

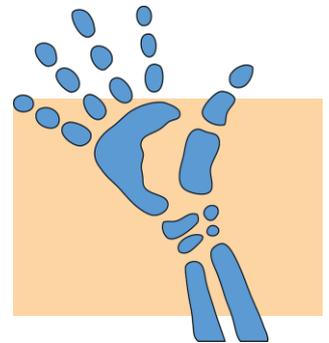
Disability Information

Joint Protection

What is joint protection?

Everyday the body's joints (the connections between two or more bones) are put under stress and strain as daily tasks and activities are performed. With age, injury or illness, joints can become stiff and inflamed and lose their ability to tolerate as much stress.

Joint protection involves using techniques and assistive technology (aids and equipment) to minimise the stress and force placed on joints, to reduce pain and prevent or protect against further joint damage or deformity.



Respect pain

Pain is the body's warning sign of excess joint stress. If pain is felt during an activity, it is advisable to immediately stop and rest.

It is important to try to understand the source of the pain and learn to distinguish between usual discomforts, which might be caused by regular conditions such as arthritis, and increased pain caused by excess joint stress. For example, if the pain lasts for more than an hour after the activity ceases, it might indicate that the activity was too stressful and needs to be modified.

Adjust the level of the activity according to pain. Consider whether another larger body part could be used, can the activity be avoided, or would an appropriate assistive device be of use?

Avoid deforming positions

Avoid positions that cause increased strain on joints by planning ahead and changing the way the body is positioned during everyday activities.

Tips on how to achieve this include:

- Limit actions which involve pushing, pulling, jarring or twisting and where possible try to avoid making a tight fist or small grips with your hands such as pinching, wringing or squeezing.
- Always perform turning motions (for example, taps, jars, lids) toward the thumb side. Where possible, use your left hand to open or turn on, and right hand to close or turn off.
- Use assistive technology; for example, a jar opener will reduce the stress from twisting and a key turner reduces the stress from pinching.
- Avoid excess pressure against the radial (thumb side) of the fingers.

- Avoid excessive and constant pressure against the pad of the thumb or back of the fingers (such as when resting the chin on the back of fingers).
- Avoid using tight grips such as those used when holding a pen, knife, toothbrush, and shopping bag or gardening equipment. Use objects with larger, built up handles made from plastic or foam to reduce joint stress.
- When holding an object, use a grip that keeps the hand in alignment with the arm with the wrist bent slightly back.
- Avoid heavy lifting and if possible, sit instead of stand to perform activities.
- Extend joints as opposed to contracting them.
- Do not force a joint beyond its limit but beware that your limits may change from day to day.

Use the strongest joint and correct body mechanics

It is important to use proper body mechanics and to avoid continuous weight bearing or deforming postures.

Strain from an activity can be more easily managed by using larger, stronger joints to help distribute the load. This helps to spread the stress over a larger area and decreases the pressure on the smaller, weaker joints.

When possible:

- Carry items on the forearm or with both hands.
- Use open palms and the weight of the body to move or open things.
- Use hips to push doors open.
- Utilise correct lifting methods—lift with the legs and not the back, hold the object close to your body so that larger muscles are used.
- Keep the head and trunk aligned.
- Keep the shoulders and hips parallel.
- Maintain good balance by keeping legs apart for a strong base of support.
- Maintain the natural curves of the spine.
- If possible, push rather than pull an object.
- If possible, push rather than lift an object.
- Slide objects along a counter rather than lifting them.
- Use slow, smooth movements.
- Alter the height of furniture to avoid placing excess stress on hip and knee joints when sitting or standing.
- Review work stations to minimise excess stress on the neck and back.

The better the body is aligned, the less strain there is on the muscles and joints and the less chance of becoming fatigued.

Change position regularly and keep moving

Muscles become tired when kept in one position for a length of time, leading to joint stress and stiffness.

When static positions are involved, for example holding a book, peeling vegetables or playing cards, try to alter your position and/or posture every 10 to 20 minutes. Consider using assistive technology to help, such as a card holder, slip-resistant mats, spiked chopping boards or a book holder.

It is important to alternate between light and moderate activities throughout the day and remember to balance activities with plenty of rest to avoid over use and exhaustion of joints. Pre-plan, set priorities, and where possible try to break larger activities into smaller ones.

For more suggestions on energy conservation and work simplification refer to our information on *Energy Conservation*.

While too much activity can place excess stress on joints, a lack of movement can also cause joints and muscles to stiffen. Maintaining exercise is an important part of strengthening the muscles around the joint and maintaining bone strength. It can also assist in maintaining an ideal body weight, as excess weight may add extra stress to joints. It is important to talk to a doctor or health professional about an appropriate exercise routine tailored to individual capabilities.



Use adaptive equipment and splints

In some cases, a splint might provide protection and additional support to weak or unstable joints. It is important to discuss this with a trained health professional before using splints.

Assistive technology can make a task easier by protecting joints and reducing the stress placed on smaller and weaker body parts. The Occupational Therapists at the Independent Living Centre can provide information and advice on equipment and techniques that may assist in performing everyday tasks.

A range of gadgets and gizmos is available to view and trial by appointment.

