

Deconditioning & Physical Therapy in Residential Aged Care – An Exercise Physiologist's Perspective

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Kinetic Medicine

A large, stylized orange graphic on the right side of the slide. It consists of several thick, curved lines that form a shape resembling a stylized letter 'A' or a similar abstract form. The lines are a gradient of orange, with the top and bottom lines being a darker shade and the middle line being a lighter shade. The graphic is set against a dark grey background.



'Kinetic'

ki'netik

Adjective

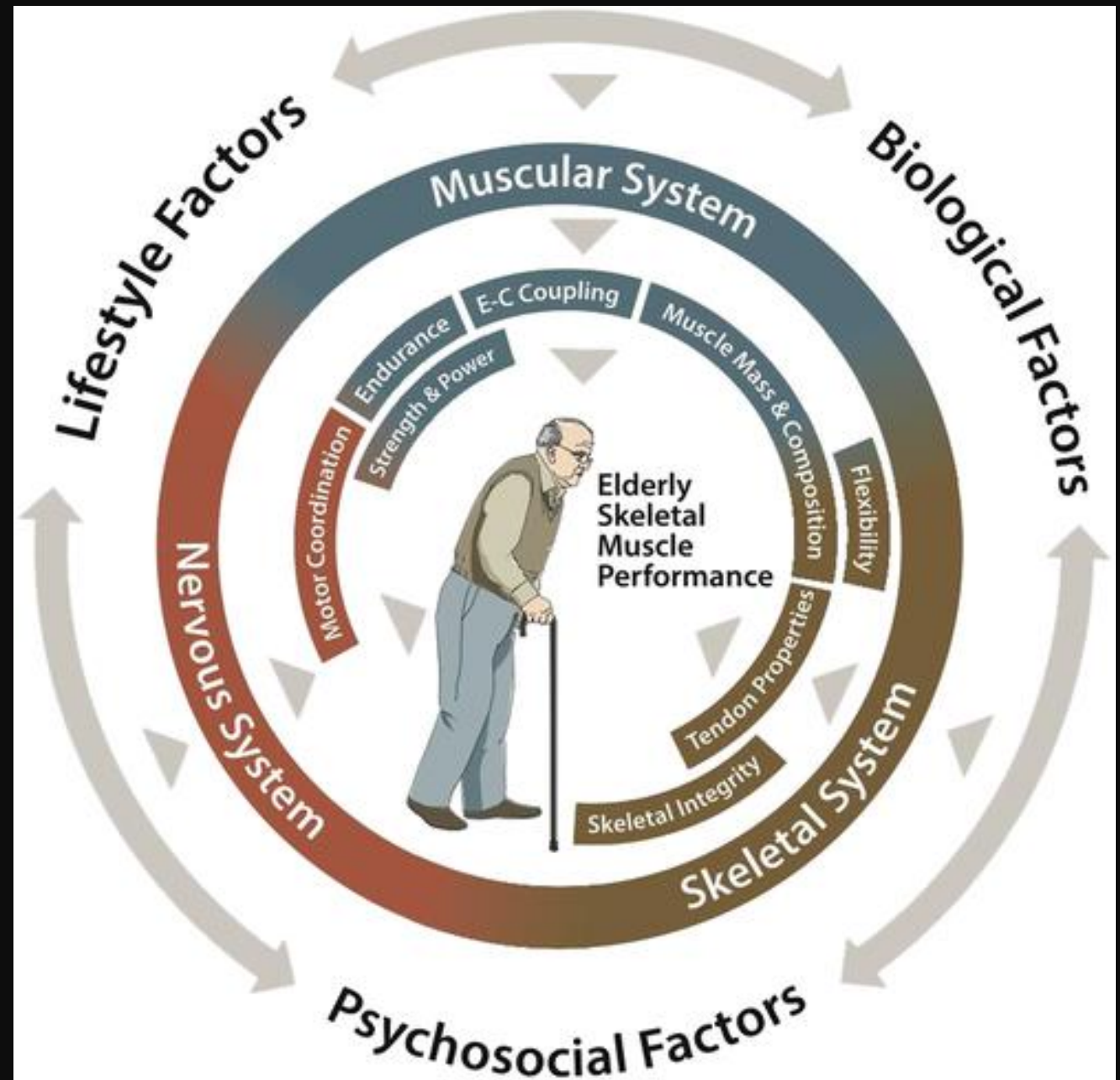
- Relating to or resulting from motion
- Depending on movement for it's effect

Why Exercise Physiology?

Clinical scientists devoted to
exercise medicine

A wholistic perspective on decline

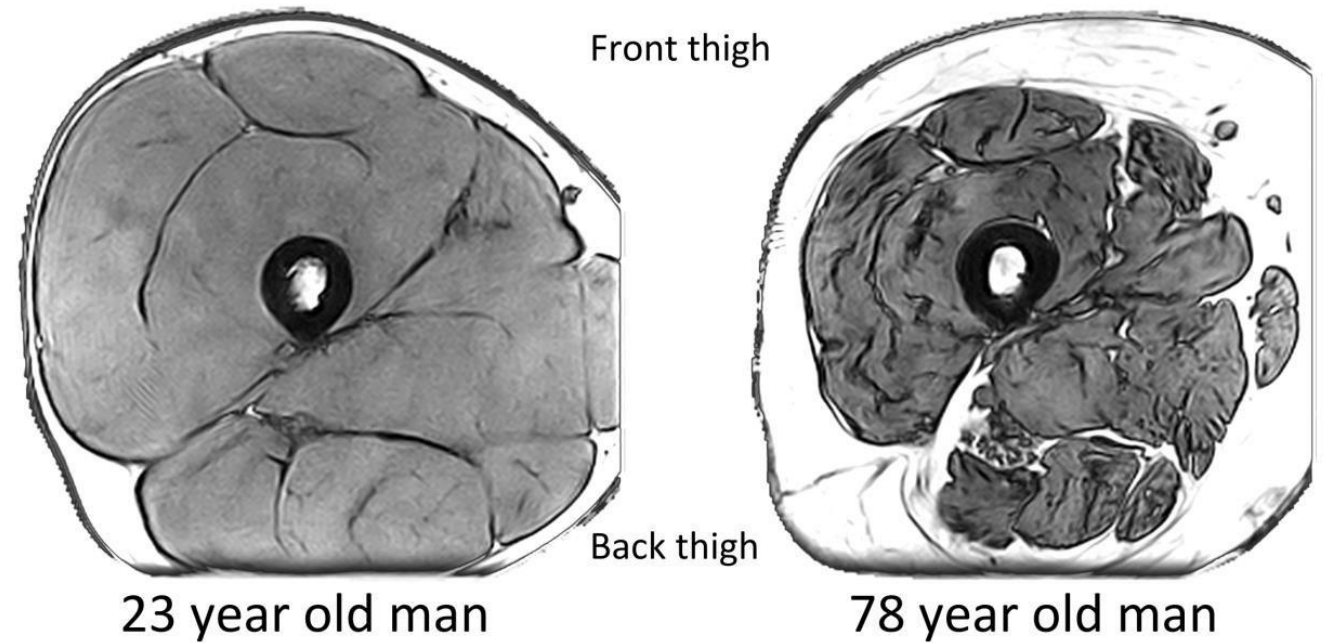
Any approach intended to manage decline must take a functional, multi-system approach that leverages extant redundancy to elicit a favourable response on compromised systems



Sarcopenia

In people aged 75 years or over muscle mass is lost at a rate of:

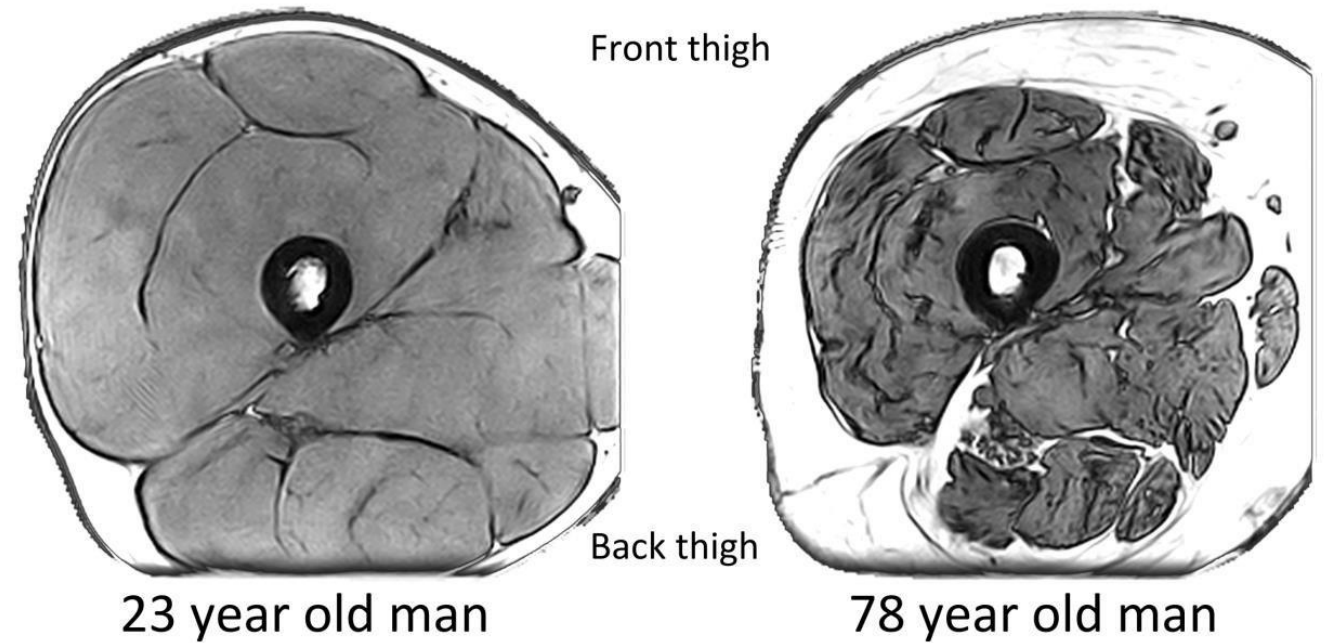
- Women: 0.64–0.70% per year
- Men: 0.80–0.98% per year
- During periods of physical inactivity, as much as 1 kg loss of muscle mass in 10 days has been reported



Magnetic resonance images of the mid-thigh. Femur bone is in the middle creating a black ring, muscles are shaded grey and fat is white.

Sarcopenia

- Exercise and nutrition alone can elicit gains in skeletal muscle mass
- Gains in muscle mass deliver superior reductions in falls risk
- Dose-response relationship between intensity of resistance exercise and gains

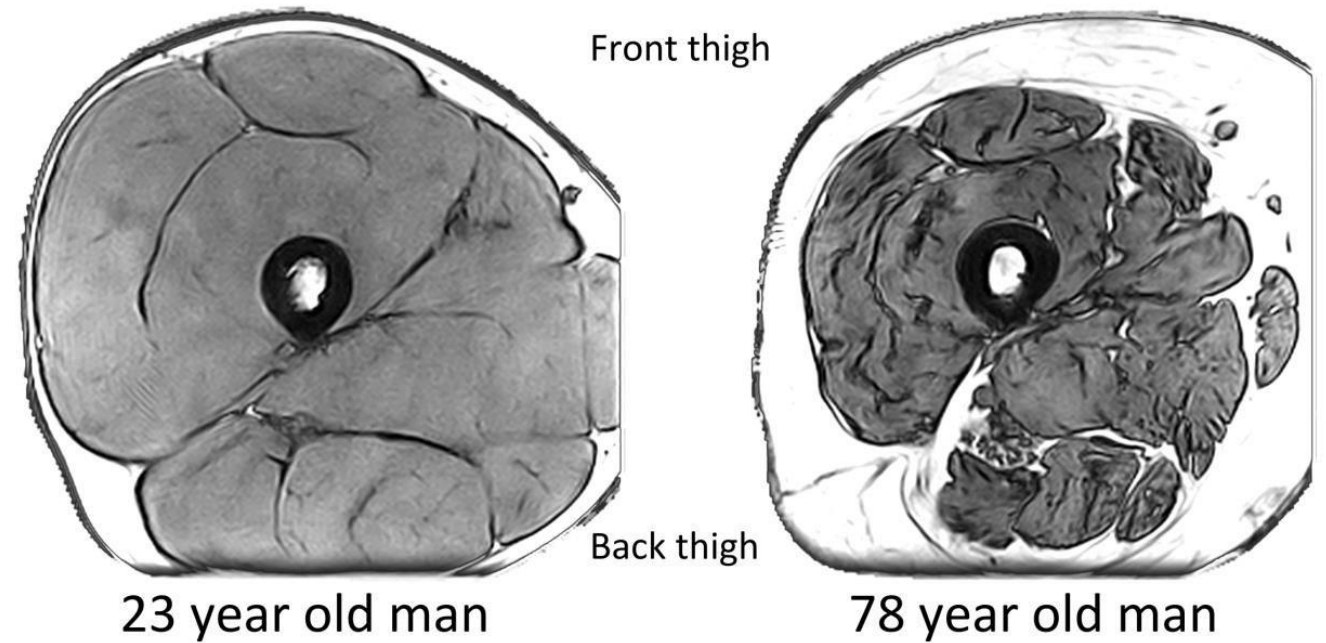


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Sarcopenia

Co-morbid considerations:

- Osteoporosis
- Oncological treatment & metastatic disease
- Metabolic disease



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Neurodegenerative Disease

Emerging evidence that:

- Reducing polypharmacy
- Anabolic exercise
- Boosting nutritional intake

can interrupt the trajectory of frailty and decline in Dementia with Lewy bodies

Inskip et al, 2020

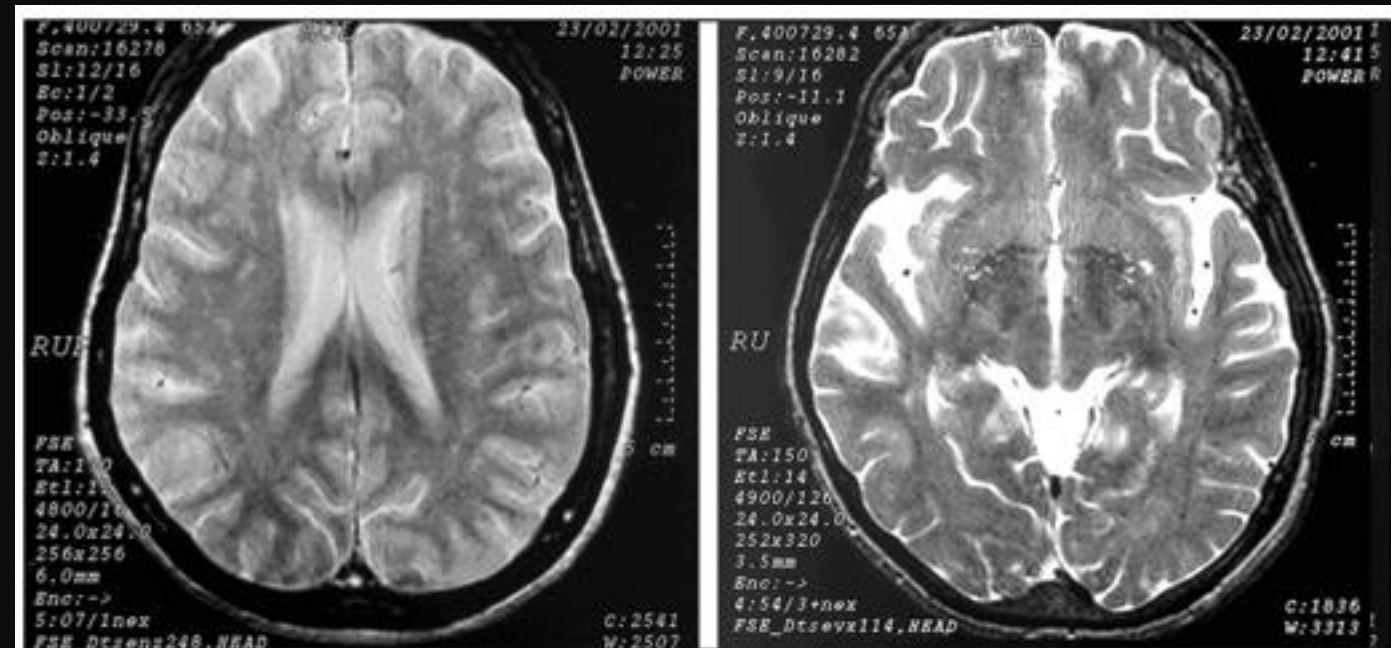


Fig 2. Sixty five year-old patient with a diagnosis of vascular parkinsonism. The magnetic resonance image revealed perivascular space enlargement in the basal nuclei and cerebral peduncles as well as ischemic lesions in the white periventricular and subcortical matter.

Cardiopulmonary considerations

- Strong link between CHF and sarcopenia
- Dual impact of both functional and cardiac decline
- Limited but emerging evidence of exercise just as effective in this specific population

Suzuki et al 2018



A Case Study: 'Annie'

- Female, 77yrs
- Aged care resident ~8yrs
- Chronic back pain (>20yr Hx), T2DM, Bipolar II disorder
- HbA1c – 9mmol
- Ambulates ~50m with 4WW, 1x Ax
- Problematic opiate dependence



A Case Study: 'Annie'

- 10wk intervention
- Psychologically informed practice
- Pain education, behavioural pain management strategies
- Graduated mobility focused prescription
- Team care with GP re: analgesia



A Case Study: 'Annie'

- Walking 200m with 4WW independently
- HbA1c – 6.5mmol
- Nil opiates
- Wt loss - 8kg
- Nil self harming episodes



Thank You

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