Osteoarthritis

arthritis-uk.org

Arthritis UK

We are Arthritis UK

We're the 10 million adults, young people and children living with arthritis. We're the carers, researchers and healthcare professionals. The families and the friends. All united by one powerful vision: a future free from arthritis. So that one day, no one will have to live with the physical, emotional and practical challenges that arthritis brings.

There are many different types of arthritis. And we understand that every day is different. What's more, what works for one person may not help another. That's why our trusted information blends the latest research and expert advice with a range of lived experiences. In this way, we aim to give you everything you need to know about your condition, the treatments available and the many options you can try, so that you can make better-informed choices to suit your needs.

We're always happy to hear from you whether it's with feedback on our information, to share your story, or just to find out more about the work of Arthritis UK. **Contact us at healthinfo@arthritis-uk.org**

What's inside?

Bobby's Story

The problems with my knees started in 2015 – a gradual incline in pain and decline in mobility.

2 years later, I went to the GP, only to be told it was my age. It eventually got to the point where my knees felt like someone was hitting them with a mash hammer, so I went back to the doctor who basically said, 'You've got osteoarthritis and you need surgery.' They didn't give me any information. I didn't look into it myself because I just thought if information was available, surely they would have let me have it.

Although the diagnosis did make me feel there was light at the end of the tunnel, now we knew what it was, there was a 2-year wait for a consultant appointment. Then I had to go on the waiting list for surgery.

Arthritis was painful in the knees but also painful in the head, playing havoc with my thoughts and my life. I couldn't do things I needed to do at work, like climb ladders, and my family suffered because I wasn't myself. The mental impact is phenomenal. You feel like a burden when you can't do things. I'd always been a happy-go-lucky guy and here I was all doom and gloom, on antidepressants and worried about my future.

After a long, painful and frustrating wait, I had my first knee replacement in 2023 and my second the following year. I recovered well. Having my mobility back was amazing. It really helped that, although I had to give up football and running, which I loved, I still carried on exercising, hooking a resistance band around my foot and doing bends.

Arthritis is tough but you don't have to go it alone. Finding people who understand what you're going through is really important for mental health. The walking football, set up by Arthritis UK, has been great because everyone is so supportive. Being active is good for your physical health and the camaraderie, the banter, really lifts your mind.

I'd say to anyone living with the pain of arthritis, I know it's hard, but a positive attitude and positive lifestyle are really important.

When I look back, I wish I could have told myself to hang in there. I know that it's easier said than done but try to resist letting arthritis drag you into the doom and gloom. Arthritis doesn't have to be the end of your story.

What is osteoarthritis?

Osteoarthritis is a very common condition of the joints. It tends to develop in people over the age of 45 and commonly affects the hips, knees, spine, hand joints and big toe.

Osteoarthritis develops when the joint's ability to repair itself becomes less effective. This can lead to changes that make the joint sensitive and painful. This doesn't necessarily mean that your condition will keep getting worse. Keeping active will help to keep your joints healthy.

A joint is where 2 or more bones meet. In a healthy joint, a coating of tough but smooth and slippery tissue, called cartilage, covers the surface of the bones and helps them to move smoothly against each other.

When a joint develops osteoarthritis, some of the cartilage thins and the surface becomes less smooth. All of the tissues inside the joint become more active than usual and various changes can occur:

- Bony growths (called osteophytes) may form at the joints and can sometimes restrict movement or rub against other tissues. In some joints, especially the finger joints, these may be visible as firm, knobbly swellings.
- The lining of the joint capsule, called the synovium, may thicken and produce more fluid than normal, causing the joint to swell.
- Tissues around the joint that help to support it may stretch over time so that the joint becomes less stable.

See the diagrams on page 8.

Joints can sometimes continue to work well even though the structure may be altered. Almost all of us will have some changes in our joints as we get older, but we may not even be aware of the changes.

But sometimes changes in a joint mean that it doesn't move as smoothly as it should. It may feel stiff and there may be visible swelling. If the cartilage becomes very thin, the bones may begin to rub against each other, which can be very painful.

Figure 1. A healthy joint

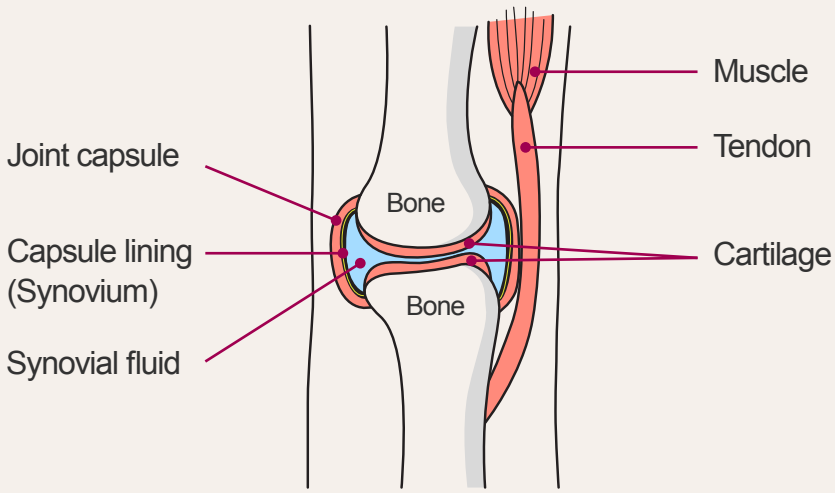
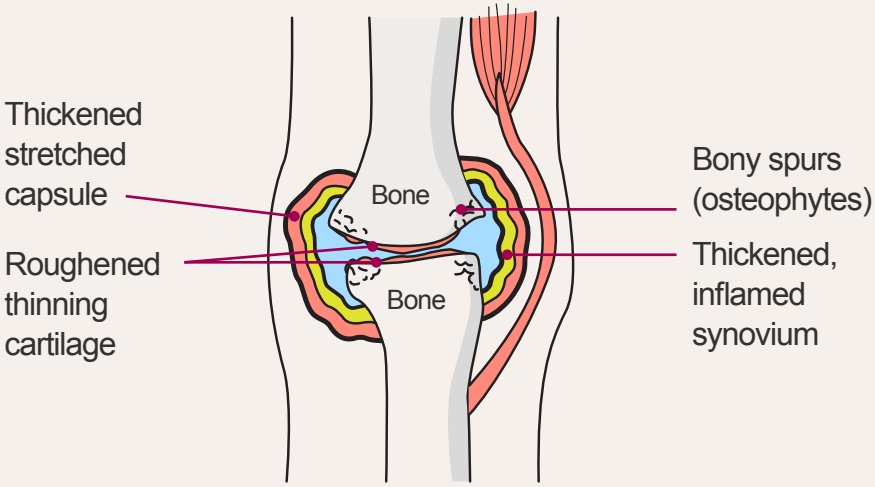


Figure 2. A joint affected by osteoarthritis



Symptoms

The main symptoms of osteoarthritis are pain and stiffness in the affected joints. Most people find that their symptoms vary over time and they can often improve with the right treatment and self-management.

You may have times when your symptoms are worse for a few weeks or months – this is called a flare-up – followed by periods when they improve. Or you may find that your symptoms vary depending on what you're doing. Your joints may feel stiff after rest, but this usually wears off once you get moving.

The affected joint may sometimes be swollen. The swelling may be:

- hard and knobbly, especially in the finger joints, caused by the growth of extra bone
- soft, caused by thickening of the joint lining and extra fluid inside the joint capsule.

The joint may not move as freely or as far as usual, and it may make grating or cracking sounds (called crepitus) as you move it. However, crepitus can also occur in healthy joints and isn't always linked to pain or stiffness.

Sometimes the muscles around the joint may become thin or weaker. The joint may give way at times because your muscles have weakened or because the joint structure has become less stable. Exercises to strengthen the muscles can help to prevent this.

You should speak to your GP or a First Contact Practitioner, such as a physiotherapist or advanced practice nurse, if you have joint pain, stiffness or swelling.

This is especially important if:

- it's interfering with your daily routine
- it doesn't seem to be related to your activities or unusual strain
- you have other symptoms such as feeling generally unwell.

Getting a diagnosis early will allow you to discuss treatment options and give you the best chance of managing your condition well.

Causes

We don’t always know why someone develops osteoarthritis, but we do know that osteoarthritis is not simply ‘wear and tear’ and that a number of factors can be involved.

Some of the factors are explained below.

Age

Osteoarthritis usually starts from the mid-40s onwards, though younger people may develop it. Older people may be more likely to develop the condition due to other changes that often happen as we get older, such as weakening muscles, weight gain, and slower and less effective healing.

Gender

For most joints, especially the knees and hands, osteoarthritis is more common in women, who may also have worse symptoms.

Being overweight

Carrying extra weight can be a factor. This isn’t simply about the load the joints have to support. There’s evidence that fatty tissue contains chemicals that can increase inflammation, which may make pain worse.

Joint injury

Normal activity and exercise don’t cause osteoarthritis, but very hard or repetitive activity or physically demanding jobs may increase the risk.

A major injury or operation on a joint could also increase the risk of osteoarthritis later in life. Exercising too soon after an injury without giving it time to heal properly can also be a factor.

Joint shape and structure

Some people are born with or develop joints that are slightly unusual in shape. This can affect the way the joint moves and you may be more likely to develop osteoarthritis earlier in life or have worse symptoms as a result.

Genetic factors

The genes we inherit can affect our risk of getting osteoarthritis in the hand, knee or hip. One common form of hand osteoarthritis that often runs in families is nodal osteoarthritis. This affects mainly women from their 40s or 50s onwards and causes firm, knobbly swellings at several of the finger joints.

Some very rare forms of osteoarthritis are linked to mutations of genes that affect a protein called collagen, which is found in cartilage. These mutations may cause osteoarthritis to develop in many joints at an earlier age than usual.

Other types of joint disease

Sometimes osteoarthritis is a result of damage caused by other kinds of joint disease. Gout, for example, can lead to lasting changes in the joint if it isn't treated effectively.

What else might affect osteoarthritis?

Two factors that may affect the symptoms of osteoarthritis, but aren't a direct cause of it, are the weather and diet.

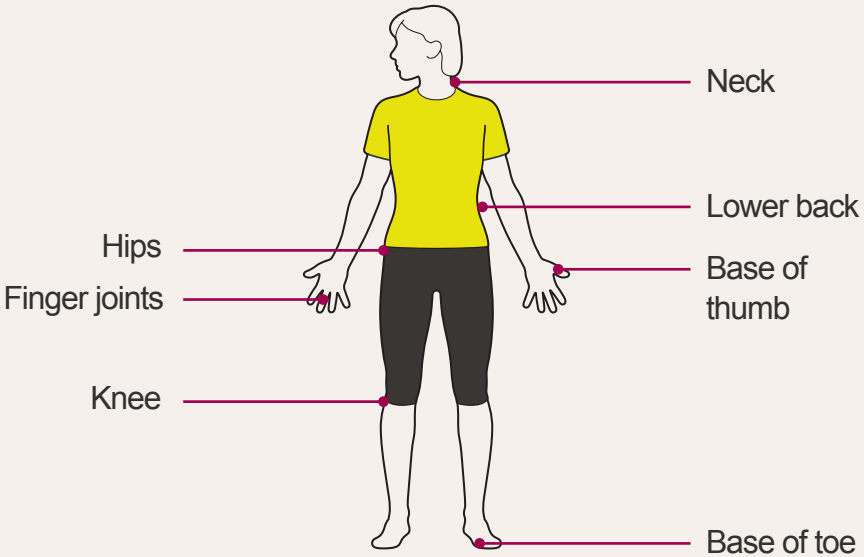
- **Weather:** Many people find that changes in the weather make their joint pain worse, especially when the atmospheric pressure is falling – for example, just before it rains.
- **Diet:** Some people find that certain foods seem to affect their symptoms. A healthy, balanced diet may help reduce the medication you need.

Symptoms of osteoarthritis may vary depending on what you've been doing, or they may vary for no obvious reason.

Which joints are affected?

Any joint can develop osteoarthritis, but symptoms most often affect the knees, hips, hands, spine and big toes.

Figure 3. The joints most often affected by osteoarthritis



The knee

The knee is the joint that is most commonly affected by osteoarthritis. It can affect the cartilage at the ends of the thigh and shin bones or the cartilage behind the kneecap. It often affects both knees.

The hip

Osteoarthritis of the hip is also very common and can affect either one or both hips. It is equally common in men and women. The hip joint is a ball-and-socket joint which gives a wide range of movement, as well as bearing a lot of your weight.

The hand and wrist

Osteoarthritis of the hands usually occurs as part of the condition nodal osteoarthritis. This mainly affects women and often starts in your 40s or 50s, around the time of the menopause.

It usually affects the base of your thumb and the joints at the ends of your fingers, although other finger joints can also be affected. The pain may improve after several years, though the joints may still be stiff.

The back and neck

The bones of your spine and the discs in between are often affected by changes that are very similar to osteoarthritis. In the spine, these changes are often referred to as spondylosis. These changes are very common, but they are not the most common cause of back or neck pain.

The foot and ankle

Osteoarthritis of the foot generally affects the joint where the big toe joins the foot. However, osteoarthritis of the mid-foot is also quite common. The ankle is less commonly affected.

The shoulder

The shoulder consists of 2 joints:

- a ball-and-socket joint where the upper arm meets the shoulder blade. This is called the glenohumeral joint and has a very wide range of movement.
- a smaller joint where the collarbone meets the top of the shoulder blade. This is called the acromioclavicular joint and has a much smaller range of movement.

Osteoarthritis can affect either joint but is more likely in the acromioclavicular joint.

The elbow

The elbow joint is one of the least commonly affected by osteoarthritis. It may follow either a single injury or fracture or a number of more minor injuries to the elbow, often as a result of a job that puts unusual strain on the elbow.

The jaw

The jaw, or temporomandibular joint, is one of the most frequently used joints in the body. Osteoarthritis of the jaw may start at an earlier age than in many other joints.

Diagnosis

It's important to get an accurate diagnosis if you think you have arthritis. There are many different types of arthritis and some need very different treatment.

The diagnosis of osteoarthritis is usually based on:

- your symptoms and how they developed
- the physical signs that your doctor finds when examining your joints.

Your history

Your GP will ask about your symptoms, how and when they started, and anything that makes your symptoms better or worse. Tell your doctor about any pain, swelling or stiffness, how your symptoms have changed over time, and how your work and daily life are affected.

You should also mention any other medical conditions you have and any medicines you're taking.

Physical examination

Your doctor will examine your joints, checking for:

- tenderness over the joint
- creaking or grating of the joint – known as crepitus
- bony swelling
- excess fluid
- restricted movement
- joint instability
- weakness or thinning of the muscles that support the joint.

Will I need any tests?

Tests are not normally needed to diagnose osteoarthritis. However, they can sometimes help to rule out other conditions that might be causing your symptoms.

There's no blood test for osteoarthritis. But your doctor may suggest blood tests if there's doubt about the diagnosis – for example, if there's a chance you might have a different type of arthritis.

X-rays aren't usually helpful in diagnosing osteoarthritis or deciding on a treatment plan.

In some cases, an MRI (magnetic resonance imaging) scan can be helpful. This uses high-frequency radio waves to build up pictures of the soft tissues. It may also show changes in the bone that can't be seen on a standard X-ray. MRI is most useful to identify other possible joint or bone problems that could be causing your symptoms.

Should I see a specialist?

It's unlikely that you'll need to see a specialist, although your GP may refer you if there's some doubt about the diagnosis or if they think other problems might be affecting your joints.

Your doctor may refer you if specialist help is needed to manage your osteoarthritis. This might be for physiotherapy, podiatry for foot problems, or occupational therapy, which can help if you're having difficulty with everyday activities.

If you're diagnosed with osteoarthritis, your GP should offer you a regular review if any of the following apply:

- your joint pain is causing problems with everyday activities
- you take tablets for pain relief on a regular basis

- you have other health problems besides your arthritis
- you have osteoarthritis in more than one joint.

If your arthritis is causing long-term problems, your GP may refer you to a pain management programme.

If you have tried a number of treatment options and you're still struggling, then your doctor may refer you to an orthopaedic surgeon to consider whether a joint replacement or other surgery might be right for you.

How will osteoarthritis affect me?

Osteoarthritis affects everyone differently. Symptoms can vary a great deal over time, but there's a lot you can do to help manage them.

Osteoarthritis can sometimes develop over just a year or 2 and cause a lot of changes to a joint. But more often, it's a slow process that results in fairly small changes.

The changes within a joint aren't very helpful in predicting how much pain you'll have. Some people have a lot of pain and mobility problems from quite small changes, while others have few, if any, symptoms from quite major changes.

You may find some of your daily activities more difficult depending on which joints are affected. For example:

- Osteoarthritis of the spine and weight-bearing joints (hips, knees, ankles) may cause problems with walking, climbing stairs or getting out of a chair.
- In the hands, osteoarthritis could cause problems with tasks that require a firm grip or fine finger movements, such as writing or doing up buttons.
- If the shoulder or elbow are affected you're most likely to have trouble with lifting (especially above shoulder height) or carrying weight.

Osteoarthritis can also affect work, hobbies and social activities, but support and practical changes can often help.

Pain from osteoarthritis can also make it difficult to get a good night's sleep, which may affect your energy levels and mood.

Some people with osteoarthritis may also develop crystals in their joints. These can sometimes cause sudden, severe pain and swelling. This is known as crystal arthritis and includes conditions such as gout and acute CPP crystal arthritis. You can find out more about these conditions at our website: **arthritis-uk.org**

Managing osteoarthritis symptoms

Although there's no cure for osteoarthritis yet, there are treatments and lifestyle changes that can provide relief from the symptoms and allow you to get on with your life.

Your healthcare team can help you to find the treatment, or combination of treatments, that works best for you. These might include:

- lifestyle changes – such as becoming more active or losing weight
- pain relief medications
- physical therapies – for example, applying warmth or using splints or supports
- surgery
- supplements and complementary treatments.

We'll look at each of these options over the following pages.

Physical activity

Many people worry that exercise will increase their pain and may harm their joints, but you shouldn't be afraid to use your joints – they are meant to move.

While resting painful joints may make them feel more comfortable at first, too much rest can increase stiffness and weaken the muscles.

Physical activity can:

- protect your joints by strengthening the muscles that support them

- help to control pain by releasing the body's own natural pain relief (called endorphins)
- reduce stress levels
- help you to get a better night's sleep
- help you maintain a healthy weight – along with changes to your diet.

If pain makes it difficult to get started with exercise, you could try taking paracetamol beforehand. And if you feel you've overdone things a bit, try applying warmth to the painful joint. Or if it's swollen, applying an ice pack may help.

If you haven't done much exercise for a while you might want to get some advice from a physiotherapist. They'll be able to help you work out a programme that works for you. But you don't have to see a physiotherapist to become more active. The information that follows should help. The most important thing is to build up gradually.

The key to becoming more active is to find something you enjoy so you'll be more likely to keep it up. Another useful tip is to find ways of building activity into your everyday life – such as using the stairs a bit more often or doing some stretches while waiting for the kettle to boil.

There are 3 types of exercise that you should try to include:

Range of movement exercises

These are good for helping to ease stiffness and maintain flexibility. They involve taking joints through a range of movement that feels comfortable and then smoothly and gently easing them just a little bit further.

Strengthening exercises

These are exercises done using some form of resistance to strengthen the muscles that move and support your joints. You could use light weights or a resistance band. Exercising in water, or even supporting your own bodyweight, can also provide resistance.

Aerobic exercise

Aerobic exercise means any physical activity that raises your heart rate and gets you breathing a bit more heavily. This type of exercise burns off calories so it can help, along with changes to your diet, if you need to lose a bit of weight.

Aerobic exercise can also improve your sleep and energy levels, reduce pain and will be good for your general health. Adults should aim for at least **150 minutes (2 and a half hours) of moderate-intensity activity each week,** together with strengthening exercises on 2 or more days

Walking, cycling and swimming are all excellent forms of exercise for people with arthritis. Or you could try an exercise bike or cross-trainer or perhaps a dance class.

Water-based exercise can be both aerobic and strengthening. For example, walking laps in the shallow end of a swimming pool is great for strengthening leg muscles. Your physiotherapist will be able to suggest other water-based exercises that you could do at your local swimming pool.

You can find out more about exercising with arthritis at: **arthritis-uk.org/information-and-support/living-with-arthritis/health-and-wellbeing/exercising-with-arthritis**

Weight loss and diet

If you're overweight, then losing even a small amount of weight can make a big difference to your symptoms. It will reduce the load on joints such as the hips and knees, as well as being good for your overall health. Keeping to a healthy weight can also reduce inflammation and therefore pain.

Being physically active, alongside eating a healthy, balanced diet, can help you reach and maintain a healthy weight. Cut down on the number of calories you get from high-fat and sugary foods. Make sure you're including all the key food groups in your diet and not missing out on essential nutrients.

There isn't a specific diet that's been proved to help with osteoarthritis, though a Mediterranean-style diet is probably best for overall health. Be cautious about any diet that claims to cure arthritis or suggests completely cutting out a particular food group.

If you think a certain food might be making your symptoms worse then it's best to test this by not eating the food for a few weeks and then reintroducing it to see if you notice a difference. You may find it helpful to speak to a dietitian about this. You can ask your GP to refer you, or you can find a dietitian through the British Dietetic Association (BDA).

Some research suggests that oily fish, or oils produced from fish, may be helpful for some types of arthritis. The research mainly relates to rheumatoid arthritis rather than osteoarthritis but increasing your intake of oily fish or taking a supplement might be worth trying if you're interested in using diet to manage your condition.

Find out more about diet and arthritis at: **arthritis-uk.org/information-and-support/living-with-arthritis/health-and-wellbeing/eating-well-with-arthritis**

Managing pain

Warmth and cold

Applying warmth to a painful joint can help to ease discomfort. You could use a hot-water bottle, wrapped in a towel to protect your skin, or a wheat-bag that you heat up in a microwave. Or you could just put your hands or feet in a bowl of warm water for a few minutes whenever you get the chance.

If you can do some mobility exercises at the same time, this can help to reduce stiffness and improve the range of movement in your joints.

If your joints are swollen you may find an ice pack helps to reduce swelling and discomfort. Wrap the ice pack in a towel to protect your skin. Ice can be applied for up to 20 to 30 minutes every couple of hours.

Check your skin during heat or cold therapy, especially if you've had problems with your nerves (called neuropathy).

Splints and other supports

There's a range of different splints, braces and supports available to buy for painful joints. These can be particularly helpful if osteoarthritis has affected the alignment of a joint.

If you're not sure which type to buy, you could speak to an occupational therapist or physiotherapist first.

It's not usually recommended that you wear a splint or support

all the time, as this could lead to weakening of the muscles. Do some gentle exercises when you remove your splint or support to help keep your joints mobile.

Footwear

Choosing comfortable, supportive shoes can make a difference not only to your feet, but also to other weight-bearing joints including the knees, hips and spinal joints. In general, the ideal shoe would have a thick but soft sole, soft uppers, and plenty of room at the toes and the ball of the foot.

If you have particular problems with your feet, then it's worth seeing a podiatrist for advice. For some foot problems, your doctor or podiatrist may recommend an insole that helps to partly shift the load to parts of the foot that aren't affected by osteoarthritis.

Walking aids

Some people find a walking stick helpful. If your leg sometimes gives way then a stick may help you feel less afraid of falling. When held in the opposite hand, it can also help to reduce pressure on a painful knee or hip.

It's important that a walking stick is adjusted correctly for your height – a good supplier should do this for you. If you have arthritis in your hands, check that the handle feels comfortable.

Posture

Keeping the same posture for long periods – whether at work, driving or watching TV – can mean that your joints, or parts of your joints, are under more strain than usual. Moving and changing posture regularly can help to ease strain on your joints.

Pacing yourself

If your pain varies from day to day, it can be tempting to take on too much on your good days, which can lead to more pain afterwards.

Learn to pace yourself. If there are jobs that often increase your pain, try to break them down into smaller chunks, allow time for rest breaks, and alternate with jobs that you find easier. Or think about other ways of doing a job that would cause less pain.

"I'm often tempted to do as much as I can when I'm having a good day. But I find it's better in the long run to pace myself."

An occupational therapist or physiotherapist will be able to offer advice on pacing yourself and on reducing the strain on your joints – whether the jobs you find difficult are at work, at home or in your leisure interests. You can ask your GP to refer you if you think this might be helpful for you.

Find out more about managing pain at: **arthritis-uk.org/information-and-support/understanding-arthritis/manage-arthritis-symptoms/managing-arthritis-pain**

Pain medications

The drugs usually taken for osteoarthritis won't affect the condition itself. But they can help to ease the symptoms of pain and stiffness and allow you to maintain or increase your activity level.

NSAID creams, gels and patches

Non-steroidal anti-inflammatory drugs (NSAIDs) are available as creams, gels or patches that you apply to the skin. Ibuprofen and diclofenac gels are available over the counter at pharmacies and supermarkets. Others, such as ketoprofen, require a prescription.

Creams, gels or patches can work well for some joints, especially the knees and hands. They are very safe and are recommended as the first form of drug treatment to try. But they may not work as well for joints such as the hips, which lie deeper below the skin.

Capsaicin cream

Capsaicin cream is made from the pepper plant (capsicum) and is an effective painkiller. Like NSAID creams and gels, it's particularly useful for knee and hand osteoarthritis. It's only available on prescription and unfortunately there have been shortages recently.

The pain-relieving effect starts after several days of regular use and you should try it for at least 2 weeks before deciding if it's helped.

Most people feel a warming or burning sensation when they first use capsaicin, but this generally wears off after several days. As with NSAID creams, gels or patches, capsaicin is very safe.

Non-steroidal anti-inflammatory drugs (NSAIDs)

NSAID tablets are generally stronger pain-relievers than paracetamol.

The most common is ibuprofen, which is widely available over the counter in pharmacies and supermarkets.

You can try these for 5 to 10 days – if they haven't helped after this time, then they're unlikely to. If they do help but you need to take them for longer, then check with your doctor whether you might also need tablets to protect your stomach from possible side effects.

If you need them, your doctor may prescribe:

- higher doses of ibuprofen
- stronger NSAIDs such as naproxen or diclofenac
- a newer type of NSAID, such as celecoxib or etoricoxib, designed to reduce the risk of side effects such as ulcers and bleeding in the gut.

If your doctor prescribes an NSAID, they'll usually prescribe a drug called a proton pump inhibitor (PPI) as well to help protect the gut. Examples of PPIs are lansoprazole and omeprazole.

Paracetamol

Paracetamol won't usually be prescribed for osteoarthritis except for occasional and short-term use or when other drug treatments aren't suitable or haven't worked for you. But it is readily available over the counter at pharmacies and supermarkets.

It can sometimes be helpful to take a dose of paracetamol shortly before you start an exercise session to allow you to get the most from the activity.

If you do find paracetamol helps, then be careful not to take more than the dose stated on the packaging. And bear in mind that cold and flu remedies often contain paracetamol as well.

Medication tips

- Make sure you know how much you should be taking, how often and when. Some people will need to take medicines regularly, while others will only need them from time to time. Are your medicines best taken with or after meals, or on an empty stomach?
- Ask if the medicine will start to work straight away or if you'll need to take it for a while before you start to notice the benefit.
- Ask about any possible side effects and make sure you know what to do if you do have side effects.
- If you're pregnant or thinking of having a baby, or if you want to breastfeed, discuss this with your doctor in case you need to stop or change your medication.
- If you're prescribed a new medicine, ask whether it might interact with anything else – including other drugs, alcohol, herbal medicines or food supplements.
- Keep a record of the drugs you're taking. Keep this with you in case you need treatment from someone other than your usual doctor. You could keep a copy of your prescription in your wallet or on your phone.

Stronger pain relief

Occasionally, your doctor may suggest other combinations of drugs – for example, using paracetamol in combination with an NSAID. But you should not take ibuprofen as well as a prescription NSAID.

Stronger painkillers such as co-codamol, which contains paracetamol and codeine, are normally only prescribed for very short periods, because opioid drugs such as codeine tend to have more side effects, especially in the age group most often affected by osteoarthritis.

Steroid injections

Steroid injections may be given for very painful osteoarthritis, or for sudden, severe pain caused by crystals in the joint.

The injection often starts to work within a day or so, and may improve pain for several weeks or even months, especially in your knee or thumb.

Steroid injections cannot be given on a regular basis as there's evidence that the benefit may last for a shorter time after each injection.

Injections into the hip joint are usually done under X-ray to allow for accurate placement. This means you would need to be referred to an orthopaedic or radiology department and would be placed on a waiting list for treatment.

For more information on steroid injections go to: **arthritis-uk.org/information-and-support/understanding-arthritis/arthritis-treatments/drugs/steroid-injections**

Other pain relief treatments

Transcutaneous electrical nerve stimulation (TENS)

TENS machines send electrical pulses to your nerve endings through pads placed on your skin. This produces a tingling sensation and is thought to relieve pain by altering pain signals sent to the brain.

Research evidence on the effectiveness of TENS is mixed, but some people do find it helpful.

TENS isn't available on the NHS, but machines are available to buy from pharmacies and other major stores. A physiotherapist will be able to advise on the types of TENS machine available and how to use them.

Hyaluronic acid injections

Hyaluronic acid, or hyaluronan, is a lubricant that's found naturally in the fluid in your joints. Injections of hyaluronic acid have sometimes been used as a treatment for osteoarthritis of the knee.

The treatment isn't available on the NHS because research evidence on its long-term effectiveness is mixed. However, the treatment may be available privately or sometimes as part of a clinical research trial.

Surgery

Most people with osteoarthritis won't need surgery. But if your symptoms are having a big impact on your quality of life, then your doctor may discuss surgery with you. This is usually only considered once you've tried all other suitable treatments.

Many thousands of hip and knee replacements are carried out each year for osteoarthritis, and other joint replacements are also becoming more common. But there are other surgical options besides joint replacement.

For some smaller joints, fusion can be very successful. This means that the bones in a joint are fixed together surgically – this prevents movement of the joint, and therefore pain. Although the loss of movement may seem strange at first, fusion often gives good results.

Sometimes keyhole surgery techniques may be used to wash out loose fragments of bone and other tissue from your knee – this is called arthroscopic lavage. This isn't available on the NHS but may be offered if you're treated privately.

If you're thinking about having surgery, take some time to find out what you can expect from it, what the possible risks are, and how you can best prepare for your operation and plan ahead for your recovery. Your surgical team will talk you through everything but don't hesitate to ask if you're unsure about any aspect of the planned surgery.

Supplements and complementary treatments

Taking supplements

People with arthritis often try a range of supplements including herbal remedies, vitamins, minerals and dietary supplements.

In most cases, there's limited research evidence to show that they improve arthritis or its symptoms, but many people feel they do benefit from them.

Before you start taking any supplement:

- Do some research on the supplement you plan to take.
- Bear in mind that everyone's different – even if somebody you know has found something helpful, it doesn't mean it will work for you.
- Check with your doctor or pharmacist that it is safe to take with your prescribed or over-the-counter medicines.
- Find out whether there are any possible side effects with the supplement or medicine you're thinking of trying. If you do develop any new symptoms, see your doctor.
- Keep a diary of how you feel – it will be easier to tell if the supplement(s) are having an effect.
- Buy from reputable manufacturers.
- Think about the cost – taking supplements can be expensive in the long term.

Glucosamine

Glucosamine is found naturally in the body in structures such as ligaments, tendons and cartilage. Supplements are usually produced from crab, lobster or prawn shells, although shellfish-free types are available.

Research hasn't consistently shown that glucosamine improves osteoarthritis symptoms, so it isn't routinely recommended. Most trials have used a dose of 500 mg three times a day, and the evidence seems to suggest glucosamine sulphate may be more effective than glucosamine hydrochloride.

It doesn't help the pain straight away – you'll need to take it for a couple of months before you can judge whether it's helped. If it hasn't helped after 2 months, then it's unlikely that it will.

Chondroitin

Chondroitin is found naturally in cartilage and is available as a dietary supplement, often combined with glucosamine. Research suggests it may provide modest relief from pain and stiffness for some people with osteoarthritis, particularly of the knee, but the evidence is mixed and benefits appear to be small.

If you decide to try it, you'll probably need to take it for at least 2 months before you can tell whether it's helping. If you take blood-thinning medicines, check with your doctor or pharmacist before trying it.

Fish oils

Fish body oil and fish liver oil are rich in omega-3 fatty acids. There is some evidence that fish body oil can help improve symptoms of rheumatoid arthritis. However, there is much less evidence that fish oils improve symptoms of osteoarthritis.

Fish liver oils can contain high levels of vitamin A, so it's important not to take more than the recommended dose. Too much vitamin A can be harmful, particularly during pregnancy. If you're taking blood-thinning medicines, check with your doctor or pharmacist before taking fish oil supplements.

Complementary treatments

There are a number of complementary treatments available, such as acupuncture and the Alexander technique, and they can generally be used alongside prescribed or over-the-counter medicines.

Some people find complementary treatments help to ease symptoms such as pain and stiffness, as well as helping to manage some of the unwanted effects of taking medication. Some therapies, such as relaxation techniques, can improve your general wellbeing.

Some of the most popular therapies are listed here:

- **Acupuncture** claims to restore the natural balance of health by inserting fine needles into specific points in the body. Some people find acupuncture helpful, but research hasn't shown consistent benefits for osteoarthritis. It isn't available on the NHS for osteoarthritis.
- **The Alexander technique** teaches you to be more aware of your posture and ways of moving with less physical effort. There's evidence that it can be effective for low back pain, though not specifically for osteoarthritis.
- **Aromatherapy** uses oils obtained from plants to promote health and wellbeing. The oils can be vaporised, inhaled, used in baths or a burner, or as part of an aromatherapy massage. There's no research evidence that aromatherapy is effective for the symptoms of osteoarthritis, but some people may find there are other benefits such as aiding relaxation.

- **Massage** can loosen stiff muscles, ease tension, improve muscle tone, and increase the flow of blood. A good massage can leave you feeling relaxed and cared for, though there's only a little evidence that it's effective in treating the symptoms of osteoarthritis.
- **Osteopathy and chiropractic** involve manually adjusting the alignment of the body and applying pressure to the soft tissues of the body. The aim is to correct structural and mechanical faults, improve mobility, relieve pain and allow the body to heal itself

  There's some research evidence for the effectiveness of chiropractic for spinal osteoarthritis but not for other types of osteoarthritis. There's no specific research evidence available on whether osteopathy is effective for osteoarthritis.
- **Tai chi** is a non-combat martial art and 'mind–body' exercise designed to calm the mind and promote self-healing through sequences of slow, graceful movements. There's good evidence that t'ai chi may ease osteoarthritis symptoms, particularly in the knee.

Finding a complementary therapist

Most therapies are not routinely available on the NHS, but check with your GP. You will probably need to pay for therapies yourself unless you have private health insurance that covers them. And they can be expensive so it's worth doing some research.

Before you make any commitment:

- Ask what evidence there is to back up any claims made for the therapy.
- Ask how much treatment will cost, and how many sessions you might need.
- Make sure the therapist is a member of a professional body, has insurance, and is trained and experienced in treating people with osteoarthritis.
- Make sure the therapist takes a full medical history from you. Tell them about any other conditions you have and any prescription or over-the-counter medicines you're taking. Check with your doctor first if the therapist suggests stopping any of your medication.

Thanks to the small changes I've made, I feel I'm back in control.

Everyday life

Managing at home

Depending on which joints are causing you problems, there are lots of aids and adaptations to help you around the home, and some fairly simple changes can make a big difference.

In the kitchen, for instance:

- Rearrange cupboards and drawers so the things you use the most are nearby.
- Switch to lightweight pans, mugs or kettle.
- Look for equipment with easy-to-use buttons and switches.
- Change from a manual to an electric tin opener, or use a cap gripper. Choose knives and peelers with padded handles.
- Have a stool in the kitchen so you can sit while you're preparing food, or a trolley for moving heavy items across the room.
- Have twist-top taps changed for the easy-to-use lever type.

If you're not sure what's available or how you might be able to reduce the strain on your joints, an occupational therapist will be able to advise you. Your doctor can refer you to an occupational therapist.

You may be able to get help with the costs of obtaining aids or having adaptations to your home. Eligibility varies depending on whether you live in England, Wales, Scotland or Northern Ireland. Wherever you live, the first step is to ask your local authority for a needs assessment.

Public transport

Most buses, trains and coaches have accessibility features to help people with mobility problems.

Information is available on the National Rail website about station accessibility, train and station facilities, and assistance options. Transport for London offers similar information on their website and has produced a guide to avoiding stairs on the London Tube network.

Other local authorities and transport providers produce similar guides to accessible bus, train and minicab services, and some run their own transport schemes.

In work or education

Most people with arthritis are able to continue in their jobs, although you may need to make some changes to your working environment, especially if you have a physically demanding job. Struggling on if you're having difficulties could make your arthritis symptoms worse.

Simple changes to the way you work can help protect your joints and conserve energy, including:

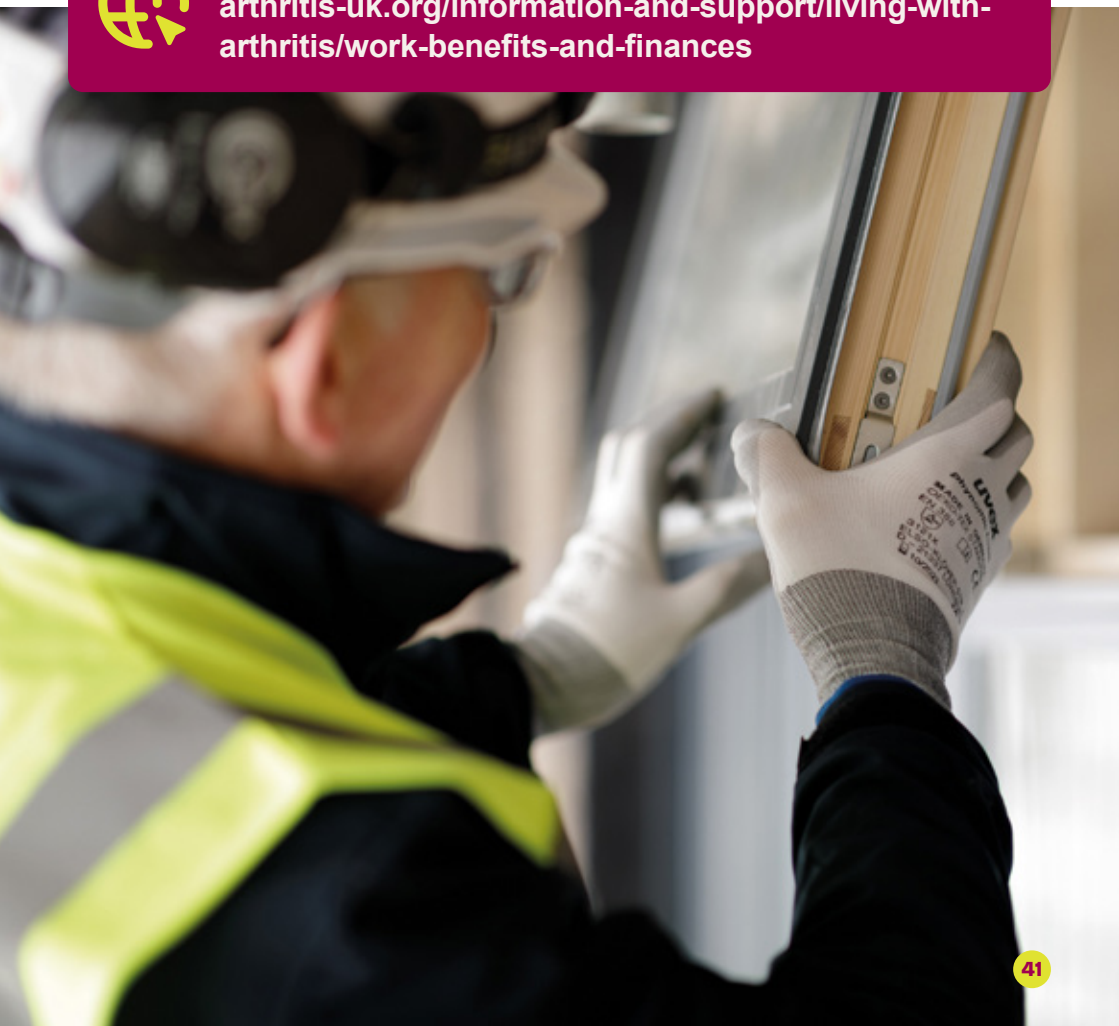
- organising your work – rearranging your work area, using computer equipment correctly, taking regular breaks, relaxing, pacing yourself and varying tasks
- flexibility – perhaps working a shorter day or different hours or being based at home some of the time if that fits in with your job.

Speak to your employer's occupational health service if they have one, or your local Jobcentre Plus can put you in touch with Disability Employment Advisors who can arrange work assessments. They can advise you on changing the way you work and on equipment that may help you to do your job more easily. If necessary, they can also help with retraining for more suitable work.

Contact your local JobCentre Plus for information about Access to Work, which is a government initiative to help people overcome barriers to starting or keeping a job.

If you're going into higher education, you may be eligible for a Disabled Students' Allowance. The allowance covers any extra costs or expenses students have because of a disability. For more information, visit the Disability Rights UK website: **disabilityrightsuk.org**

You can find out more about working with arthritis at: **arthritis-uk.org/information-and-support/living-with-arthritis/work-benefits-and-finances**



Looking after yourself

The emotional effects of arthritis can have as much of an impact as the physical symptoms. Long-term pain that affects your daily life and possibly disturbs your sleep can affect your mood.

Help is available if you feel osteoarthritis is starting to get you down. Talk to your GP, who can signpost you to the appropriate services. You can also call our helpline on **0800 5200 520**, who will listen and offer emotional support.

Relationships may come under a bit of strain. If you have a partner, talk to them openly and honestly about how you feel, both physically and emotionally, and encourage them to ask questions.

Tips for living well with osteoarthritis

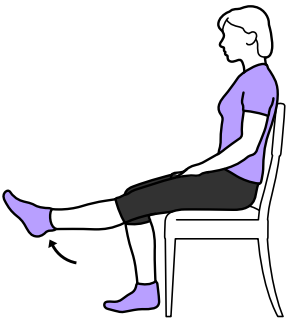
- Being open with your healthcare team about the problems you're having means they'll be able to help you better or point you in the direction of the most suitable services.
- Find out as much as you can about your arthritis. Being well informed can make you feel less worried about the future.
- Accept your limitations. Think about what you can do and enjoy, rather than the things you can't do.
- Try to keep up your social life. If you need to make adjustments, talk to your family and friends about why you need to do things differently.
- Include regular exercise in your day-to-day life. It will build your strength, help you to keep flexible and boost your mood.
- Talk to somebody who understands how you're feeling. This could be someone close to you or someone else with arthritis. Sharing your experiences with others in the same position as you provides valuable mutual support.

Exercises for osteoarthritis

If you have osteoarthritis, regular exercise can help ease stiffness and strengthen the muscles that support your joints.

As well as the exercises shown here, choose a form of exercise you enjoy and stick at it. Swimming, cycling, walking, yoga and Pilates are all great options.

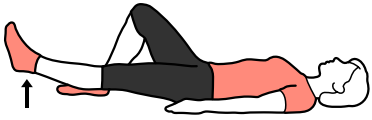
Straight-leg raise (sitting)



Sit well back in a chair, with your back straight, shoulders back and head level. Straighten and raise one leg. Hold for a slow count to 10, then slowly lower your leg. Repeat this at least 10 times for each leg.

As the exercise becomes easier, try it with light ankle weights and pull your toes towards you, so you feel a stretch at the back of your lower leg.

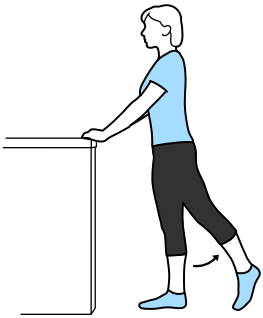
Straight-leg raise (lying)



You can do this on the floor or lying in bed. Bend one leg at the knee. Hold your other leg straight and lift your foot just off the floor or bed. Hold for a slow count of 5, then lower. Repeat 5 times with each leg every morning and evening.

Hip extension

Hold onto a chair or work surface for support. Move your leg backwards, keeping your knee straight. Clench your buttock tightly and hold for 5 seconds. Don't lean forwards. Repeat with the other leg.



Hip abduction

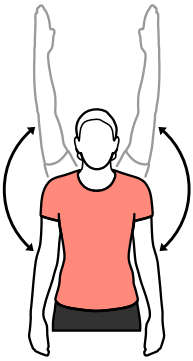
Stand with one hand resting on the back of a chair or work surface for support.

Lift your leg straight up to the side. Hold for 5 seconds and then slowly lower your leg. Try to keep your body straight throughout. Repeat 5 times on each side.

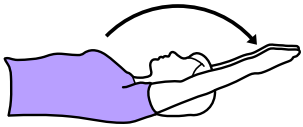
Arm stretch (standing)

Stand with your arms relaxed at your sides. Raise your arms as far as you can and hold for 5–10 seconds. Lower and repeat 5 times.

You can do this exercise by raising your arms either in front of you or to the side. Doing some of each will stretch more muscles.



Arm stretch (lying)



Lie on your back with your arms by your sides. Raise your arms overhead as far as you can and hold for 5-10 seconds. Return your arms to your sides and repeat 5 times.

Arm lifts

Place your hands behind your head so your elbows are pointing to the sides and pressed back as far as you can. Hold for 5 seconds.

Then place your hands behind your back, again keeping your elbows pointing out and pressed back as far as you can. Hold for 5 seconds. Do 5 sets.

Useful addresses

Chartered Society of Physiotherapy

csp.org.uk/public-patient

Complementary and Natural Healthcare Council

Tel: 020 3668 0406
cnhc.org.uk

Living Made Easy

Tel: 020 7289 6111
Helpline: 0300 999 0004
livingmadeeasy.org.uk

Disability Information and Advice Line (DIAL)

dialuk.info/contact-us

Disability Rights UK

Tel: 0330 995 0400
disabilityrightsuk.org
motability.co.uk

Driving Mobility

Tel: 0800 559 3636
drivingmobility.org.uk

General Chiropractic Council

Tel: 020 7713 5155
gcc-uk.org

General Osteopathic Council

Tel: 020 7357 6655
osteopathy.org.uk

Motability

Tel: 0300 456 4566

Notes

Discover our support services

You don't need to face arthritis alone. Get the information, advice and support that you need.

Call our free helpline:
0800 5200 520

Connect with our online community, go to:
community.arthritis-uk.org

Chat with AVA, our online assistant, go to:
arthritis-uk.org/ask-AVA-our-virtual-assistant

Track your symptoms with our easy app, go to:
arthritis-uk.org/track-my-arthritis-symptoms-app

Thank you!

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Support our work

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If you're interested in joining our community of reviewers, please scan the QR code.

Join our community

Sign up today and we'll be in touch by email a few times a month with the latest arthritis news, including research and campaign updates, as well as tips and advice about how to live well with arthritis, and ways you can get involved.

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