Ankylosing spondylitis

What is ankylosing spondylitis?
Ankylosing spondylitis (AS) is a disease which affects the spine and other joints, and causes pain and stiffness.

AS starts with inflammation at the entheses, the tissues where ligaments or tendons attach to a bone. The bone gets damaged, and new bone grows to heal the site. The spine becomes stiff and painful. This usually happens first at the bottom of the back, in the sacroiliac joints. This process repeats itself, and eventually the new bone growth makes the individual bones of the spine (vertebrae) fuse together, causing the spine to be 'ankylosed'. Ankylosing spondylitis refers to the end stage of a larger group of arthritis affecting the spine: axial spondyloarthritis (axSpA). Only a subset of this group will go on to develop AS. AS usually comes on during later teenage years or early adulthood, though not always. It affects nearly three times as many men as women.

REAL LIFE STORY

‘I was diagnosed with AS approximately four years ago. Although the condition has got progressively worse, I have become progressively better at dealing with it. This is a combination of familiarity with the pain, improved medication and knowing my limits. It can be difficult to adjust socially and with relationships as well. Don’t stop being active. I’m rubbish at exercising but I am hoping to improve on this. Stretch often and try to achieve good posture. Know your physical limits but don’t ever give up.’

How will it affect me?
AS comes in two stages. First, there is inflammation in the base of the spine, affecting the sacroiliac joints. This can create pain in the lower back, hips, thighs or buttocks. In time, some people also get aching or swelling in other joints, including further up their back (lumbar spine), chest wall and neck, shoulders, knees and ankles. Children often feel pain in their knees, ankles, feet, hips and buttocks before they feel back problems. During this time, AS may be difficult to diagnose as it may not be readily visible on radiographs or x-rays of your sacroiliac joints. This stage is called non-radiographic axSpA. Sometimes it can take more than 10 years for AS to show on an x-ray.

The second stage of AS comes after bones begin to knit together, making the spine stiffen up. For some people, the pain lessens at this stage. Everyone is affected differently by the condition. Symptoms may come and go for many years. Many people with non-radiographic axSpA may never progress in this second stage, ie their will never get bones knitting together.

REAL LIFE STORY

‘I was diagnosed three years ago though I had had symptoms for five years – aches in my back and leg and a slight decrease in mobility. It was when I was knocked out by the pain in my hips that I went to see my doctor for a diagnosis.

Now I take anti-inflammatories so my condition is not too severe. But I am always aware that my hips don’t feel quite right as there has been some loss of movement. Simple steps like stretching and making sure I exercise are excellent for making me feel better – and also give me a sense of control.’
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The main things you may experience with AS are:

- pain in your buttocks, hips and thighs
- back pain and stiffness, which comes on slowly over weeks or months and does not go away (rather than short attacks)
- early morning stiffness and pain, which may lessen during the day with exercise
- fatigue
- weight loss in the first stage of AS
- feeling feverish or getting night sweats, especially during a flare-up.

Other symptoms could include:

- pain in your heel – underneath your heel (plantar fasciitis) or in the Achilles tendon at the back
- pain in the eye, blurred vision and bloodshot eyes, called uveitis or iritis
- difficulty or pain when breathing or coughing. This happens because of stiffening where the ribs meet the breastbone
- problems with the heart – very occasionally AS causes the heart not to function completely perfectly, but these symptoms are usually so mild you will not know they are there.

In time, AS can make the spine bend forward in a stoop. Working on your posture (the way you stand and sit) and exercising can stop this happening.

Some people develop other conditions alongside AS. These include the skin condition psoriasis, and bowel disease called ulcerative colitis or Crohn’s disease.

What is the treatment?
There is no cure for AS, but there are ways of managing it.

There are a number of drug options to consider:

- **non-steroidal anti-inflammatory drugs (NSAIDs)** (such as ibuprofen) can reduce pain so you can exercise and sleep well. You may need to take these during bad patches, or flare-ups, or possibly over a longer period. Take them with or after food.

- **painkillers** (such as paracetamol) are sometimes prescribed to manage pain. These do not have an anti-inflammatory effect.
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- **disease-modifying anti-rheumatic drugs or DMARDs** (like methotrexate or sulfasalazine) are very successful in treating some forms of arthritis, though the evidence suggests they are not as effective in managing AS as other arthritis conditions. These drugs may have side effects.

- **anti-tumour necrosis factor drugs** (also known as biologics) are drugs given by injection or infusion (for example: adalimumab, certolizumab, etanercept or golimumab). They are very good at controlling AS. However, they are expensive and as yet are only given to people with severe AS under guidelines from the National Institute for Health and Care Excellence, British Society of Rheumatology or the Scottish Medicines Consortium. Not all drugs in this family are licensed for use for treating AS. Anti-TNFs are powerful drugs which can have side effects as well as benefits.

**Who will I see?**

Your GP will look at your posture to see if your lower spine is beginning to flatten out, instead of curving in. In the early stages, it can be hard to tell AS from more common back pain, so they may do some blood tests to help decide what is wrong. The doctor will probably then refer you to a specialist.

A specialist (or consultant) rheumatologist is based at a hospital, and is part of a rheumatology team including nurses and physiotherapists. It is likely that they will x-ray your spine or arrange for an MRI scan. You should also see a physiotherapist, who will teach you an exercise routine to suit you and help your posture.

If you get eye inflammation, go to your hospital’s emergency department straight away so you can see an eye specialist (ophthalmologist). Otherwise, your eye could be permanently damaged. They will give you eye drops which will reduce the inflammation in a few hours.

**What can I do to help myself?**

**Exercise**

Keeping physically active is crucial to stop your spine seizing up. Swimming is very good, as is other low-impact exercise like walking. Wear trainers with an impact-absorbing insole. Avoid high-impact or contact sports like tennis or rugby.

Keeping the range of movement in your hip joints and shoulders is vital to prevent stiffening into a bent position. Get advice on how to do this from a physiotherapist. Keep your muscles strong and stop them reducing in length by exercising them. Regular stretching exercises will help. Getting out of breath every day is also good for your lungs.

**Other useful tips include:**

- watch your posture – how you sit, stand and lie. Get a good chair for work and home; avoid squashy, low sofas. Sit tall and pull up your shoulders, and move your spine regularly. Your bed should be firm and not sag. Physiotherapists and occupational therapists can advise further

- lie flat on your back or front for at least 20 minutes a day. It is helpful if you can
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spend some of this time lying on your front (‘prone’), with your head turned to the side

- try heat or cold – hot baths or showers can help morning stiffness. Hot water bottles or electric blankets help at night. An ice pack (or a bag of frozen peas in a towel) can soothe an inflamed area, but take care as ice can burn

- do not wear a corset or brace – these will just make the spine rigid

- when driving, take frequent stops to stretch. Use a small cushion behind your back or under your bottom. You can add extra mirrors to reduce twisting round. Your car’s head restraint must be adjusted correctly to protect you in an accident. Even a small impact could affect you badly

- eat a well balanced diet with plenty of protein (meat, fish, pulses), fruit and vegetables for vitamins. Make sure you get enough calcium and vitamin D as AS makes you more likely to develop osteoporosis

- stop smoking – AS can make moving your rib cage harder as you breathe. It is also well known that smoking can make your AS progress faster and more difficult to treat.

- if back or hip stiffness or pain are interfering with making love, talk to your partner to make sure they understand your feelings. You can explore more comfortable positions together. Sex can be just as rewarding if you plan in advance so you can rest. Arthritis Care has a helpful booklet on relationships

- help your family to understand how AS affects you, so they can support and encourage you. Show them this or other factsheets, or refer them to Arthritis Care’s website or helpline. They might join in with your exercise routine.

- join a group of people who share similar problems, or join an online discussion forum such as Arthritis Care’s (www.arthritiscare.org.uk/forums)

- avoid osteopathy, chiropractic or other manipulation of the spine, which can be bad for AS. Other complementary therapies such as acupuncture or aromatherapy, may help reduce pain and relax you, but you may have to pay for them – ask your GP first. Choose a complementary therapist who is a member of a professional body. Beware of anyone asking you to give up your prescribed drugs.

Is it hereditary?

Yes, it can be. Most people who have AS have inherited a gene called HLA-B27. Just because you have this gene, it does not mean you will get AS, and there are other genes involved too.
Where can I get more information and support?

Arthritis Care is the UK’s largest charity working with and for all people who have arthritis.

We are here to help you make positive choices through our information, website, self-management training and professional helpline. Call the free helpline for confidential support on 0808 800 4050 (10am-4pm weekdays) or email: Helplines@arthritiscare.org.uk

You can find support from others with arthritis by joining our online discussion forums.

We rely on donations to fund our vital work supporting people living with arthritis. If you would like to make a contribution, please phone us on 020 7380 6540 or donate online.

www.arthritiscare.org.uk

Other organisations

The National Ankylosing Spondylitis Society (NASS) has information about AS, and also runs exercise programmes: Tel: 020 8948 9117 or visit www.nass.co.uk

Our information is regularly reviewed. This factsheet will be reviewed in 2016. Please visit our website for up-to-date information and reference sources or call 020 7380 6577.

Last reviewed in 2015

Note

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Contact us
For confidential information and support about treatments, available care and adapting your life, contact the Arthritis Care Helpline
Freephone: 0808 800 4050
10am-4pm (weekdays)
Email: Helplines@arthritiscare.org.uk

For information about Arthritis Care and the services we offer, contact us at: www.arthritiscare.org.uk

You can also talk to other people who are living with arthritis, through the discussion forums on our website.

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Arthritis Care is a charity registered in England and Wales (206563) and in Scotland (SC038693)