

Physical activity and older people with chronic health conditions

Carolyn Page

Physiotherapy Department, St Vincent's Hospital Melbourne

Chronic Health Conditions

- Cardiovascular disease (Heart Disease, stroke)
- Type 2 diabetes
- Cancer
- Arthritis







Impact of Chronic Disease

- Increased mortality and morbidity
- Increased healthcare cost

 Evidence linking chronic diseases to physical inactivity and diet



Physical Exercise & Chronic Disease

One in three Australians gets enough exercise

- Chronic diseases :most common cause of preventable death
- Physical activity and diet can reduce the risk of developing chronic disease

Solution: Implementation of long-term behaviours that encourage healthy lifestyles in the primary care setting

Clinical care Standard 2017





Osteoarthritis of the Knee

Osteoarthritis is one of the most common chronic joint conditions in Australia.

It can cause pain, loss of mobility and reduced quality of life.

Knee osteoarthritis is a major form of the condition and the main reason for knee replacement surgery, with excess weight being a key risk factor.

About 2.1 million Australians are estimated to have osteoarthritis

It is the fourth most common reason people visit GPs



30% of people aged 65 or older report some joint symptoms

\$1.6 billion spent on treating osteoarthritis per year

Effective management in primary care can reduce the burden of knee osteoarthritis on patients and the healthcare system



Provide a comprehensive clinical assessment



Educate the patient and develop a self-management plan





Include non-surgical treatments: weight loss, exercise, pain management



Monitor the patient through planned clinical reviews



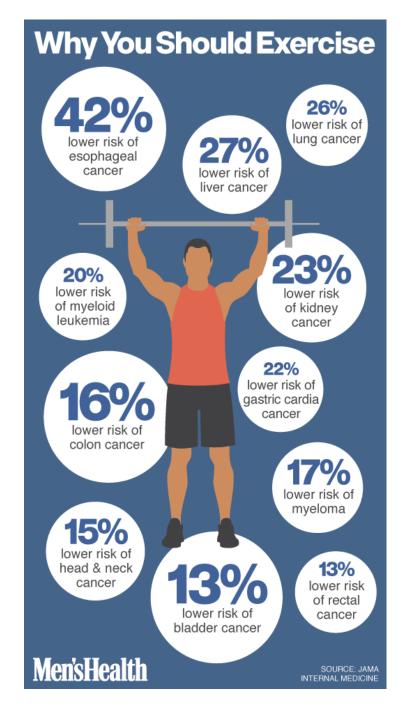




Refer the patient to a surgeon or rheumatologist if conservative management no longer works

For more information on the Osteoarthritis of the Knee Clinical Care Standard go to www.safetyandquality.gov.au/ccs

Why You Should Exercise 42% 26% lower risk of lung cancer **27**% esophageal cancer lower risk of liver cancer **23**% lower risk **22**% of kidney cancer lower risk of gastric cardia cancer 20% lower risk lower risk of of myeloid endometrial leukemia cancer 16% **17%** lower risk of lower risk of myeloma colon cancer 13% lower risk **15%** of rectal cancer lower risk of head & neck cancer 10% lower risk of lower risk bladder cancer of breast cancer **Women's Health** SOURCE: JAMA INTERNAL MEDICINE





"What fits your busy schedule better, exercising one hour a day or being dead 24 hours?"

Australian Physical Activity Guidelines

National Physical Activity Guidelines

- The Australian Department of Health and Ageing has produced a set of guidelines on the minimum levels of physical activity required for optimum health and body weight.
- They are not designed for high-level fitness or sports training, but are intended to provide realistic strategies for incorporating physical activity into our daily lives.





- Doing any physical activity is better than doing none.
- Be active on most, preferably all, days every week.
- Accumulate 2 ½ to 5 hours of moderate intensity or 1 ¼ to 2 ½ hours of vigorous intensity
- Do muscle strengthening activities on at least 2 days each week.

Therapeutic Exercise vs physical exercise

Strengthening



Neuromuscular training

Range of movement/Stretching







Considerations when exercising

- What comorbidities ?
- Prior exercise experience
- Prior exercise tolerance
- To consider management strategies for persistent pain.



- •Systolic BP >180 or <100
- •HR: should be regular and resting (60-100)
- Call health professional if worried about a patient

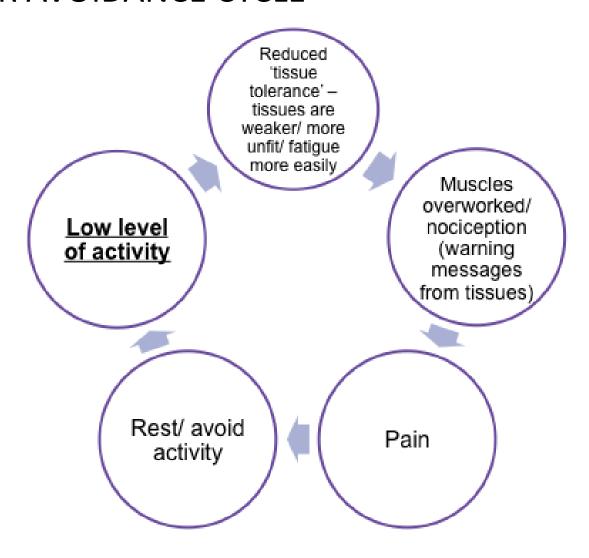
Persistent pain (Chronic Pain)

- Pain >3 months.
- Often no diagnosis.
- Can involve changes within the nerves and nervous systems

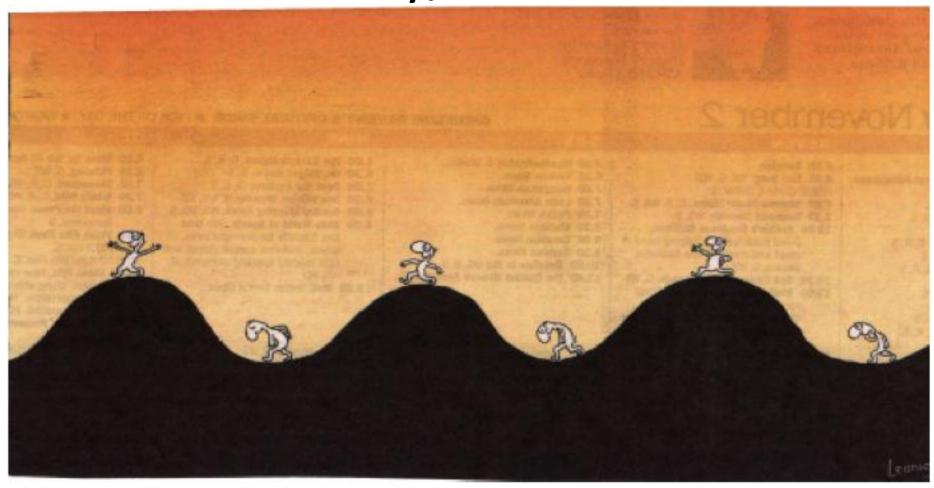
1 in 5 Australians live with persistent pain



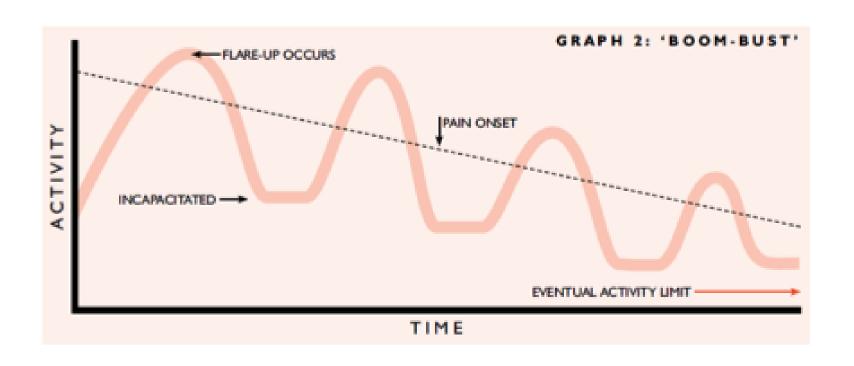
FEAR AVOIDANCE CYCLE



Over Activity/Boom-Bust etc.



Over time activity levels.....



Exercise and persistent pain

- Pain does not = harm
- Establish a baseline
- Goals: small, patient focused
- Regular contact
- PACING

On the first day only do the number of repetitions you can do before you feel a change From the baseline you need to increase the time, reps or weight on a gradual basis Exercise 1 Exercise 2 Exercise3 Exercise 4 Exercise 5 Diagram Baseline Sets/Reps Day Target Increase Target Increase Target Increase Target Increase Target Increase

Before you do your exercises, have a target set out in how many you would like to complete Do not do more than this to avoid over-activity

Pain Resources



- http://painhealth.csse.uwa.edu.au/
- http://www.paintoolkit.org
- http://www.painaustralia.org.au
- http://knowpain.co.uk

Osteoarthritis (OA)

- OA is a painful condition that affects
 - synovial joints
 - subchondral bone
 - cartilage
 - ligaments
 - muscle
- Not a wear and tear disease
- Complex condition that is influenced by an interaction between genetic, biomechanical, metabolic and biochemical



Clinical Guidelines (Recommendations based on evidence)

	EULAR	NICE	ACR	AAOS	OARSI
Exercise	*	*	*	*	*
Strength/ resistance	*		*	*	*
Aerobic	*	*	*	*	*
Stretching /ROM	*				*
Neuromus cular	*			*	*

Note: Overall recommendations of pacing, initial instruction with emphasis on independent programs. No clear evidence on delivery mode/structure

Compliance

- Evidence in many areas of Chronic disease (diabetes, cardiopulmonary, osteoarthritis)
- Improvements in outcomes with exerciseshort term
- Compliance after 12 months poor
- Strategies may include: education, home exercise programs, maintenance classes, health coaching

Summary



- Chronic disease is common
- Chronic disease can be improved with exercise
- Consider co-morbidities and persistent pain symptoms
- Use of Pacing strategies
- On going compliance with exercise