

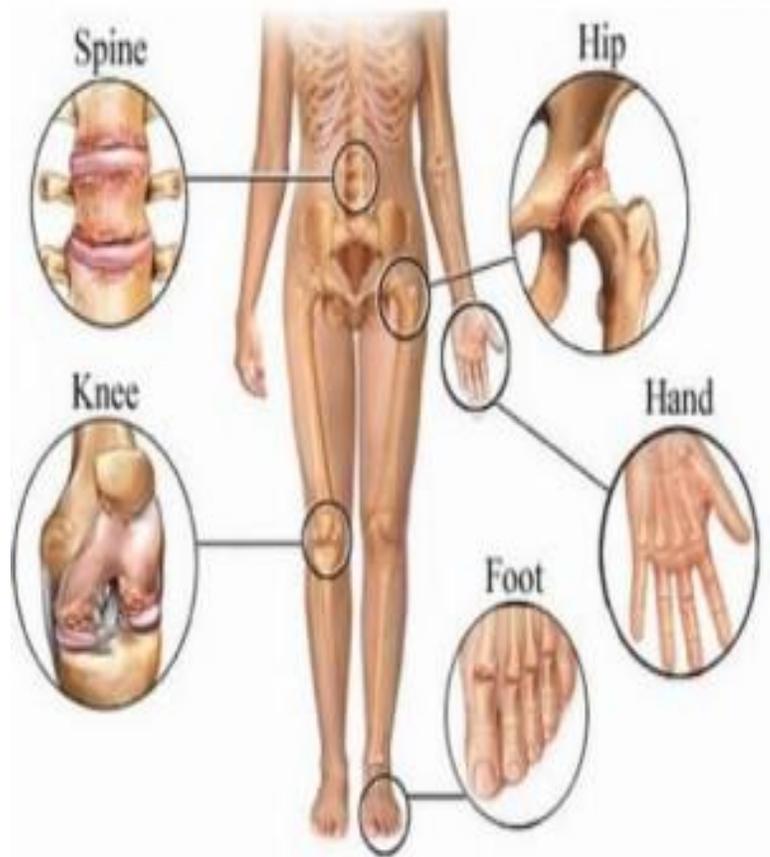
# ARTHRITIS

There are many types of arthritic processes that can cause joint changes, pain and loss of motion and strength in the hands. Many excellent and detailed resources are available and will be listed under "resources". Here is a brief overview.

## What Is Arthritis?

Arthritis is the number one cause of chronic disability. Affecting nearly 1 in 5 people in UK, it refers to more than 100 diseases that cause pain, stiffness and swelling from the inflammation of a joint or the area around joints.

The three basic types of arthritis that may cause knee and hip pain: osteoarthritis and inflammatory arthritis (most commonly rheumatoid arthritis), and traumatic arthritis.



## What is rheumatoid arthritis?

In some types of arthritis, such as rheumatoid arthritis, the synovium becomes inflamed. This inflammation causes chemicals to be released that thicken the synovium and damage the cartilage and bone of the affected joint. This leads to inflammation of the synovium causing pain and swelling.

## What is inflammatory arthritis? What Are the Treatment Options for Arthritis?

Because there are so many types of arthritis, each type of arthritis has different symptoms and treatments. The good news is there are many ways to help control

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arthritis. Care for arthritis often involves more than one type of treatment. Treatment may vary over time and may be different depending on the kind of arthritis. Consult your doctor to discuss the best treatment options for you.

There are three basic categories of treatments, and your plan may involve one, two, or all three. Brief details are provided here and you can also go to individual sections for each option. Click the links to these sections for detailed information that may help.

## Lifestyle Changes

It's hard to make changes in your life, but altering some small daily habits can make a big difference to the way you feel every day. Think about:

**Medication:** Many drugs, both prescriptions and over-the-counter medications, are used to treat arthritis. Common medications are aspirin-free pain relievers, anti-inflammatory drugs, corticosteroids, disease modifiers, and sleep medications.

**Exercise:** Regular exercise is important to keep the body moving and flexible. It may lessen pain, increase movement, reduce fatigue, and helps you look and feel better.

**Heat or Cold:** Use of heat or cold over joints may provide short- term relief from pain and stiffness.

**Pacing Activities:** Pacing helps protect your joints by alternating periods of activity with periods of rest so that your joints don't tire from the stress of repeated tasks.

**Joint Protection:** Joints can be protected by learning to use them in ways that avoid excess stress. One way of doing this is to avoid using sore and weak joints. Unless larger joints are sore, for



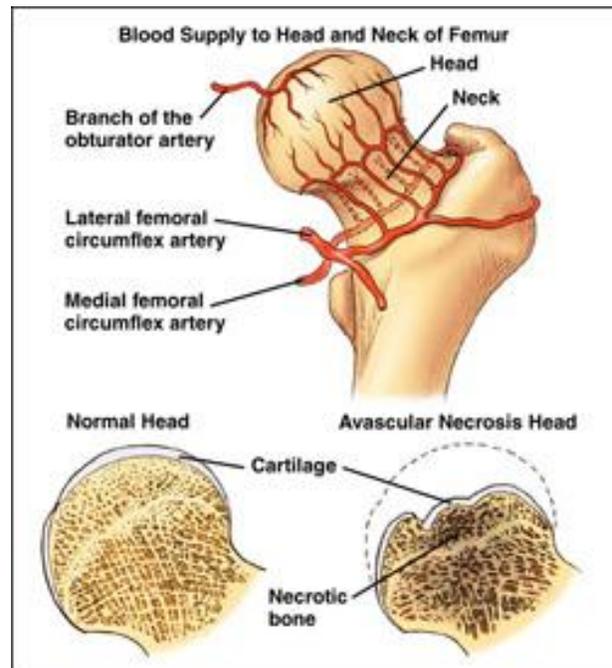
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example, it is best to use them when carrying heavy items. The second method is walking with assistive devices like a cane. Lastly, weight control helps ease pain by reducing stress on your joints.

**Self-Help Skills:** You can learn ways to better manage how arthritis affects you emotionally by talking about your feelings with family members and friends, doing mental exercises, and by joining your local arthritis support group.

**Surgery:** Most people will not need surgery, but in many cases surgery may be effective in minimising or eliminating pain when other treatment methods have failed.

Not all surgical procedures are alike. In fact, many advances have been made recently allowing surgical procedures that are much less invasive. Such minimally invasive procedures are revolutionising the way patients experience and recover from surgery. New procedures may allow for: less postoperative pain, a faster recovery period, and a shorter hospital stay.



This chronic disease results when, for unknown reasons, the immune system mistakenly attacks the tissue that lines and cushions the joints. As cartilage wears away, the knee often becomes stiff and swollen. A well-known example is rheumatoid arthritis.

## What is traumatic arthritis?

The culprit here is a serious hip injury or fracture that can lead to a condition called avascular necrosis. In avascular necrosis, the blood supply to the ball portion (the

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femoral head) of the thighbone is cut off and the bone begins to wither. As a result, the surrounding cartilage begins to deteriorate, producing pain and other symptoms.

## **What is fibromyalgia?**

Fibromyalgia is the second most common type of arthritis affecting 750,000 people in UK, mostly women; 70 to 90 percent of people who develop this disease are women aged 20 to 50. Fibromyalgia is a disease involving pain in muscles or joints with no clinical signs of infection. It is often misdiagnosed as chronic fatigue syndrome, and usually does not require surgery.

## **What Causes Arthritis?**

The causes of the 100 types of arthritis are unknown. Because there are so many different forms of arthritis, the causes are likely to vary. Scientists are currently examining how the roles of major factors including genetics and lifestyles affect the development of arthritis.

## **What changes occur in the cartilage of an arthritic hip?**

In a healthy hip, cartilage cushions the area surrounding the hip ball and socket to allow easy movement without pain. In an unhealthy hip, the cartilage is damaged or worn away causing pain from bones rubbing and grinding together.

## **What changes occur in the cartilage of an arthritic knee?**

In a healthy knee, cartilage protects and cushions bone surfaces that come together at the joint allowing bones to move without friction. In an unhealthy knee, cartilage is damaged or worn away causing pain from bones rubbing together.

## **What Are Some of the Symptoms of Arthritis?**

The type of pain caused by arthritis depends on the type you have. Pain from arthritis can be continuous or intermittent. Pain may occur after activity or exercise but it may also happen even if you have been resting and still for a period of time. Pain may be concentrated in one spot or you may feel it all over your body. Joints

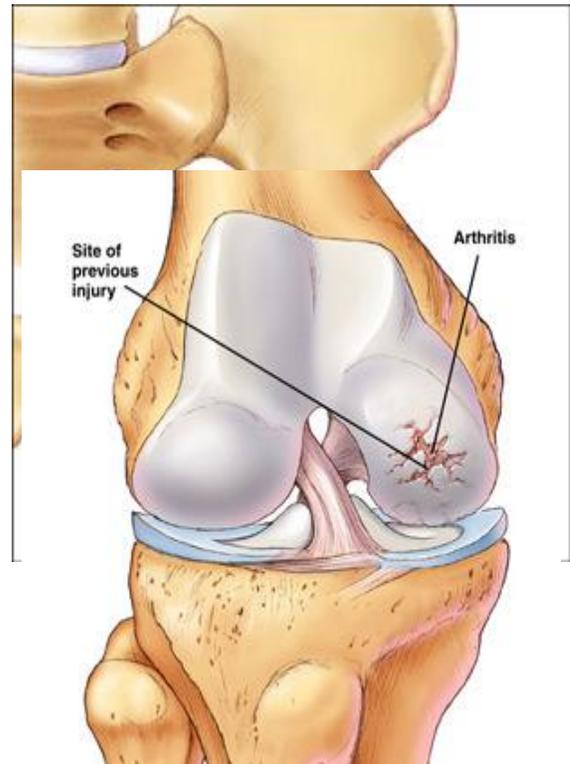
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may feel stiff and difficult to move. Daily chores such as climbing stairs and opening cans may become a challenge. You may notice that pain is more severe during certain times of the day or after performing certain tasks.

Some kinds of arthritis cause swelling or inflammation. The skin over the joint may appear swollen and red, and feel hot when touched. Arthritis may also cause fatigue or weariness.

## Osteoarthritis (OA)

Osteoarthritis is caused by wear-and-tear on the joints. Anyone over the age of 40 has some degree of arthritic changes in their joints. The level of impairment may be impacted by our genetic predisposition toward joint changes, the types of use our hands have seen over the years, and any trauma to the hand (for example, previous fractures) that has occurred. With hand overuse, the cartilage (the cover on the end of the bones that provides a nice smooth surface on which bones in contact with each other glide) deteriorates.



The most common osteoarthritic joint changes in the hand occur at the tips of the fingers by the finger nails (Heberden's nodes) and in the middle joints of the fingers (Bouchard's nodes). The joints may initially feel painful, hot, and swollen; then typically the pain may decrease but nodules of calcification remain. The bones may begin to deviate to different angles or become "floppy"; or the tip of the fingers may droop and become painful and unstable.

Arthritis at the base of the thumb (basal joint or CMC (carpometacarpal) joint) is also very common. Pinch activity places stress on this joint and eventually it becomes quite painful to perform any type of hand activity. The Comfort Cool neoprene thumb splint was designed specifically for CMC arthritis. It is

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comfortable, easy to apply, and provides support to the thumb joint while allowing some flexibility during activity.

Once a joint has changed its appearance, it will not change back. It is necessary to provide an unstable joint with stability through splinting or through surgery, depending upon the severity. The goals of therapy are to prevent or slow down further joint changes and to control the swelling and pain that is currently present.

## Rheumatoid Arthritis (RA)

Rheumatoid Arthritis is caused by an immune disorder in which the body begins to attack its own joints. Multiple joints become hot, tender, swollen and painful. It becomes quite difficult to perform all activity. Joint changes that occur in the hand tend to follow a typical pattern. The large knuckles of the hand tend to drift toward the small finger or droop. The middle joint of the fingers tend to hyperextend (swan neck deformity) or become contracted in a bent position (boutonnière deformity). The back of the wrist often becomes swollen with a thick, viscous fluid (synovitis).

Once again, the goals of therapy are to prevent further joint instability through the use of splinting, joint protection and energy conservation methods. Therapy modalities may be used to reduce swelling and pain.

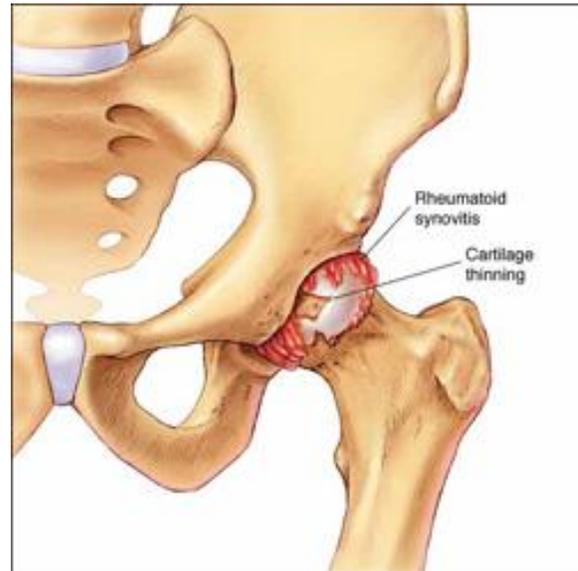
## **How Can I Know if I Have Arthritis?**

Early diagnosis and treatment tailored to an individual's needs are crucial in slowing or preventing damage to joints. Only a physician can determine if you have arthritis and what type it is. Arthritis is diagnosed based on the overall pattern of symptoms, medical history, physical examination, x-rays and lab tests.

Your doctor will start by taking your history and doing a complete physical examination. Your doctor may observe you while standing, sitting, lying down, etc. and watch how well you walk around the room. He or she will also examine your hip and knee carefully, looking and feeling for details that offer clues about your condition. He or she will ask you where it hurts and how long you've had the pain. He or she will want to know if you fell or suffered any other trauma to the hip.

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The location of the pain is often a tip-off of the condition you have. The source is not always what you would think. Pain that truly comes from a hip problem is often located in the thigh or groin area. In other cases, hip pain may be a signal of a problem elsewhere in the body. If the pain is more in the buttocks than the hip, for example, it may actually be the result of a problem in the back. And, while hip pain that travels down the leg may be the result of inflammation in the hip joint, it can also be a sign of sciatica (a condition usually caused by a pinched nerve in the back). If the pain travels below the knee, it could be a sign of disease in the nerves or blood vessels. In women, pain in the hip or upper leg may stem from several other causes, including tumors of the uterus or ovaries, endometriosis (the presence of uterine tissue elsewhere in the body), or pelvic inflammatory disease (infection in the reproductive organs).



Your doctor will also observe your posture while standing, sitting, and lying down, and watch how well you walk around the room. He'll check for bruises, discoloration, areas of muscle wasting, and any curvature of the back. These observations all offer clues about your condition.

He may order x-rays to rule out a fracture or detect osteoarthritis. A magnetic resonance imaging (MRI) scan can confirm the presence of a vascular necrosis or soft tissue damage. If he thinks you have an inflammatory condition or infection, he may order blood tests.

## **What Are the Treatment Options for Arthritis?**

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## Arthritis Tips

- Use heat to loosen up tight or stiff joints.
- Use cold packs to control swelling or the pain of "hot joints".
- Use splints at rest to hold joints in the best anatomical position possible.
- Use splints during hand use that allow some flexibility but support the most affected joints.
- Use joint protection and energy conservation techniques.
- Use adaptive devices ("gadgets") to ease the stress on joints.
- Keep all unaffected joints as loose as possible.
- Begin exercising the affected joints as soon as pain and swelling allow.