Physiotherapy

The aim of physiotherapy is to assess and treat problems to do with movement and balance.

This includes:

- explaining to the person and family what is involved in physical rehabilitation
- discussing with the person and family what they would like physiotherapy to achieve, so the programme can take into account their goals
- preventing physical problems which may occur later because of immobility, too-tight muscles or the overuse of the good side
- designing a programme of exercise to help the particular physical difficulties resulting from the person's stroke, and giving ongoing instruction and help with exercises
- deciding whether aids, eg, a walking frame, will be helpful and arranging for these to be provided
- re-evaluating the exercises over time in the light of progress and needs
- advising caregivers how to physically help the person, eg, how to lift them safely or get them comfortable when lying or sitting.

"Why can't they show me the exercises to hurry up my recovery?"

In the early stages physiotherapy may concentrate on basic things such as positioning the person in bed, sitting up from a lying position, guiding the movement of a limb, practising standing. The person or family/whanau may

feel nothing much is being achieved, and be impatient for the 'real' exercises to begin, but the physiotherapist has the training and experience to know how much preparation is required and when to change or step up the therapy. Sitting out in a chair, maintaining balance is an important part of therapy early on.

A range of tests enable the physiotherapist to accurately assess the person's disabilities and put in place specific measures to help overcome these.

Once the physiotherapy is under way, the person will be expected to practise on their own what they have been taught. Here the family can help a great deal by being thoroughly familiar with the exercises and techniques, and reminding and encouraging the person to keep up regular, correct practice.

Occupational therapy

The aim of occupational therapy (OT) is to work with the person with stroke and their family/whanau and carers to enable participation in activities of daily living.

This includes a focus on optimising both safety and independence in:

- self-care tasks, eg, showering, dressing, toileting, eating and drinking
- productivity activities, eg, cooking, looking after children, work
- leisure and interests, eg, playing sport or a musical instrument, using a computer.

An OT considers a person's physical abilities as well as all the other skills someone needs to complete daily activities. These include cognitive skills (thinking abilities, including memory, concentration, decision making, planning and organisation) and perception (the way the brain interprets the environment and experiences).

OT may involve working directly to address recovery of function, eg, practising skills or tasks, or adapting the task or the environment, eg, providing adaptive equipment.

OT covers a very broad range of life and abilities. The OT will want to discuss what the person's usual roles and routines were before the stroke to identify what areas therapy should address.

An OT works closely with the rehabilitation team and family/whanau in planning for discharge from hospital. This includes assessment of the home environment and making arrangements for any equipment or modifications to the home that may be required.

The OT will explain how the things that have been worked on in hospital can be carried on after discharge. This includes making sure the daily routines give the person maximum opportunity to be independent.

Speech-language therapy

The aim of speech-language therapy is to manage communication difficulties and/or problems with swallowing.

This includes:

- assessment of altered communication to determine whether it is a language difficulty or confusion
- finding out the type and extent of any communication problem
- advising family/whanau how to communicate in the best possible way for that person
- preparing and carrying out a programme of management or therapy to encourage the return of communication
- recommending the use of alternative methods of communication where appropriate
- assisting with reading/writing
- assisting, if necessary, in establishing legal competency, eg, if the person wants to make a will
- assessing and advising on the management of a swallowing disorder (**see also page 33**).

Problems with communication are complex: they can be caused by the muscles that control speech not working properly or the parts of the brain that organise language not working properly. The speech-language therapist makes a detailed assessment of the type of disorder and teaches the person and family the most effective ways to communicate, given the disabilities.

Alternative therapies

As well as the types of therapy provided by the rehabilitation team, some people may wish to use other therapies such as:

- acupuncture
- homoeopathy
- massage
- conductive education
- aromatherapy
- use of tohunga and other healers
- Feldenkrais therapy
- osteopathy
- naturopathy
- aquatherapy
- hypnotherapy
- relaxation techniques.

It is recommended that you choose a qualified practitioner with experience in dealing with people with stroke, and always discuss the alternative therapy with your doctor. Some of these alternative therapies have very limited evidence of benefit after a stroke and some can be harmful.

Case history 1

A 66-year-old man collapsed in his garden and was taken to hospital semi-comatose. He remembers little about the following week, and to his family he seemed sleepy and a little confused. He was unable to hold a conversation, and had difficulty in eating or drinking. For much of that time he had fluids given to him into a vein via a 'drip'.

At the time of admission he had a number of tests including a CT brain scan which showed quite a large stroke. The damage was in the right side of his brain and involved the motor area and parts of adjacent brain tissue. When he recovered consciousness he found that he was unable to move his left arm at all, and his left leg was very weak. He was also relatively numb down the left side. He tried to sit up, but kept falling to the left side and hitting the wall. When helped out of bed he could not stand but was able to sit in a chair.

For the first few weeks he failed to respond to people talking to him from his left side – he could hear them but was unable to find where they were, and related to others only when they talked to him from his right side. He ate only the food on one half of his plate; when the plate was turned around 180° so he could find the rest of the food he protested that he did not want a second helping.

During the first few weeks he had intensive physiotherapy, as well as occupational therapy which was aimed at increasing the strength in his limbs and orientating him to the left side of his body and environment. After a few weeks he was able to walk independently although power to the left arm never fully recovered. Because of his inattention to the left side he would get lost walking around the hospital because he would always turn right at an intersection.

When he returned home he had continuing problems with dressing because he had difficulty in understanding the shape and relationship of the clothes to his body, and he would get into the bath with items of clothing still on his left side, for example a sock. He was now a passenger in his car, and he always

failed to close the passenger door, which was a source of anguish to his wife – should she remind him yet again? He would bump into doorways on the left, and sometimes knock things off the table. He continually lost things that he had placed to the left side of a workbench or table, particularly when it was cluttered with other objects.

All of the stroke-related problems improved gradually over several years. However, even 10 years later his left arm is moderately weak, and he still has some problems with dressing and with losing things that he has put down on his left side. He now drives his car again, having been assessed by a driving instructor qualified to test disabled drivers, and has driven safely for several years. He is a keen and capable gardener, an enthusiastic member of the local stroke club where he is a valuable contributor, and he has made several trips overseas with his wife.

Case history 2

A 56-year-old woman developed a severe headache and became unconscious within about 30 minutes. She was rushed to hospital where a CT brain scan showed that she had a cerebral haemorrhage involving the left side of her brain. Because she was unconscious for several days, the nurses took particular care to make sure that she was turned often to avoid pressure sores. Because of a distended bladder (urinary retention), a catheter was inserted into her bladder. She was given intravenous fluids.

She gradually woke up over a few days and at that time it was noted that she could not speak at all. When she tried to speak she could only make sounds that were unrecognisable. However, she appeared to understand what was being said to her and this was taken to be a good sign that she might have recovery in her speech later on. Her swallowing was assessed by a speech-language therapist and it was found that thin drinks were likely to go into her lungs. This was confirmed the same day with a videofluoroscopy, an x-ray taken whilst she was swallowing a small amount of food. She was therefore

placed on a diet consisting of thickened fluids and puréed foods to minimise the chance of something going down the wrong way.

Over the next few weeks she worked with the physiotherapist, occupational therapist and speech-language therapist and gradually began to improve. She started to use some spontaneous social speech, but found it difficult to find the right words for a conversation, even though later she said that she knew what she wanted to say. Over several months her speech improved to the point where she was able to hold a conversation quite well, although at times she still had difficulty in finding the right words, particularly when she was tired.

Balance and walking were always good so the physiotherapist concentrated on helping her improve the strength in her right arm. She was right handed, lived alone, and needed to stay in hospital for 6 weeks before she was ready to return home. By this time the occupational therapist had taught her to dress herself, and to do all the simple activities that would be required to manage safely at home on her own again, such as toileting, cooking, washing.

Before discharge from the hospital the occupational therapist took her home for a few hours to see where she might have difficulty in her own environment, and arranged to have rails put up in the bathroom, and a rail on her outside steps. Some special aids were provided in the kitchen. Once home, her family arranged to do her shopping until she was strong enough to do this herself, and a home help came in for 2 hours a week to help with housework and laundry.

She had the community stroke rehab team see her in her own home to continue working on her goals. The physiotherapist, occupational therapist and speech-language therapist gave her therapy, and 'homework' to practice in between sessions. The focus of this rehabilitation at home is to integrate her back into her usual tasks or roles and get her moving around in her own community again.