

FAME
Fitness and Mobility
Exercise Program

Evidence for Exercise after Stroke

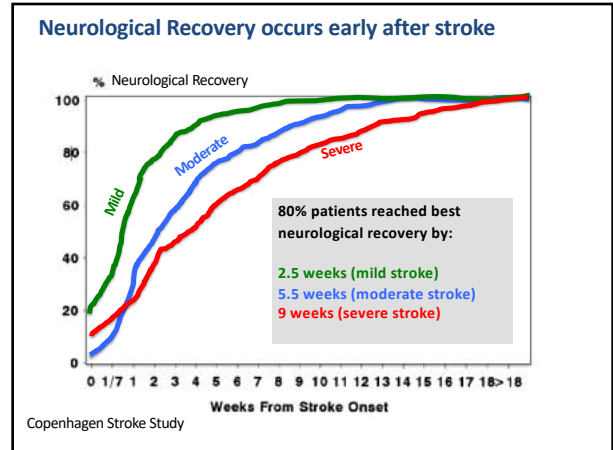
Vancouver Coastal Health
GF Strong Rehabilitation Centre

HEART & STROKE FOUNDATION

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

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Chronic Stroke (after 1 year)

- Improvements can and do occur after the first few months
- People learn new ways to do things (compensate)
- Brain can regain connections, but it takes a lot of repetitions

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How many daily steps are required to change the brain?

30 minutes treadmill running in rats after a stroke increased synaptophysin (protein involved in synaptic transmission) of subcortical regions of brain

(> 4000 steps/session)

Seo et al. 2010

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7 sites (including GF Strong Rehab Centre in Vancouver)

121 walking steps/OT session
370 walking steps/PT session

Lang et al. 2009

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Community programs for stroke

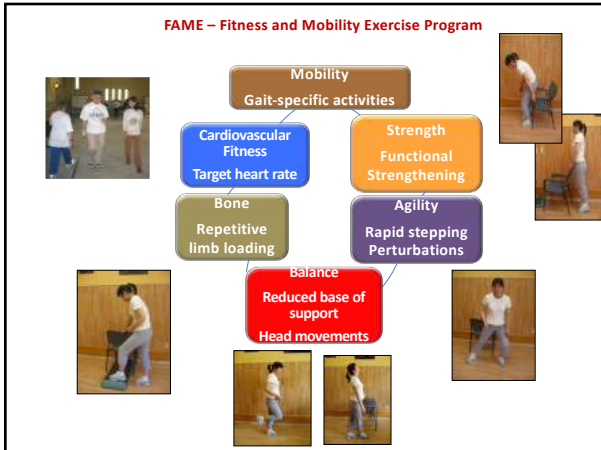
neurorehab.med.ubc.ca
fameexercise.com

FAME
Fitness & Mobility
Exercise Program

- Community-based group program
- 60 min, 2-3X/week, minimum 10 weeks
- 4:1 (participant: instructor)
- NEW MANUALS!

Eng et al. 2003; Pang et al. 2005, 2006, 2008
Marigold et al. 2005; Rand et al. 2011

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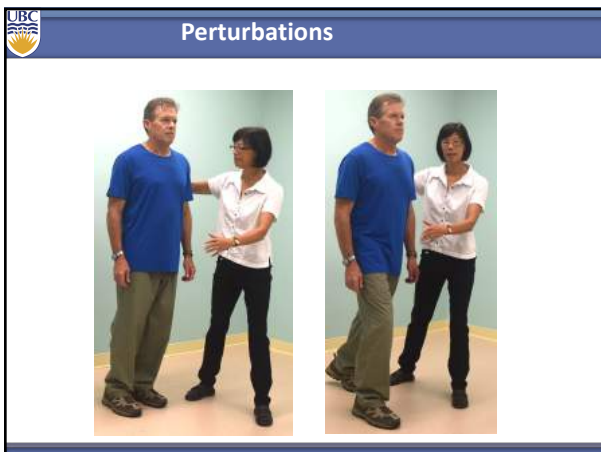
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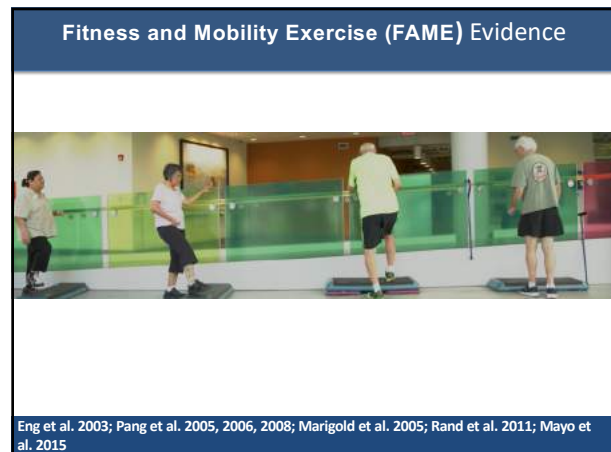
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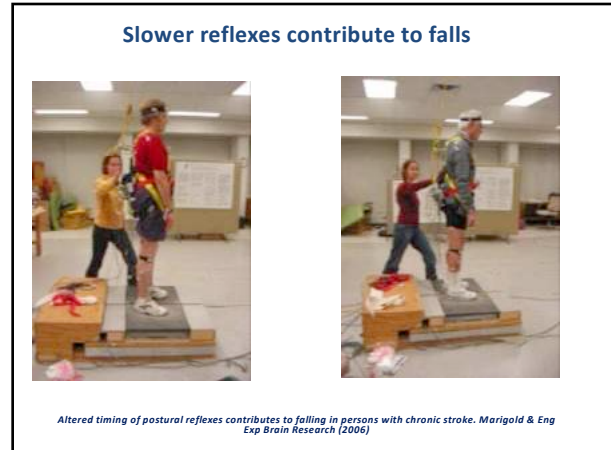


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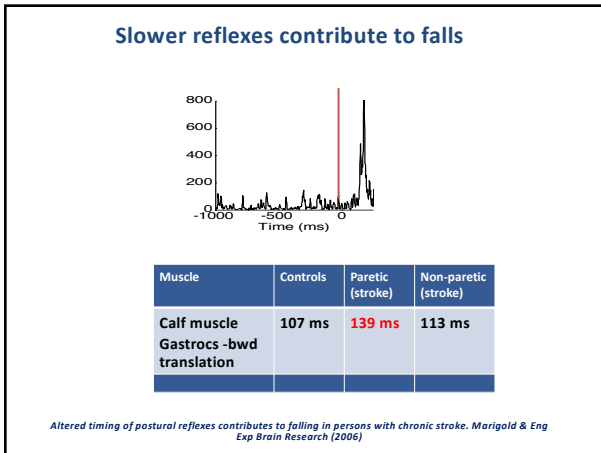
Improvements from FAME

Variable	Change
Balance	2-5 points Berg Balance Scale
Postural reflex	25 ms faster
Falls (12 months)	1.5X more falls in controls
Walking distance	25% further (6 Minute Walk Test)
Balance confidence	6-10 points (Activities-specific Balance Confidence)
Cardiovascular fitness	10% oxygen consumption (VO ₂ max)
Muscle strength	20-25% stronger
Hip bone density	Maintenance vs 3% bone loss in controls
Quality of life	Both groups improve

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FAME improved aspects of thinking

red

green

yellow

red

green

blue

green

red

green

Say the colour, not the written word

Measures ability to direct attention

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Where is FAME operating?

Over 500 sites over 20 countries

In BC:

Vancouver (2 sites, FAME for Stroke, FAME for Neurofitness)

West Vancouver Richmond Powell River

Kelowna Comox Squamish

Starting Australia and Alberta this year

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Goals of FAME Program

- Provide a sustainable program of exercise that is designed to meet the needs of people after stroke who have completed their rehabilitation
- Establish and support the key relationships between the people in fitness centres, the health system and with people after stroke

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The Program Goals

- Increase physical activity
- Address impairments
- Minimise secondary complications
- Improve fitness and mobility

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The Program is for who?

Any time after stroke
 Able to stand (5 minutes)
 Able to walk (10 minutes)
 Follow instructions
 Medically stable
 Independent in transfer and washroom (or have caregiver assist)

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The PRINCE FAME Program Principles

- Progression
- Repetition
- Intensity (and monitoring)
- Normal movement patterns
- Core components (FAB) – functional strengthening, Agility and fitness, Balance
- Encouragement (and education)

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FAME Certification

- 8 hour workshop (theoretical and practical)
- Practice spotting
- Small group practice with participants with stroke
- Screening system in place
- Referral base
- Clinical advisor

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