

Osteoarthritis of the spine

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**

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What is osteoarthritis of the spine?

Osteoarthritis is the most common type of arthritis, and the spine is one of the most commonly affected parts of the body. Osteoarthritis can affect any part of your spine.

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

The spine is sometimes called the vertebral column or spinal column.

Its purpose is to protect your spinal cord, carry the weight of your body and help you move around. The spine is split into 5 sections – cervical, thoracic, lumbar, sacrum and coccyx.

There are 33 bones, called vertebrae, in your spine – these start at the top of your neck and run all the way down your back, to your tailbone. Strong ligaments surround your spine and support the vertebrae, to help keep them in place.

A joint is where 2 or more bones meet. You have a number of facet joints that sit on either side of your spine and guide the movement of the bones in your back and neck.

The ends of your facet joints are covered in a smooth, slippery tissue known as cartilage. There are also discs of cartilage between your vertebrae. The cartilage and discs allow your spine to move smoothly.



It's normal to have changes in our joints as we get older, and they won't always cause problems. Some of the changes that can occur are:

- thinning of the cartilage and discs
- roughening of the cartilage
- bony growths, called osteophytes, at the ends of the bones.

These changes can occur in other joints in the body, but when they occur in the spine they are often referred to as spondylosis.

Sometimes these changes mean that your joints don't move as smoothly as they should, and this can cause pain and stiffness. But having back or neck pain doesn't always mean that you have osteoarthritis.

Because changes to the joints are so common, osteoarthritis can be difficult to diagnose. Even when changes to your joints can be seen on X-rays or other scans, it can be difficult to say which of the changes are causing problems.

Osteoarthritis can affect anyone at any age, but it's more common over the age of 50 and in women. It's often not possible to say exactly what caused your osteoarthritis, as there may be several factors involved – for example:

- the genes you inherit from your parents
- previous injuries, especially severe or repeated injuries
- having a job that means spending a lot of time in awkward postures
- not being very active
- being overweight, which can increase inflammation while also putting extra load on your joints.



For more information see our **Osteoarthritis** booklet.
You can view all our information online at **arthritis-uk.org**

How will it affect me?

Symptoms of osteoarthritis of the spine vary from person to person, and many people with age-related changes in the spine won't have any problems at all.

For those who do have symptoms, the most common are:

- pain in your back or neck
- stiffness, especially first thing in the morning or after resting
- crunching or cracking noises (called crepitus) when moving your back or neck.

People who have osteoarthritis in their neck might also have headaches or feel pain in their shoulders and arms.

You'll probably find that you have a mixture of good and bad days. The pain might feel worse depending on what you're doing or at certain times of the day. Some people have pain that wakes them in the night.

Are there any complications?

If you have osteoarthritis of the spine, you may have other problems that need treating. Let your doctor know urgently if you:

- have trouble peeing, or feel like you need a pee when you don't
- lose bladder or bowel control
- have feelings of numbness or tingling around your genitals or bottom
- lose power in your legs
- feel unwell – for example, have a fever or are sweating
- notice changes to your balance, coordination or the way you walk
- notice changes in your grip strength or your ability to use your hands as you normally would – especially if both hands are affected.

Spinal stenosis

Some of the complications mentioned in this list can be caused by a condition called spinal stenosis. This is where arthritis-related disc and joint changes cause narrowing of the channels that the nerves pass through. This can result in pressure on the spinal cord or other nerves.

The most common symptoms are pain and weakness or numbness in the area linked to the affected part of the spine – such as the legs, arms, neck, back or shoulders.

Spinal stenosis can usually be managed with exercise and medications, but sometimes surgery will be needed to remove bony spurs and make space for the affected nerves.



Managing your symptoms

There's a range of different treatments and things that you can do for yourself to help with the pain and stiffness caused by osteoarthritis of the spine.

Exercise

Keeping moving is an important way to reduce the pain caused by your osteoarthritis. You may be worried that exercise could make things worse, but joints are meant to move. Keeping your muscles strong will help support your joints.

Exercise can also help you achieve and maintain a healthy weight, which will reduce strain on your spine and your legs. It can also help reduce pain and improve your general health.

You might hear crunching or cracking noises as you exercise, but this isn't anything to worry about. If you have osteoarthritis of the neck, these noises might seem loud, but this is only because they're so close to your ears.

There are 3 types of exercise you should try to do:

- **stretching exercises** – which can help maintain and improve the range of movement of your joints
- **strengthening exercises** – which help to keep your muscles and joints strong and supported
- **aerobic or fitness exercise** – which just means anything that increases your heart rate and makes you a bit out of breath.

You should try to do at least 2 and a half hours (150 minutes) of aerobic exercise each week to keep yourself healthy. This is about 20 minutes a day. Start off slowly and gradually build up how much you do.

You should also try to do strengthening exercises twice a week. Try to include all of the major muscle groups.

If you're at risk of falls, it's worth doing exercises to improve your balance and coordination on at least 2 days per week. Yoga and tai chi can improve your balance and help your back pain.



High-impact exercises, such as running and lifting weights, can be challenging for some people but there's no need to avoid these if you can manage them. Swimming and cycling can be good alternatives, as your joints are supported while you exercise.

You can speak to your GP, a first contact practitioner or a physiotherapist.

Water-based exercises can be helpful. Hydrotherapy, which is done in a warm-water pool, isn't widely available, but a physiotherapist might suggest some exercises you could do at your local swimming pool.

Whatever form of exercise you choose, start slowly and build up gradually.

Diet

Being overweight can put more of a load on the bones of your spine, especially the lower back. But there's also research that shows that being overweight can increase inflammation in your body.

It's also good for your general health if you can keep to a healthy weight. If you could do with losing some weight, a combination of a healthy diet and becoming more active is likely to work best.

There's nothing to suggest that a specific diet will help with osteoarthritis. Try to reduce fatty and sugary foods and eat a healthy, balanced diet that includes plenty of vegetables.

It's not usually recommended to cut out certain food groups entirely. However, if you think a particular food may be affecting your symptoms then you could test this by stopping it for a while and then reintroducing it. If your symptoms improve and then return, then you may have an intolerance to that food. It may be helpful to discuss this with a dietitian.



For more information, see our booklet **Eating well with arthritis**. You can view all our information online at **arthritis-uk.org**

Reducing the strain on your joints

Pacing your activities might help reduce the strain you put on your back and neck. This could mean breaking tasks up into stages, or doing a little bit of something each day. Find your own balance between rest and activity, and make sure you take a break if needed.

Changing your posture can reduce muscle tension. Awkward positions can affect the muscles and tissues that support your spine, and this could lead to more pain. Try to change position regularly and consider your posture whatever you are doing.

Try to avoid twisting your spine when lifting things. Keep the weight of things you're carrying, such as shopping, close to your body and don't lift more than you can manage comfortably.

A physiotherapist or an occupational therapist can advise you on pacing your activities. An occupational therapist might also give you aids and devices that can help you around the home – such as long-handled reachers and sock aids.

Comfortable and supportive shoes can help reduce the strain on many of your joints, including your feet, hips, knees and spine. Try choosing a shoe with a thick, cushioned sole, with plenty of room in the toes.

Coping with low mood and sleep problems



Living with pain can affect your sleep. This can make the pain seem worse and can also affect your mood. If this is something that affects you, ask to be referred to a pain clinic, where you can learn how to manage your pain. There are a number of talking therapies and techniques you can learn, which can help your pain and manage your emotional wellbeing.

Learning to relax your muscles can also help, particularly if you have neck pain and are feeling stressed, as this can cause your muscles to become more tense.

A pillow that's too firm or thick can make neck pain worse. Try to sleep with your head level to the rest of your body. It's important to have a mattress that gives your head and spine proper support.

Try having a hot bath, reading a book, or listening to the radio or music to wind down before bed. If pain is waking you during the night, speak to your healthcare professional or pharmacist about pain relief that may help overnight.



For more information, see our booklet **Sleep and arthritis** or visit our website **arthritis-uk.org**

Pain medications

There are a number of different medicines that can be used to help manage the symptoms of osteoarthritis of the spine. However, they are best used alongside the other treatments and self-help measures described earlier.

Painkillers and NSAIDs

Some people find that over-the-counter pain relief medications, such as paracetamol, help relieve pain.

Some people might need to take stronger painkillers, such as compound analgesics or opioid analgesics. However, these are usually only prescribed for a short period of time and aren't suitable for some types of spine problems. Compound analgesics include co-codamol, and opioid analgesics include morphine and tramadol.

Non-steroidal anti-inflammatory drugs (NSAIDs) can help with pain and inflammation. Ibuprofen can be bought from supermarkets and chemists, but some stronger NSAIDs are available on prescription.

Some NSAIDs are also available as a cream or a gel and can be rubbed over the affected area to help with pain. If you're already taking tablets or liquid versions of NSAIDs, speak to your doctor about creams and gels first, as you might not be able to use both at the same time.



For more information, see our booklet **Painkillers and NSAIDs**

Drugs for nerve problems

If the osteoarthritis in your back or neck is causing you problems with your nerves, there are some drugs that may help. They won't reduce the pain caused by your osteoarthritis, but they might help the irritation caused by your nerves being squashed or pinched.

Amitriptyline may help reduce certain types of nerve pain and improve your sleep, while drugs such as gabapentin work to reduce the effects on your nerves. These drugs are only available on prescription and will only be given if you're having symptoms of nerve problems.

As with all medicines, they can be helpful for some people, but won't work for everyone.

Other treatments

Radiofrequency denervation can be used to treat pain caused by changes to the facet joints. It involves using electrical currents delivered through the tip of a needle to stop the nerve endings in your spine sending pain signals to your brain.

You'll be given an injection of local anaesthetic first, to numb the skin. You'll then lie on your front while the treatment is given under X-ray to ensure accurate placement. If it works for you, you can expect the benefit to last for up to 2 years, and you might be able to have it done again at a later date.

Other pain relief

Warmth on the affected joints has been shown to reduce pain and stiffness. This can be a bath or shower in warm water, or a heat



pack applied to your skin. Different heat packs are available – many of which are reusable and can be heated in the microwave.

Some people find that applying ice packs, cold pads or packs of frozen vegetables can be soothing. When applying heat or cold packs to your skin, make sure you wrap them in a tea towel, rather than putting them on your bare skin.

Heat or cold therapy can be used for 20 to 30 minutes at a time every few hours.

Transcutaneous electrical nerve stimulation (TENS) may help to ease pain. It involves sending electrical pulses to the nerves through pads attached to the skin. TENS isn't usually available on the NHS. A physiotherapist should be able to advise you if you're thinking of buying a TENS machine. TENS may not be suitable for everyone. It may also not be recommended if you have a pacemaker.

Massage or acupuncture can sometimes provide pain relief, alongside exercise. The healthcare professionals treating you should be able to give you information on how to access these treatments.

Surgery

If your pain is mainly in your back or neck, then surgery is not usually recommended.

Spinal stenosis that is irritating your nerves could lead to pain, numbness and weakness, which could affect your legs and arms. If this is happening, or if it's affecting your bladder or bowel, you may benefit from surgery.

Surgery could involve a small piece of bone or a disc being removed from your spine. In some cases, 2 or more of the vertebrae are fused together, to give the spine more stability.

Exercises for osteoarthritis of the spine

Exercise can really help improve the symptoms of osteoarthritis of the spine. You'll benefit most from the exercises if you do them little and often, around 2 to 3 times a day.

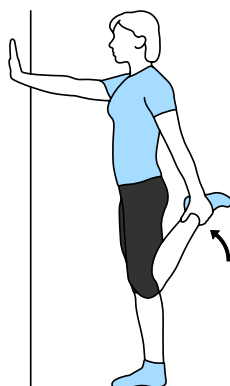
If you're trying these exercises for the first time, make sure you introduce them gradually. You may feel a little uncomfortable while doing the exercises, but they shouldn't feel very painful or make your symptoms worse.

Everyone responds to exercises differently and it's important to find which exercises are most helpful for you. If you're not sure which exercises to do, or have any concerns about exercising, speak to a health professional, such as your GP or a physiotherapist.

Back exercises

One-leg stand

Holding onto something for support, bend 1 leg up behind you, and hold your foot if you can. Hold this position for 5 seconds. Repeat 3 times with each leg.



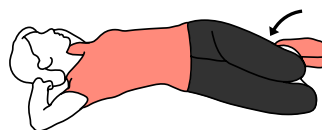
Knees to chest

Lie on your back with your knees bent. Bring 1 knee up and cup your hands around the back of your thigh. Pull your knee gently into your chest for 5 seconds. Repeat up to 5 times on each side.



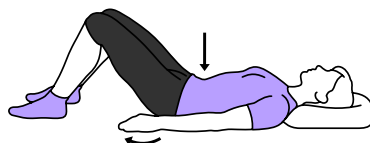
Back stretch

Lie on your back, with your hands above your head. If this is uncomfortable, you can put a pillow under your head and keep your arms by your sides or folded over your chest. Bend your knees and roll them slowly to 1 side, keeping your feet on the floor. Hold the position for 10 seconds and move your knees back. Repeat this exercise 3 times on each side.



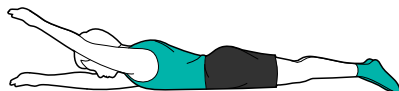
Pelvic tilt

Lie down, with your knees bent. Tighten your stomach muscles, flattening your back against the floor. Hold the position for 5 seconds. Repeat this 5 times.



Arm raise

Lie on your stomach with your back in a neutral position. Tense the muscles in your lower stomach and raise 1 arm forwards. Hold this position for 5 seconds, and then relax your arm. Repeat this exercise 10 times with each arm.



Leg raise

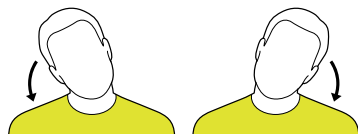
Lie on your stomach with your back in a neutral position. Tense the muscles in your lower stomach. Raise one leg up off the bed or floor. Hold this position for 5 seconds, and then relax your leg. Repeat 10 times with each leg.



Neck exercises

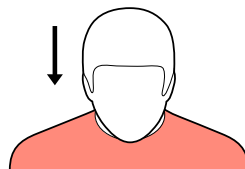
Neck tilt (side to side)

Tilt your head towards your shoulder, leading with your ear. Hold for 5 seconds. Return your head to its normal position, and then repeat the exercise on the other side. Repeat this 5 times on each side. If this is uncomfortable to do while you're standing or sitting, try it while you are lying down, so that your head is supported.



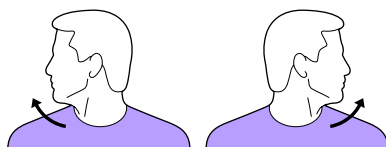
Neck tilt

Sit or stand, keeping a good posture. It's best to sit down if you have trouble balancing. Slowly tilt your head down, to rest your chin on your chest. Gently tense your neck muscles and hold for five seconds. Repeat 5 times.



Neck turn

Turn your head to one side, keeping your chin at the same level. Make sure you don't move beyond what's comfortable for you. Hold for 5 seconds in this position. Return your head to the centre, and then repeat the exercise on the opposite side. Repeat 5 times on each side. If this is uncomfortable to do while you're standing or sitting, try it while lying down, so that your head is supported.



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!

A team of people helped us create this booklet. We would like to thank:

Amy Selby

Gillian Graham

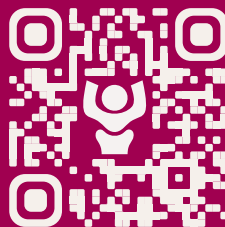
We would also like to give a special thank you to the people who shared their opinions and thoughts on the booklet. Your contributions make sure the information we provide is relevant and suitable for everyone.



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