



PHYSIOTHERAPY WORKS THE EVIDENCE

STROKE

A stroke is a major cause of serious adult disability in New Zealand¹.

A stroke is a brain attack – a sudden interruption of blood flow to part of the brain causing it to stop working and eventually damaging brain cells.

Depending on the area of brain affected this can cause problems with movement, speech and cognitive functions.

A stroke is also known as a cerebrovascular accident (CVA).

Who is at risk?

The risk of having a stroke increases with age and there are a number of other risk factors – many of which can be changed or managed.

The most important messages are: stop smoking, reduce salt intake, increase physical activity and maintain your weight within healthy parameters.

As people age, regular checks of your blood pressure and cholesterol levels are also important.¹

How physiotherapy can help

If you have experienced a stroke then a physio will be an important part of your health team working with you to assist with your recovery (or rehabilitation).

Most patients with a stroke are initially admitted to hospital and your physiotherapy will start within the first day or two.

Depending on your goals and problems a rehabilitation programme will be developed to start restoring your ability to move and complete every day activities.

Often your rehabilitation will continue in the community when you are discharged from hospital.

A physio may visit you at home or organise for you to go to another facility to participate in individual and group based activities.

Further blocks of physiotherapy in the future can help you maintain and improve your mobility and function - stroke recovery can continue throughout your life.

Evidence

Evidence supports physiotherapy intervention throughout the recovery journey.

There is strong evidence for improved outcomes if the physiotherapist sees you soon after your admission to hospital² followed by an intensive (at least an hour per day³) period of treatment in the hospital or rehabilitation centre using a range of treatment techniques depending on your problems⁴ e.g. strengthening exercises, constraint –induced therapy⁵, treadmill training⁶.

The evidence for ongoing community based rehabilitation continues to grow.^{7,8,9,10}

Cost – size of the problem

- 9000 people each year suffer a stroke.¹
- 2500 people in New Zealand die each year following a stroke.¹
- There are estimated to be 60,000 stroke survivors.¹
- The cost of strokes is estimated to increase to \$700 million by 2015.¹
- Stroke is the major cause of serious adult disability in New Zealand.¹

A case study

Clyde suffered a devastating stroke three years ago.

His recollection of his early rehab in hospital are fuzzy due to the severe tiredness he was experiencing but he does remember his early physio sessions and the breakthrough of being able to sit up in bed.

“There is strong evidence for improved outcomes if the physiotherapist sees you soon after your admission to hospital followed by an intensive period of treatment...”

When he returned home he was still very dependent requiring a hoist for transfers and a wheel chair for mobility.

Intensive physiotherapy continued and although he uses an electric wheelchair he is now able to walk short distances with a stick and the help of a family member, he enjoyed a swim in the sea over the summer and works in the raised garden bed the family built for him.

He had a competition with his grandson to see who could walk first but his grandson was an early achiever!

Conclusion

Physiotherapy helps you live again after suffering a stroke so you can continue to participate in the activities you enjoy.

It is never too late to see a physio to discuss your problems and what you want to achieve.

References

¹ Stroke Foundation of New Zealand www.stroke.org.nz accessed 24.02.14

² Bernhardt J, Thuy MNT, Collier JM, Legg LA (2009) Very early versus delayed mobilisation after stroke. Cochrane Database of Systematic Reviews.

³ Stroke Foundation of New Zealand and New Zealand Guidelines Group (2010) Clinical Guidelines for Stroke Management. Wellington: Stroke Foundation of New Zealand

⁴ Langhorne P, Coupar F, Pollock A (2009) Motor recovery after stroke: a systematic review *Lancet Neurol.* 8:741-754

⁵ Peurala SH, Kantanen MP, Sjogren T, Paltamaa J, Karhula M, Heinonen A (2012) Effectiveness of constraint-induced movement therapy on activity and participation after stroke: a systematic review and meta-analysis of randomized controlled trials. *Clinical Rehabilitation* 26: 209-223.

⁶ Mehrloz J, Pohl M, Elsner N (2014) Treadmill training and body weight support for walking after stroke. *Cochrane Database of Systematic Reviews*

⁷ Dean C (2012) Group task-specific circuit training for patients discharged home after stroke may be as effective as individualised physiotherapy in improving mobility. *Journal of Physiotherapy* 58.

⁸ Duncan PW, Sullivan KJ, Behrman AL, Azen SP, Wu SW, Nadeau SE, Dobkin BH, Rose DK, Tilson JK, Cen S, Hayden SK (2011) Body-Weight-Supported Treadmill Rehabilitation after Stroke. *N Engl J Med* 364: 2026-2036.

⁹ Saunders DH, Sanderson M, Brazzelli M, Greig CA, Mead GE (2013) Physical fitness training for stroke patients. *Cochrane Database of Systematic Reviews.*

¹⁰ van de Port IGL, Wevers LEG, Lindeman E, Kwakkel G (2012) Effects of circuit training as alternative to usual physiotherapy after stroke: a randomised controlled trial. *Bmj* 344.

For further information or to find a physio visit physiotherapy.org.nz