

Be Proactive not Reactive

Protect Stroke Patients' Hands

“Over 70,000 people are living with stroke and its consequences, and each year there will be approximately 15,000 new diagnoses of stroke.” NHSQIS (2004)

After discharge- What can happen:

A few months after a stroke the tone in the muscles of the hand can increase.

If the muscles are not maintained in their lengthened position then they will shorten giving flexion contractures.



Problems associated with a contracted hand:

- Pain
- Hygiene: it is difficult to open the hand to wash the palm and cut the finger nails
- Dressing: if the wrist is contracted it can be difficult to put the hand through a shirt sleeve

Treating contractures:

Contractures are very difficult to treat and when progress is made it is often very slow with an uncertain outcome. It is better to prevent contractures in the wrist and hand than to have to treat them once they occur. “The application of an orthosis is better than nothing or low intensive therapy and a resting hand orthosis applied to a flaccid hand does not cause contracture and may prevent oedema” Bowen (1988)

Custom made orthoses:

If the fingers or wrist are difficult to move out of a flexed position, then a referral to an appropriately trained Allied Health Professional should be made for assessment and possible supply of a custom made orthoses.



Ready made orthoses:

Wrist hand orthoses are intended to hold the hand in the safe hand position. Several designs of these orthoses are available but usually need to be customised by an appropriate allied health professional. Some examples of ready made orthoses are shown below:



“Orthotic treatment of the upper limb and hand should be considered during the early rehabilitation phase, with the emphasis on prevention of contracture and deformity and on enabling function”

Reference: Report of a consensus conference on the orthotic management of stroke patients, (2003), Condie (Ed.) International Society for Prosthetics and Orthotics. ISBN 87-89809-14-9

References

- Bowen M, Germanos L. Orthotic management of the flaccid upper limb in hemiplegia: two case studies. Australian Occupational Therapy Journal. 1988;35(3):130-138
- Chan WY and Chapparo CJ Effect of wrist immobilisation on upper limb function of elderly males Technology and disability 1999;11:39-49
- Condie E (ed) Report of a consensus conference on the orthotic management of stroke patients ISPO 2003
- Lannin NA, Horsley SA, Herbert R, McCluskey A, Cusick A. Splinting the hand in the functional position after brain impairment: a randomized controlled trial. Arch Phys Med Rehabil 2003; 84:297-302.
- Lannin NA Is hand splinting effective for adults following stroke? A systematic review and methodological critique of published research School of Exercise and Health Sciences, University of Western Sydney and RD Herbert School of Physiotherapy, University of Sydney, Australia
- NHS QIS Stroke Services, Care of the Patient in the Acute Setting 2004