Exercise and Fitness after Stroke
Specialist Instructor Training Course

Sara Paul

The University of Edinburgh
Queen Margaret University
Background

In the UK:

• Every year >150,000 people have a stroke
• 3rd most common cause of death in UK
• Most common cause of severe disability
• More than 250,000 people live with stroke-related disabilities
What is Stroke?

When the blood supply to part of the brain is suddenly stopped, depriving the affected part of the brain of both oxygen and glucose, both vital for normal functioning. Symptoms last >24 hours or lead to death.

NB: TIA or ‘mini-stroke’ – symptoms last <24 hours.
Types of Stroke

**Ischaemic** (80% of strokes):
Blockage or reduction in blood supply to part of the brain

**Haemorrhagic** (20% of strokes):
Bleeding in the brain

Hippocrates, the first describer of stroke
Affects of a Stroke

Dependent on the part of the brain affected:
- Motor loss (movement control, spasticity, contractures)
- Praxis (dyspraxia)
- Speech and language loss
- Difficulty swallowing
- Sensation and perception changes
- Attention, memory and thinking
- Emotion and motivation loss
- Pain and Fatigue
- Incontinence
Cost of Stroke to the Nation

£7 billion pa or 4% NHS expenditure (National Audit Office, England)

Mainly:
• Acute hospitalisation
• In-patient rehabilitation
• Nursing home care
• Loss of productivity

Also:
• Medication
• Respite care
• Recurrence
Research

People with mild to moderately severe stroke may have CV and functional capacity 40% below healthy sedentary peers


Exercise training after stroke improves physical fitness, physical function and aspects of quality of life

(Duncan 2003, Mead et al 2007, Pohl 2007)
Physical Fitness

Physical fitness essential for physical activity and function (especially walking)

Cardiorespiratory (or endurance)

Muscle strength and power
What is being done for Stroke Prevention?

- Research: exercise may be beneficial after stroke
- NICE Guidelines (2006): recommend exercise to maintain recovery and the long term effects of rehabilitation
- Royal College of Physicians (London 2008): recommendations for exercise after stroke
- Many consultants refer stroke patients for exercise
- Many people refer themselves after stroke
But...

There are no national stroke specific exercise referral schemes.

There is only one specialist exercise instructor training course first validated at REPs level 4 – this one.

In the future, exercise referral schemes will be set up for people after stroke in collaboration with stroke rehabilitation services.
The STARTER Trial

- **Mixed training, CV and Resistance**
- **3 x per week for 12 weeks**
- **Increased physical and psychological benefits**

Course Aims

Enable Specialist Exercise Instructors and other suitably qualified health professionals working with people after stroke (e.g. physiotherapists) to:

- design, adapt and tailor exercise for stroke survivors
- develop safe, effective, appropriate and enjoyable interventions (in accordance with relevant clinical guidelines, national service frameworks, national occupational & educational standards)
- implement and evaluate physical activity programmes
Exercise and Fitness After Stroke course, in a nutshell

- Accredited by QMU: 20 credits, SCQF level 8
- SkillsActive NOS, REPS level 4
- Chartered Society of Physiotherapy
- The Quality Assurance Agency for Higher Education
- Recognised by all the key UK Stroke National & Government Agencies, Stroke Association, Different Strokes.

5 days (plus assessment day) covering;
- Theory and practice of the STARTER trial, encompassing therapy led approaches. Referral to exercise, risk assessment,
- Programme design, delivery and evaluation, professional standards,
- Working with health care professionals
- Theory paper, case study and practical assessment
Evidence Based Exercise Courses for Instructors, and health professionals

- **Exercise after Stroke** (REPs level 4)
- **Postural Stability Instructor, falls & injury prevention in frailer older people** (REPs level 4)
- **Chair-based Exercise Leaders Course** (REPs level 2) working with Professional Fitness & Education
- **Otago Exercise Programme Leaders Course** (REPs level 2)
- **Someone Like Me! Senior Peer Mentors promoting physical activity with older people** *(In partnership with the British Heart Foundation National Centre for Physical Activity and health at Loughborough University and Age Concern - Ageing Well)*
- **CPD Programme**

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01838 300 310