Education about joint protection strategies: hand osteoarthritis

**Intervention**

Education about joint protection strategies (i.e. techniques for doing everyday activities in ways that minimise strain on joints).

**Indication**

Pain from hand osteoarthritis (OA). The aim of the intervention is to lessen pain and improve functioning for people with hand OA.

Symptomatic hand OA affects approximately 20% of people over 55 years of age. It has an impact on quality of life by causing variable levels of pain, loss of function, and stiffness; it may also result in aesthetic changes.

In the trial, participants applying joint protection strategies were more likely to be classed as responding to treatment at six months compared with no joint protection strategies.

**Availability**

Joint protection is a part of osteoarthritis self-management.

Education about joint protection can be delivered within the general practice setting.

Patients can also be referred to an occupational therapist (OT) for detailed advice, individual problem-solving techniques and assistance with incorporating the strategies into daily activities.

**Description**

In the trial, patients received four 1-hour sessions (once weekly), and were taught joint protection strategies. These strategies were:

- to distribute the weight of lifted objects over several joints (e.g. spread the load over two hands)
- to avoid repetitive thumb movements and putting strain on the thumb
- to avoid a prolonged grip in one position
- to use as large a grip as possible
- to reduce the effort needed to do a task (e.g. use labour-saving gadgets, avoid lifting heavy objects, and reduce the weight of what is lifted)
- to conserve energy by planning activities (e.g. organising tasks more efficiently) and pacing (e.g. taking regular short breaks).

These strategies were applied to daily tasks such as opening jars, carrying objects and filling a kettle (see Figure 1 and the workbook listed in Consumer resources).
Description
Cont’d

Filling a kettle

**BETTER:** Hold kettle with 2 hands as you fill, one on handle, one underneath.

**BEST:** Rest the kettle on the sink bottom or edge as it fills – don’t take the weight on your hands. (If left inside the sink – this works best if you have a mesh basket. Make sure water can’t get in the electric connection.)

**BEST:** Use a lightweight plastic jug to fill the kettle – leaving your kettle by the plug. Use only the amount of water you need.


Information and workbooks for patients

In addition to the joint protection strategies, patients were given standardised written information (from Arthritis Research UK) about hand OA and its management – managing pain during everyday activities, how to change habits, long-term and short-term goal setting, weekly home programs to practise skills taught, and weekly review of home programs.

They were given a workbook which contained key points from each session, photographs demonstrating how to use the joint protection principles while doing daily activities, and weekly activity diaries (see Consumer resources).

Patients were also informed about how joint protection fits into broader management of hand OA and joint pain.

www.racgp.org.au/handi

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Description

Chart 1: Managing hand joint pain and OA successfully

- Be positive about yourself
- Respect pain
- Follow any pain medication prescriptions
- Managing pain and fatigue:
  - use of heat and cold
  - pacing
  - planning
  - work/activity simplification
- Using painkillers and non-steroidal anti-inflammatory gels
- Pain management methods
- Express your feelings more (to others or in a diary)
- Learn more about osteoarthritis and helping yourself
- Use gadgets and ergonomics
- Joint Protection
- For hip and knee OA: wearing insoles/good supportive shoes
- Effects of osteoarthritis
  - Feeling tired
  - Pain
  - Muscle aches
  - Joint enlargement
  - Stiffness
  - Deformities
  - Problems doing daily activities, work and leisure
  - Feeling ‘low’
  - Frustration
  - Sleep problems
  - Feeling stressed
  - Being less fit/mobile
  - Being overweight
- Get a night’s sleep
- Learn to relax effectively
- Setting goals to make changes
- Physical activity:
  - Look good and feel good!
- Have some fun and laugh!
- Take up new hobbies and social activities
- Healthy eating
- Alternative/complementary therapies
- Ask for help appropriately

**Tips and challenges**

Incorporation of strategies into a patient’s daily routine may be improved by encouraging the patient to come up with solutions to their individual problems, using the joint protection strategies.

To improve adherence to self-management strategies, patients should be encouraged to only take on one or two strategies at a time, and develop habits and routines gradually. Once strategies become habitual, further self-management strategies can be adopted.

Alternative interventions may be needed to manage pain in the longer term. In the trial, benefits in pain and function were not maintained at 12 months.

**Grading**

NHMRC Level 2 evidence.

**Training**

Materials used to train the occupational therapists who delivered the intervention in the trial have been made available.


**References**


**Consumer resources**

**Arthritis Research UK resources used in the trial**

Downloadable patient information:

- Looking after your joints when you have arthritis www.arthritisresearchuk.org/arthritis-information/arthritis-and-daily-life/looking-after-your-joints.aspx
- Joint projection workbook – Refer to downloads.

**Australian resources**

- Occupational Therapy Australia lists hand therapists in its ‘Find an OT’ section. www.otaus.com.au
- Independent Living Centres Australia has labour-saving gadgets that can be useful. www.ilcaustralia.org.au/

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**Downloads**

- Joint Projection workbook for patients
- Joint Projection leaders manual


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