



Exercise Physiology • Hydrotherapy • Injury Rehabilitation

Pathophysiology

Strokes occur due to an interruption or reduction in the blood supply to part of the brain depriving the brain tissue of oxygen and nutrients. Within minutes, brain cells begin to die.

Ischemic strokes

Approximately 80% of strokes are ischaemic. Ischaemic strokes occur when the arteries to your brain become narrowed or blocked, causing severe ischaemia. Ischaemic strokes can be broken down in to two categories, thrombotic stroke and embolic stroke.

Haemorrhagic stroke

Haemorrhagic strokes occur when a blood vessel in your brain leaks or ruptures. Brain haemorrhages can result from many conditions that affect your blood vessels including uncontrolled hypertension, over prescription of anticoagulants or aneurysms.

A Transient Ischemic Attack (TIA)

A transient ischemic attack (TIA) is a temporary period of symptoms similar to those you would experience in a stroke. A temporary decrease in blood supply to part of your brain causes TIAs, which may last as little as five minutes. Similar to an ischemic stroke, a TIA occurs when a clot or debris blocks blood flow to part of your nervous system. There is no permanent tissue damage and no ongoing symptoms with a TIA.

BENEFITS OF EXERCISE

The potential for exercise adaptations to improve function, strength and cardiovascular health post stroke has been underestimated. Stroke survivors suffer decreased cardiovascular endurance, balance, strength, ability to ambulate, ability to negotiate stairs, functional mobility and motor control. The goal of exercise therapy is to:

- Improve cardiovascular endurance
- Improve balance
- Assist in ability to ambulate and improve gait cycle
- Assist in ability to negotiate stairs
- Improve functional mobility
- Improve motor control
- Increase independence
- Reduce disability and therefore improve quality of life

References

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GOT A QUESTION?
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