

Advanced Therapies for axial SpA

For anyone living with
axial spondyloarthritis



Axial SpA
works silently.
We don't.

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Who is this guide for?

This guide is for anyone with axial spondyloarthritis (axial SpA) including people with ankylosing spondylitis.

What is axial spondyloarthritis?

Axial spondyloarthritis (axial SpA) is a long-term condition that causes pain and inflammation in the spine and joints.

The main symptom is back pain, but it can also affect other joints, tendons and ligaments. The eyes, skin and bowel can also sometimes be involved.

Axial spondyloarthritis is an umbrella term. It includes:

Non-radiographic axial spondyloarthritis

Where x-ray changes are not present but inflammation is visible on MRI or you have symptoms.

Around 7 in 10 people with non-radiographic axial spondyloarthritis have visible inflammation in the sacroiliac joints or the spine when an MRI of the back is carried out.

Around 3 in 10 may not have any inflammation visible on MRI despite symptoms of back pain. Inflammation may not always be visible at the time of an MRI scan.

Ankylosing spondylitis (sometimes also called radiographic axial SpA)

Where there are changes to the sacroiliac joints or the spine that can be seen on x-ray images.

To keep this guide simple, we refer to axial SpA throughout, except when it's important to highlight differences between non-radiographic axial spondyloarthritis and ankylosing spondylitis.

Gareth's story

**When I was first diagnosed I found it really difficult to function.
As soon as I started on the advanced therapy I could see the difference.**

It was taking me less time to get myself up and about in the mornings. I have a physical job and, over time, I found most aspects of my work steadily getting less painful.

Keeping active for me is key. I try to attend my local NASS branch as often as I can and enjoy the odd spin class at the local gym.

It's also important to have a well-deserved day of rest every now and again. For me this means getting creative in the kitchen and catching up with a good book.



How is axial SpA treated?

Staying physically active is essential and, for some people, can be enough to manage axial SpA symptoms like pain and stiffness. That might include physiotherapy, stretching exercises, and hydrotherapy. Sometimes symptoms can be fully controlled without medicines.

Many medicines are available to treat axial SpA, but physical activity should always be continued where possible.

Anti-inflammatory medicines, also known as non-steroidal anti-inflammatory drugs (NSAIDs), are usually the first treatment option. Common examples include ibuprofen, naproxen, and celecoxib.

If NSAIDs do not effectively control axial SpA symptoms, or if you cannot take them due to side effects or other health conditions, advanced therapies may be recommended.

What advanced therapies are available to treat axial SpA?

When physiotherapy and anti-inflammatory medications are no longer enough to control axial SpA symptoms, advanced therapies that block certain proteins involved in inflammation may be needed.

All advanced therapies work by reducing abnormal inflammation produced by the body.

There are three main groups of advanced therapies. TNF and IL-17 blockers (or “inhibitors”) are generally taken as an injection into the skin or an intravenous (IV) infusion, whereas JAK inhibitors are tablets.

They are similarly effective for controlling inflammation in the spine and sacroiliac joint.

There are several medications in each group, which are listed later in this guide.

Anti-TNF therapy

TNF blockers, or anti-TNF medications, have been used for decades to treat many inflammatory conditions including axial SpA and other conditions that sometimes co-occur, such as psoriasis, inflammatory bowel disease, and uveitis (inflammation of the eye).

Of the advanced therapies, doctors have the longest experience in using anti-TNF medications and understand their benefits and risks well.

Anti-TNF therapy blocks a protein that the immune system produces to cause inflammation called tumour necrosis factor (TNF) which is over-active in people with inflammatory arthritis, including axial SpA.

Anti-IL-17 therapy

IL-17 blockers or inhibitors became available after anti-TNF, but some have been used for many years. They are used for axial SpA, as well as psoriasis and psoriatic arthritis.

For people with both axial SpA and severe psoriasis, IL-17 blockers are particularly useful for treating skin inflammation. However, they are not used for people with active inflammatory bowel disease.

These medications work by blocking an inflammatory protein called interleukin (IL) 17, but different IL-17 blockers may do this in different ways. There is no difference in how they reduce inflammation in the spine, but side effects may differ.

The main side effect unique to IL-17 blockers is candidiasis (thrush). Thrush is mild in most cases and can be controlled using simple anti-thrush medication.

Advanced therapies work by reducing the abnormal inflammation produced by the body.

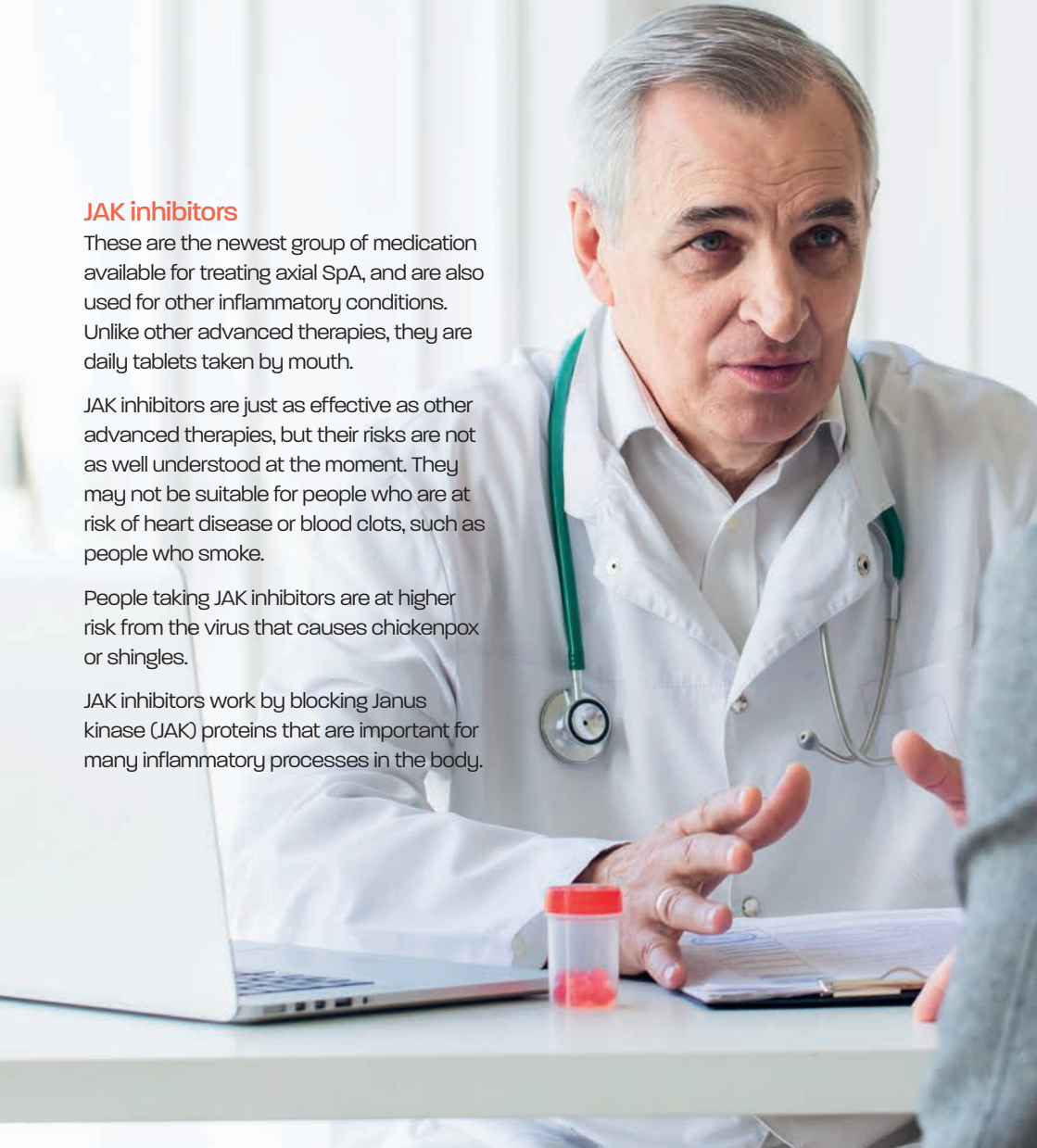
JAK inhibitors

These are the newest group of medication available for treating axial SpA, and are also used for other inflammatory conditions. Unlike other advanced therapies, they are daily tablets taken by mouth.

JAK inhibitors are just as effective as other advanced therapies, but their risks are not as well understood at the moment. They may not be suitable for people who are at risk of heart disease or blood clots, such as people who smoke.

People taking JAK inhibitors are at higher risk from the virus that causes chickenpox or shingles.

JAK inhibitors work by blocking Janus kinase (JAK) proteins that are important for many inflammatory processes in the body.



Who can be offered advanced therapies?

Many people with axial SpA do not need advanced therapies because they can manage their condition well with a combination of exercise, physiotherapy and non-steroidal anti-inflammatory drugs (NSAIDs).

For those who continue to experience symptoms despite these treatments, advanced therapies may be necessary.

Your rheumatology team might talk to you about advanced therapies if:

- You have tried NSAIDs but you feel they are not helping.
- You are not able to take NSAIDs because they cause problems with your stomach or other medical conditions.
- You still have severe pain and stiffness due to inflammation from your axial SpA.
- Your axial SpA is having a big impact on your quality of life, for example, on your ability to work or enjoy your family or social life.

Advanced therapies for axial SpA can only be prescribed by a rheumatology service. Your GP cannot offer them to you. If you are not under the care of a rheumatology team, do ask your GP to refer you.

The National Institute for Health and Care Excellence (NICE) has produced guidelines about prescribing advanced therapies that must be followed. Your rheumatology team will assess whether you meet the criteria for advanced therapies and if they are safe for you.

You may not be suitable for certain advanced therapies if:

- Your pain is not caused by inflammation.
- You have, or are at high risk of, repeated or serious infections.
- You have multiple sclerosis (MS) or heart failure.
- You currently have or previously had certain cancers.
- You are at high risk of heart disease.



How can advanced therapies help?

Advanced therapies reduce the pain and stiffness caused by inflammation. Hopefully this means you will be able to get moving more quickly in the morning, find it easier to carry out daily activities, be able to exercise more, and sleep better.

In short, advanced therapies aim to give you a better quality of life.

Current research suggests that 8 in 10 people will have a positive response to advanced therapies. The research also suggests that advanced therapies may reduce further damage and fusion in the long-term.

Advanced therapies only help with symptoms due to inflammation. They do not work for pain from existing damage. They cannot reverse any damage or fusion. However, research has shown that many people with long-standing axial SpA can still experience improvement.

Advanced therapies do not relieve pain that is unrelated to inflammation, such as nerve pain or fibromyalgia.

Unfortunately, not everyone with axial SpA responds to advanced therapies. The reasons for this are not fully understood.

People who smoke or carry excess weight are less likely to respond to treatment. Smoking may also speed up damage and fusion of the spine. It is very important to stop smoking.

It can take 3 to 6 months to determine if an advanced therapy is working. If it does not provide enough benefit or causes serious side effects, your rheumatologist may recommend stopping the treatment. If safe and appropriate, they may suggest trying a different advanced therapy.

It is important to continue with your regular exercises, whatever treatment you take.

What are the side effects?

Most people do not experience side effects with advanced therapies. However, the most common side effects are:

Injection site reactions

You may notice redness, swelling, or pain at the injection site. These reactions are usually mild and not serious. Rotating your injection sites regularly can help reduce irritation.

If the reaction becomes severe, worsens over time, or you suspect an allergic reaction, inform your rheumatology team. They may suggest switching to a different medication if needed.

Infections

TNF, IL-17 and JAK are important for the body's immune defence against infections. Blocking them with advanced therapies can increase your risk of infections.

Most infections are mild, but if you become unwell, such as developing a fever, you should see your GP as you may need antibiotics. You should pause your advanced therapy while you have an active infection or are taking antibiotics.

It's important to inform any doctor treating you that you are on an immune-suppressing medication, as this may affect your treatment.

You should pause your advanced therapy while you have an active infection or are taking antibiotics.

What are the long-term risks?

All medications come with risks, and it's important to understand them and weigh them against the potential benefits. These risks should always be fully discussed with your rheumatology team.

Anti-TNF and anti-IL-17 therapies have been used for many years in people with axial SpA and other inflammatory conditions, with no serious long-term side effects reported. Ongoing research continues to monitor their safety and, so far, no increased risk of serious cancers or heart disease has been found with these medications.

Anti-TNF medications may slightly increase the risk of some skin cancers, so it's important to protect your skin by taking sensible sun precautions and see your GP about any suspicious skin moles, lumps or bumps that develop.

Anti-IL-17 medications can increase the risk of fungal infections, such as thrush. These can be treated with anti-fungal medications.

JAK inhibitors increase the risk of shingles. If you have never had chickenpox, inform your rheumatology team before starting treatment.

In some people, especially smokers, JAK inhibitors may also raise the risk of heart disease, blood clots, and cancer.

How do I decide if advanced therapies are for me?

- Your decision should be made together with your rheumatology team. They can assess whether advanced therapies may help with your symptoms and discuss any potential risks.
- Read through the information in this guide and any other leaflets given to you.
- Ask your family and friends to look through the information and discuss this with them.
- Have a chat with someone who is taking an advanced therapy. More than a third of NASS members are now taking these therapies.
- Call for a chat on the NASS Helpline (020 8741 1515).

Use the following pages to write down your hopes and concerns about advanced therapies. Take it to your next appointment and talk them through with your rheumatology team.

Visit our Your SpAce page on the NASS website which covers making medication decisions. www.nass.co.uk/about-as/your-space/medication/

Concerns



Getting started on an advanced therapy

Your rheumatology team will ask you questions and do several tests before starting advanced therapies.

You'll be asked to complete questionnaires to assess your symptoms. This will include questions on your fatigue, stiffness and back pain. You will be asked to rate your symptoms on a scale of 1 to 10.

Blood tests check for inflammation, immune cell levels, cholesterol, and infections like hepatitis or tuberculosis. They also check if you are immune to chickenpox.

Chest X-ray to make sure there are no hidden infections.

In some cases, an **MRI scan** may be done to confirm that inflammation is active, as advanced therapies only work for inflammation-related symptoms.

Choices, choices, choices...

There are several advanced therapies available to treat axial SpA, all of which are similarly effective.

Your rheumatology team may recommend a specific medication based on your other medical conditions, as some treatments may not be suitable.

They will guide you through your options, explaining the key differences to help you make a choice.

When deciding on a treatment, you may want to consider:

- How often will I need to inject?
- Is there an injection device I prefer or find easier to use?
- Can I safely store injection pens in a fridge?

We have outlined the main therapy options, including 'biosimilar' medicines. Biosimilars have similar benefits and safety as the original versions but are more cost-effective. Think of biosimilar and original medicines like unbranded and branded breakfast cereal.

Anti-TNF choices

Adalimumab - injections once every two weeks.

Certolizumab pegol - to start, you will have 2 injections every 2 weeks for the first 6 weeks. After that, the maintenance dose is either 1 injection every 2 weeks or 2 injections every 4 weeks.

Etanercept - injections once or twice a week.

Golimumab - injections once a month.

Infliximab - given by an IV infusion, often in a day unit clinic. The dosing varies but is often every 6 to 8 weeks. Sometimes it can be given as an injection usually once a week or every two weeks. Please note infliximab is not available to treat non-radiographic axial SpA.

TNF inhibitors (except etanercept) are also beneficial for co-existing uveitis, psoriasis or inflammatory bowel disease.

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Anti-IL-17 choices

Bimekizumab -injections once a month. This medication has a higher risk of candida (thrush) than other advanced therapies.

Ixekizumab - injections once a month.

Secukinumab - to start, you will have weekly injections for 4 injections. From week 4, you will continue on monthly injections.

IL-17 inhibitors are particularly beneficial for skin psoriasis. They are not preferred when there is uveitis, and are not recommended if there is active inflammatory bowel disease.

JAK inhibitor choices

Tofacitinib - tablet taken once or twice a day. Please note this medication is not available to treat non-radiographic axial SpA.

In people with rheumatoid arthritis and risk factors for heart disease, tofacitinib increased risk of heart disease and cancer when compared to TNF inhibitors.

Upadacitinib - tablet taken once a day.

JAK inhibitors are also beneficial for co-existing inflammatory bowel disease.

What next?

Once you and your rheumatology team have decided on a medication, you will be given all the information you need, including how to do your injections.

Delivery

Advanced therapies will be delivered to your home regularly by a specialist homecare company commissioned by the NHS. These companies operate independently from your rheumatology team. Your prescription and delivery are fully covered by the NHS, and you can arrange deliveries at a time that suits you.

How long does treatment last?

Your response will be assessed after approximately 3 to 4 months to determine if it is effective for you. If it helps with your axial SpA symptoms and you are happy with it, you may continue long-term, as long as it remains effective and you do not develop any issues. You will have regular blood tests and check-ups with your rheumatology team while on the treatment.

Advanced therapies are not a cure for axial SpA, so most people's symptoms will return if they stop treatment completely. However, if you have been symptom-free for a long time, it may be possible to reduce how often you take the medication under medical guidance.

Advanced therapies will be delivered to your home.



The main reasons for having to stop or pause your therapy

Surgery

If you have surgery planned, you should talk to your rheumatology team about how far in advance to stop your treatment prior to your surgery, and how long you will need to wait before re-starting after surgery.

Serious infections

If you develop an infection and need to take antibiotics, you should stop your treatment and not take your next dose until you have finished the course and are sure you are clear of infection. If you are not sure when to restart, check with your rheumatology team.

Serious viruses

If you develop a virus such as COVID-19 or shingles you should stop your treatment and not take your next dose until you feel you have fully recovered. If you are not sure when to restart, please check with your rheumatology team.

Attending regular check ups

Your rheumatology team will tell you how often you need to attend check-ups while on advanced therapies. This may vary depending on local arrangements and which medication you are taking.

At these check-ups, your rheumatology team will ask you about any changes to your health, any side effects and how your axial SpA is doing. You will also be asked to complete simple questionnaires, such as the BASDAI, to check you are still getting a good response.

It's important you take the opportunity to honestly share how your advanced therapy is making you feel. All decisions to start or change treatment should be discussed and agreed upon with your rheumatology team.

You may be asked to have some blood tests. The blood tests are very important and, in some hospitals, if you haven't had an up to date blood test, your prescription may be delayed.

Monitoring your response to treatment and your health whilst on advanced therapy is extremely important. If you fail to attend your check-ups for some time it is possible that your prescription will be stopped.

Do let any new doctors you see know that you are taking an advanced therapy, as this may not appear on your regular prescription.

Day-to-day living with advanced therapy

Vaccinations

Pneumonia, flu and COVID-19 vaccines are recommended for people on advanced therapies.

Some, particularly older, people may benefit from the shingles vaccination. Your rheumatology team will discuss this with you if it is needed.

Some vaccines are not recommended when taking advanced therapies. These 'live' vaccines should ideally be given before you start advanced therapies. Speak to your rheumatology team if in doubt.

Other medicines

Advanced therapies may be prescribed alongside other medicines. Always check with your doctor before starting any new medicines, and inform any healthcare professional treating you that you are on an immune-suppressing medication.

If you develop an infection and are prescribed antibiotics, do not take your advanced therapy again until you have finished the course of antibiotics and the infection has fully cleared.

Eating and drinking

Visit the NHS Choices website for information on reducing your risk of infection from foods.

There is no known interaction between advanced therapies and alcohol.

Planning a family

If you are planning to start a family, speak with your rheumatology team in advance to discuss the safest treatment options for you.

A blue rolling suitcase with a silver telescopic handle and four wheels, positioned on a light-colored tiled floor. The background is a blurred indoor setting.

Travelling

If you are travelling abroad with your injections, plan ahead to keep them at the correct temperature during your journey and stay.

Medical cool bags and travel fridges, often designed for insulin, can also work well for injectable medications and are available to buy online. You may also need a travel-sized sharps disposal box, usually available from your medicine delivery company.

When you travel you will need to keep your injectable medication in your hand luggage. Before you travel, ask your rheumatology team for a letter confirming your prescription and keep a copy in your hand luggage in case it is needed for customs or security checks.

If you are visiting a sunny destination, remember to use a high-factor sunscreen. This is good practice for everyone, but especially important when taking advanced therapies.



Axial SpA
works silently.
We don't.

Become a NASS member today!

Join us. Become part of the biggest network of people living with axial SpA in the UK.

We know living with axial SpA can be tough. We know living with the condition can be isolating.

When you join NASS, you will become part of a community of people who understand what it's like to live with the condition. Our members tell us that when they join us they feel less alone.

But importantly, you'll be helping us to help others. Your voice will help us transform the diagnosis and care of people with axial SpA. And your support will help us ensure that no one is locked out of life because of the condition.

As a NASS member, you will receive:

- AS News Magazine
- Access to our Members Day (free for a member and guest)
- Invitations to our Members-only webinars
- Access to the Members only resources on our website
- Access to our Members Forum
- Voting rights at our AGM
- Chance to contribute to cutting-edge research and campaigns
- Exclusive guides to claiming disability benefits (on request)
- Members Pack (including membership card)

Raise your voice. Join NASS today and help ensure that everyone can live well with axial SpA.

Simply call 020 8741 1515, or visit www.nass.co.uk/get-involved/become-a-member/ to become a member today!

Thank you for your support

Did you know that NASS doesn't receive any statutory funding? We rely on the kindness of our supporters to fund our work.

Every donation helps us provide vital support to those who need us, raise awareness of axial SpA, and transform the diagnosis and care of people living with the condition.

Can you help us help more people live well with axial SpA?

To donate please visit: www.nass.co.uk/donate

The information in this guide was informed by the 2025 British Society for Rheumatology guideline for the treatment of axial spondyloarthritis with biologic and targeted synthetic DMARDs.

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