

Physiotherapy works ✓

Hip fracture

Rehabilitation increases function, reduces falls and improves quality of life

What is a hip fracture?

The hip is a ball-and-socket joint formed between the femur (thigh bone) and the pelvis. Hip fractures commonly occur in the femur just below the ball part of the joint and, in an ageing population, present a major health and social care problem and the commonest reason for admission to an orthopaedic trauma ward.⁽¹⁾

Hip fractures in older adults often occur as a result of falling and may happen more readily than in a younger population due to bone fragility. Fragility fractures may also affect the wrist, arm and spine, but the most serious fragility fractures occur at the hip and result from low level trauma caused by mechanical forces that would not ordinarily result in a fracture.⁽²⁾ Hip fractures are the commonest cause of accident-related death in older people – 20% die within four months and 30% within a year.⁽³⁾

Physiotherapy

Physiotherapists use specialist skills to provide evidence-based high quality assessment and rehabilitation to people with hip fractures at all stages of their care.

Prior to surgery, detailed assessment provides a clear understanding of a person's mobility and independence before their hip fracture. ►►

50%
of people with hip fracture will be left with long term disability.^(1,1)



Size of the problem !

- **76,000** people per year suffer a hip fracture.⁽⁵⁾
- **76%** of fractures occur in women.⁽¹⁰⁾
- Average age for a hip fracture is **84 years** for men and **83 years** for women.⁽¹⁰⁾
- **10%** of people die within **1 month** and approximately one third within 12 months.⁽⁵⁾
- **50%** of people who have a hip fracture will be left with long term disability.^(1,1)
- Only **30%** of people fully recover.⁽¹⁾
- Hip fracture incidence is expected to rise from **70,000** per year in 2006, to **91,500** in 2015, to **101,000** in 2020 due to an ageing population.⁽¹⁾

This aids effective rehabilitation planning, which can contribute to shorter length of hospital stay.

Rehabilitation that starts soon after surgical repair of a hip fracture improves mobility,⁽⁴⁾ and it is recommended that all patients should have an assessment by a physiotherapist the day following surgery, with regular reviews and daily rehabilitation until discharge.⁽⁵⁾

Following discharge regular and frequent rehabilitation should be provided at home or in outpatient settings to improve leg strength, balance and mobility, helping

people to regain useful function and reducing the risk of complications.⁽⁵⁻⁷⁾ Recent investigation by the CSP has identified a gap in provision for people following hip fracture, with many having to wait at least two weeks to receive rehabilitation in the community.

Physiotherapists lead evidence-based falls prevention programmes including strength and balance training in community and hospital settings, which have been shown to reduce the risk of falls in older adults.⁽⁸⁾ Based on 2009/10 costs, each hip fracture prevented has been estimated to save £16,000 in health and social care costs.⁽⁹⁾

Well designed and appropriately funded physiotherapy services can provide excellent rehabilitation for people recovering from a hip fracture.

Case study

The innovative Bradford Teaching Hospitals NHS Foundation Trust Early Supported Discharge (ESD) pathway helps people regain their independence and function following hip fracture or other orthopaedic problems. The ESD team of physiotherapists, OTs and therapy assistants provide a direct link between acute and community services, delivering intensive post-discharge rehabilitation immediately patients return home. The team undertakes home visits twice a day for an average of 5 days, focusing on setting individual goals to promote independence and optimise recovery. Liaison with other agencies helps to ensure people receive the help they need to return to their normal lifestyle.

Between 2011-2013 the service saved the Trust a total of 2,698 orthopaedic bed days, equating to an estimated cost saving of more than £600,000. Readmission rates fell from 10-12% to 5-6%. Other outcomes included a reduction in falls risk, and standard measures evidenced clinical improvements of between 25-50%.

Acknowledgements

CSP would like to thank AGILE and Linda Wood (OT), Phil Wright and Lucy Kirke for the case study (original published *Frontline* 22 January 2014)

Cost

- The health and social care costs of fragility fractures are estimated at **£2 billion** per year in the UK, most of which relates to hip fracture.⁽¹²⁾
- Of total costs **45%** is for acute care, **50%** for social care and long term hospitalisation, and **5%** drugs and follow-up.⁽⁹⁾



Further information

CSP Enquiry Handling Unit

Tel: 0207 306 6666
Email: enquiries@csp.org.uk
Web: www.csp.org.uk



PHYSIOTHERAPY WORKS HIP FRACTURE IS AN EVIDENCE BASED BRIEFING FROM THE CHARTERED SOCIETY OF PHYSIOTHERAPY

References

1. National Institute for Health and Care Excellence. Hip fracture. London: National Institute for Health and Care Excellence; 2014. URL: <http://pathways.nice.org.uk/pathways/hip-fracture>
2. Dennison E, Mohamed MA, Cooper C. Epidemiology of osteoporosis. *Rheumatic diseases clinics of North America*. 2006 Nov;32(4):617-29.
3. Department of Health. Falls and fractures: effective interventions in health and social care. Leeds: Department of Health; 2009. URL: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@pg/documents/digitalasset/dh_109122.pdf
4. Handoll Helen HG, Sherrington C, Mak Jenson CS. Interventions for improving mobility after hip fracture surgery in adults. *Cochrane Database of Systematic Reviews*: John Wiley & Sons, Ltd; 2011.
5. National Institute for Health and Clinical Excellence. Hip fracture: The management of hip fracture in adults (CG124). London: National Institute for Health and Clinical Excellence; 2011. URL: <http://www.nice.org.uk/guidance/CG124>
6. Auais MA, Eilayyan O, Mayo NE. Extended exercise rehabilitation after hip fracture improves patients' physical function: a systematic review and meta-analysis. *Physical Therapy*. 2012 Nov;92(11):1437-51. URL: <http://ptjournal.apta.org/content/92/11/1437.full.pdf>
7. Latham NK, Harris BA, Bean JF, et al. Effect of a home-based exercise program on functional recovery following rehabilitation after hip fracture: a randomized clinical trial. *JAMA: the Journal of the American Medical Association*. 2014 Feb; 19;311(7):700-8.
8. Gillespie LD, Robertson MC, Gillespie WJ, et al. Interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews*. 2012(9) URL: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007146.pub3/abstract>
9. Tremblay J, Husk J, Lowe D, et al. Falling standards, broken promises: report of the national audit of falls and bone health in older people 2010. London: Royal College of Physicians; 2011. URL: <https://www.rcplondon.ac.uk/resources/falling-standards-broken-promises>
10. British Orthopaedic Association. The National Hip Fracture Database National Report 2011. London: British Orthopaedic Association; 2011. URL: http://www.nhfd.co.uk/003/hipfracturer.nsf/NHFDNationalReport2011_Final.pdf
11. Magaziner J, Hawkes W, Hebel JR, et al. Recovery from hip fracture in eight areas of function. *J Gerontol A BiolSci Med Sci*.2000 Sep;55(9):M498-507.
12. British Orthopaedic Association, British Geriatrics Society. The care of patients with fragility fracture. London: British Geriatrics Society; 2007. URL: http://www.bgs.org.uk/pdf_cms/pubs/Blue%20Book%20on%20fragility%20fracture%20care.pdf