or the whole of the paralysed side. The person suffering with this pain can obtain some relief through sleep.
- Some people may also develop **post Stroke epileptic episodes**. **Seizures** or **fits** may occur as a result of irregular electrical activity caused by irritation of scar tissue in the brain after having Stroke. **Epilepsy** (having several fits) may occur after any type of Stroke, whether caused by blockage or bleeding of a blood vessel.

Communication:

- Difficulty in co-ordinating the muscles and structures involved in speech production (**Dysarthria**). Weakness of facial muscles may decrease the clarity of speech and impact on communication with others.
- Partial loss of ability to speak words in correct sequence (**expressive Dysphasia**), understand speech (**receptive Dysphasia**) or read (**Alexia**).
- Difficulty choosing the correct word (**Anomia**) or controlling the outward expression of emotional feeling ie. crying for no particular reason.

Vision:

- Difficulty in **visual perception**. Visual perceptual difficulty is not the same as poor eye sight. The eyes may be unaffected but the messages to the brain are being relayed improperly.
- Loss of the ability to recognize what is seen (**Visual object agnosia**) or inability to recognize familiar faces (**Prosopagnosia**) and colours.