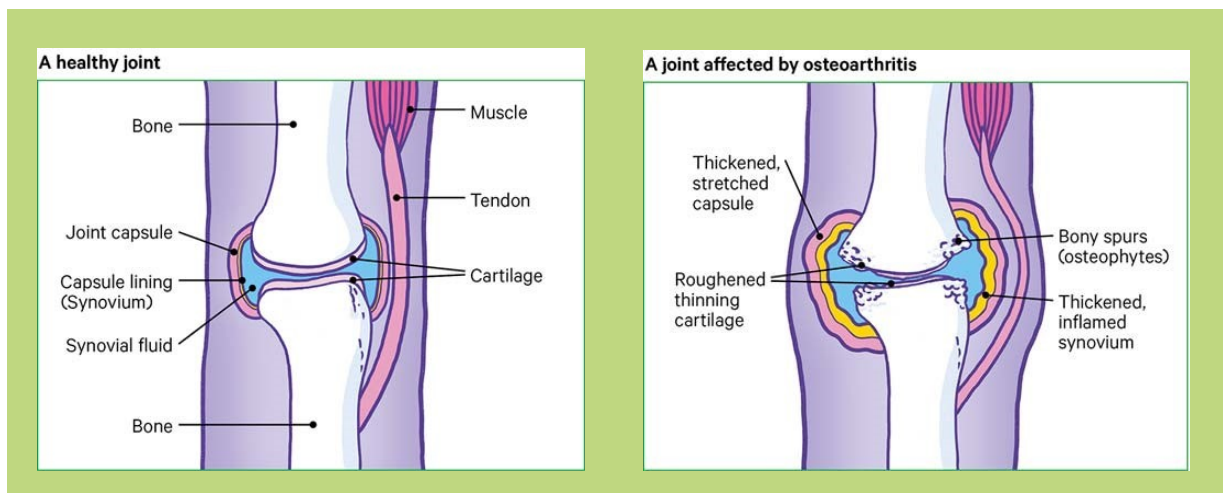


# Joint Protection and Energy Conservation Hand Therapy

## Introduction

Arthritis literally means inflammation of the joints. Swelling/inflammation in the joint can cause the surrounding soft tissues to stretch resulting in additional pain. When soft tissues stretch, movement can be inefficient and there is the potential for further structural damage. There are many different types of arthritis and there is no cure. Depending on the type, there may be medications to help manage your symptoms, however, how you use your hands also has an impact on your symptoms.

The normal joint is made up of bone, cartilage, joint space, synovial membrane, and fibrous capsule. Swelling can expand the joint space, stretch the capsule, and alter the position of the bones. Early on this is reversible. If the level of disease is more advanced and the disease remains active, irreversible damage can occur. The normal gliding movements are lost, pain increases and function becomes a problem.



Pain causes you to assume postures and positions that seem to reduce your pain. In fact, these unnatural positions and postures can cause muscles to contract into positions that are not good for normal function. For example, knees kept in a bent position because of pain and swelling will eventually become tight in this position and therefore difficult to fully straighten.

It is therefore extremely important to protect the joints especially during a flare up. Not all types of arthritis are at risk of deformities, but it is good practice for everyone with joint pains to follow these guidelines for symptom management.



## What is Joint Protection?

Joint protection consists of a variety of techniques designed to reduce stress on your joints. By reducing the stress and strain you help to preserve the condition of your joints and your ability to functionally perform.

There are two types of stress on joints:

**Internal Stress:** This is inflammation and swelling caused by the disease process. This can be helped by medication, rest, splints, and remedial techniques such as the use of heat and cold treatments.


**External Stress:** is caused by certain activities pulling on a potentially unstable joint. For example, turning a stiff tap or carrying heavy items.

## How can you protect your joints?

Techniques which can help your joints include:

- Respect your pain
- Use prescribed splints to support your joints
- Use of adaptive equipment
- Maintain muscle strength and movement of your joints through controlled/prescribed exercises
- Use stronger, larger muscles and joints
- Slowly changing your lifestyle and the way you do things
- Implementing good positions
- Support small joints and spread weight/loads evenly
- Avoid keeping joints/muscles in one position for prolonged periods of time
- Consider relaxation, pain and strength management techniques

Adapting your environment or changing your habits may seem daunting at first. Think small and only change a few things at a time, ensuring your changes become habitual.





## Main Principles and Examples of Joint Protection

### Respect your pain:

- Stop activities before the point of pain
- Avoid or modify activities that put strain on stiff or painful joints
- Take frequent breaks


### Avoid strain on individual joints:

- Use your forearm to carry a bag
- Hold bags around your arm or shoulder instead of with your fingers
- Scoop objects with the palm of the hand, with the palm facing up, to carry them
- Push up from a chair using your legs and forearms
- Use lightweight, large handles cups and cutlery
- Do not rest your chin on knuckles or fingers
- Push open doors using body weight instead of your fingers

### Avoid tight, prolonged or static grips:

- When reading rest your book on a cushion or table
- Keep jars and taps loose or use a jar opener and non-slip mat to stabilise
- Use large-handled peeler for vegetables, buy frozen or pre-chopped
- Use a saw action knife for cutting or other adaptive knives
- Slide pots/pans along work top instead of carrying
- Use stainless steel basket to cook/drain to avoid lifting a heavy pan of hot water
- Use a draining spoon to lift vegetables out of pot
- Fill kettles with a lightweight jug, or use a travel kettle
- Make handles larger
- Use non-slip mats under mixing bowls or jars when opening
- Use lightweight iron

### Avoid positions of deformity:

- Use of tap levers
  - Use of wall mounted can opener or electric can opener
  - Put a cloth around a tap to wring it out
  - Roll hand washing in a dry towel instead of wringing it out, drip dry or spin dry
  - When opening a jar, use both hands, use dycem or a v-shaped jar opener
- 

## Energy Conservation

If your arthritis is affecting more than your hands, you may also want to apply energy conservation strategies. This helps to modifying your daily routines to prevent over exertion of energy and the load on your joints. By pacing activities throughout the day and making additional modifications you give your body the opportunity to recover from these external stresses. Here are some ideas:

### Personal Hygiene & Dressing:

- Using a dry robe instead of a big heavy bath towel or smaller hand towels
- Use of electric toothbrush / razors
- Use of lightweight clothing and large / easy fastenings
- Use of a stool to perch at the sink
- Consider the time of day you shower/bathe to prevent rushing
- Sitting when drying / dressing
- Use of bathing equipment such as bath board/ shower stool
- Use of long handled aids such as sponge and shoehorn
- Use of non-slip mats
- Raised toilet seat and grab rails

### Cooking & Housework:

- Lightweight pots/pan with two handles
- Use of a stainless-steel cooking basket
- Sliding heavy pots / pans across the work surface instead of lifting
- Sit/perch to prepare food
- Use ready chopped vegetables
- Double recipes/portions to freeze for another day
- Lightweight/travel kettle and don't overfill
- Keep frequently used items in easy to reach cupboards
- Perch/sit to do laundry and ironing
- Use of long handled cleaning attachments and helping hand grabber
- Small loads of washing, not large ones

### Body Mechanics & Pacing:

- Keep loads close to your body
- Push & pull instead of lifting
- Support your elbows and forearms where able
- Delegate where necessary / able
- Take frequent breaks
- Spread activities out throughout the day/week
- Keep frequently used items at easy reach
- Allow plenty of time for tasks to prevent rushing
- Gather all the items you need before a task

## Useful Adaptive Equipment

The following are small pieces of equipment which may help take strain off your joints and make completing daily activities easier. We do not endorse any particular company or shop and only you will know if the following may be of benefit to you. It is worth paying a visit to a mobility shop and trying before you buy, most will accommodate this and are normally happy to further advise you. These are just a few suggestions; there are many other items out there!



### Twister Grips or Dycem

Dycem is a brand name of a resistive material that is designed to give greater resistance when gripping but there are lots of other types and alternatives. It can sometimes be purchased shaped specifically for jars or sometimes as a roll or sheet to be cut and used as required.



### Tap Turners

These can allow you to easily turn your taps on and off without gripping tightly and instead by using your forearms.



### Key Turners & Grips

These increase the surface area of your key making it easier to hold and grip. Some can hold multiple keys like a key ring.



### One Touch Tin & Jar Openers

Battery operated tin openers can open tins by the touch of a button.



### Pen Grips & Larger Pens

Increasing the surface area of a pen or having a larger pen that is free flowing can make writing easier and more comfortable.



### Book Stand

Can be helpful if cooking from a recipe book or reading in bed or when seated. Can take the strain of your hands by holding the book for you and all you have to do is turn the page.

## Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty. If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email [asp-tr.patient.advice@nhs.net](mailto:asp-tr.patient.advice@nhs.net). If you remain concerned, the team can also advise upon how to make a formal complaint.

Author: Sarah Joyce, Specialist Occupational Therapist

Department: Hand Therapy Department

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**Ashford Hospital** London Road, Ashford, Middlesex, TW15 3AA Tel: **01784 884488**  
**St. Peter's Hospital** Guildford Road, Chertsey, Surrey, KT16 0PZ Tel: **01932 872000**

Website: [www.ashfordstpeters.nhs.uk](http://www.ashfordstpeters.nhs.uk)