



INFORMATION SHEET

JOINTS

WHAT YOU NEED TO KNOW IF YOU HAVE CROHN'S OR COLITIS

INTRODUCTION

Joint problems are one of the most common symptoms outside the gut that people with Crohn's or Colitis experience.

These can include:

- pain in joints (arthralgia)
- pain and swelling in joints (arthritis)
- inflammation around the tendons and ligaments (enthesitis).

This most commonly affects the elbows, wrists, knees and ankles, but sometimes joints in the spine and pelvis become inflamed. Joint problems can come and go – for some people they get worse when there is a flare-up of Inflammatory Bowel Disease (IBD), but for others joint activity is independent of gut symptoms.

Joint problems can make coping with other aspects of Crohn's or Colitis more difficult. They can limit mobility and cause pain which might affect work, exercise or social life. But there are effective ways to treat and manage joint problems with the support of your IBD team and rheumatologist.

This Information is for anyone who wants to know more about joint problems related to Crohn's or Colitis. It looks at diagnosis and treatment, the health professionals who can help and what you can do to manage joint problems.

To find out how bones can be affected by Crohn's or Colitis see our information on **Bones**.



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HOW MANY PEOPLE WITH CROHN'S OR COLITIS ARE AFFECTED BY JOINT PROBLEMS?

Joint pain or pain and swelling of the joints are the most common symptoms outside the gut (also known as extraintestinal symptoms or EIMs) associated with Inflammatory Bowel Disease. Around 1 in 3 people with Crohn's or Colitis experience these and they can also include iritis and uveitis (inflammation of the eye) and erythema nodosum (inflammation of the fat layer beneath the skin).

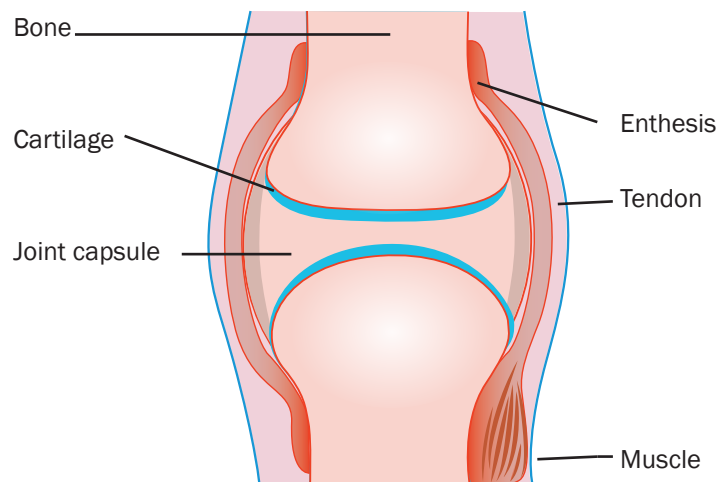
The type of Crohn's or Colitis you have, how severe it is and time since diagnosis can all affect how likely you are to have joint problems.

Many people do not realise that there can be a link between joint and gut symptoms, and gastroenterologists do not always specifically ask about joint problems. This can mean arthritis may be not be diagnosed for some time and effective treatment can be delayed.

If you have pain or swelling in your joints or back, particularly if it is associated with severe stiffness in the morning- tell your IBD team or GP.

JOINTS EXPLAINED

A joint is where two bones meet.



It is made up of:

- Surfaces of the bones - these are covered by a thin layer of cartilage, a tough but slippery surface which allows the bones to move freely and cushions the joint.
- Joint capsule - this stops the bones moving too much and the inner surface produces thick fluid that lubricates the joint.
- Enthesis - tissue that attaches a tendon to the bone.
- Tendon joins muscle to bone.

WHAT CAN CAUSE JOINT PROBLEMS IF YOU HAVE CROHN'S OR COLITIS?

The body's immune system causes inflammation in the joints and the area around them. Why this happens is not fully understood but proteins which normally protect the body are overproduced and cause inflammation. This includes a protein called tumour necrosis factor (TNF).

There is overlap in cause between inflammatory arthritis and Inflammatory Bowel Disease. It has been suggested that because joint problems are most often diagnosed after the initial diagnosis of Crohn's or Colitis, environmental triggers, genetic factors and changes in the immune response are similar for both conditions. A particular gene called HLA-B27 - a human leukocyte antigen variant B27 is more common in people who have this type of arthritis.

This relationship between these two apparently unrelated organ systems is sometimes known as the Joint – Gut axis.

WHEN ARE JOINT PROBLEMS DIAGNOSED?

Most people experience joint problems after their diagnosis of Crohn's or Colitis. But arthritis affecting joints of the arms or legs are diagnosed before this in 1 in 5 people, and in 4 out of 10 people who have joint problems in the spine. This has been found to come before a diagnosis of IBD by two months on average. So, for some people joint problems can be a first symptom of Crohn's or Colitis.

Because of the known link between joint and gut problems a faecal calprotectin test might be carried out. This measures the level of calprotectin (a protein contained in white blood cells) in a stool (poo) sample and can detect active inflammation in the gut. Find out more in **Tests and Investigations**.

Arthritis often occurs when Crohn's or Colitis is active but can develop before there are any signs of bowel disease or during times of remission.

WHICH JOINTS CAN BE AFFECTED?

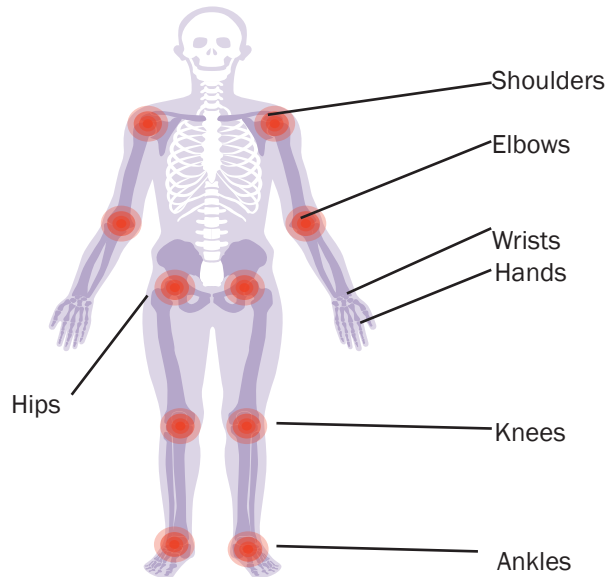
The joints that can be affected are either those of the central (axial) skeleton - mostly the spine, or the joints of the arms and legs (peripheral joints). Less commonly people can experience both.

The type of arthritis and enthesitis associated with Crohn's and Ulcerative Colitis is one of a group of disorders known as **Spondyloarthritis** (spondylo means spine).

The term for this type of arthritis associated with Crohn's and Colitis is **Enteropathic arthritis** (enteric means related to the gut).

Joints of the hands, feet, arms and legs (peripheral joints)

This form of arthritis (called peripheral spondyloarthritis) can affect:



This is more common in people with Crohn's Disease, particularly if it affects the colon (Crohn's colitis). It is also slightly more common in women. Symptoms include pain, stiffness and swelling in the hands, feet and legs.

This arthritis may affect many or few joints and is divided into **Type 1** and **Type 2** depending on how many joints are involved. Type 1 is slightly more common and usually active when Crohn's or Colitis is also active. Type 2 is usually independent of gut flare-ups.

Type 1

Type 1 peripheral arthritis affects around 4 to 8 in 100 people with Crohn's or Colitis. It is usually associated with gut activity, so if you have a flare-up of gut symptoms you may also experience a flare of joint problems.

Joints affected:

- Less than five joints - this is sometimes called pauciarticular (pauci meaning few and articular meaning relating to joints).
- Mainly large weight bearing joints of the lower limbs such as hips or knees
- Usually only on one side of the body.

People experience joint swelling, and this is often associated with other symptoms outside the gut, particularly erythema nodosum (swollen fat under the skin which causes red bumps) and uveitis (where the eye becomes red and inflamed and may be painful and sensitive to light).

Attacks of Type 1 peripheral arthritis usually have a limited course that lasts less than 10 weeks. Effective treatment of Crohn's or Colitis improves joint symptoms for people who have this type of arthritis. As the duration of joint inflammation is short the potential for permanent joint damage is much less.

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Type 2

Type 2 peripheral arthritis affects around 2 to 4 in 100 people with Crohn's or Colitis. The symptoms of this type of arthritis are independent of gut activity.

Joints affected:

- Five or more joints this is sometimes called polyarticular (poly meaning many).
- Knees and joints of the hands are affected and can include the small joints in the fingers and larger joints at the base of each finger which are important for grip and pinching.
- Likely to be on both sides of the body (symmetrical).

People experience joint swelling, and this is sometimes associated with eye problems such as uveitis.

The joint inflammation may last for months or even years and treatment of Crohn's or Colitis does not improve these joint symptoms. But if the inflammation in the joints is not controlled effectively it can go on to cause permanent joint damage.

Dactylitis

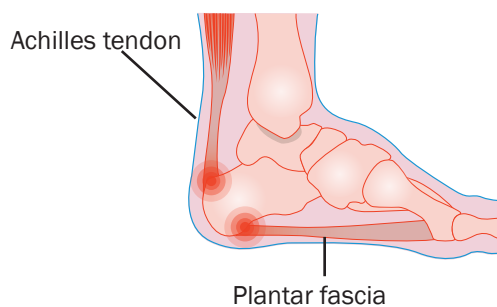
Around 2 to 4 in 100 people experience pain and swelling in the fingers and toes. They are sometimes described as looking "sausage like" which can be painful. This is called dactylitis (dactyl means finger).

Enthesitis

This is inflammation of the enthesis – where the tendon attaches to the bone.

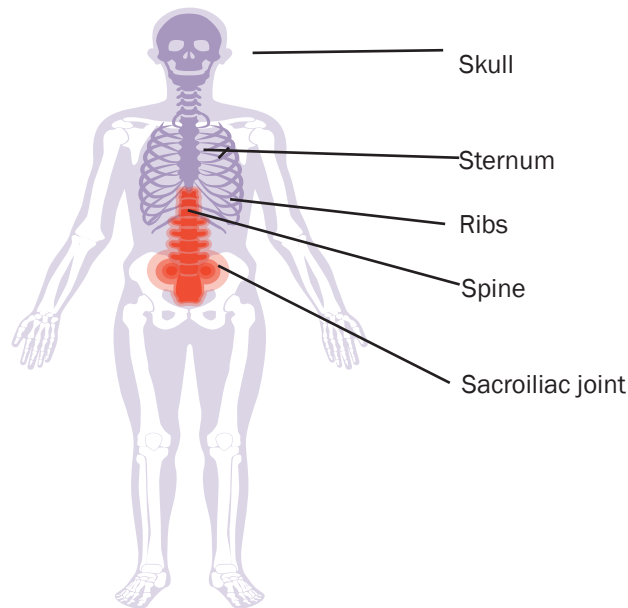
This often affects:

- the Achilles tendon attaching to the back of the heel bone,
- the plantar fascia attaches under the heel bone – this runs along the sole of the foot from the heel bone to the base of the toes
- the tendons attaching around the knee cap (patellar tendons).



This results in pain, stiffness and swelling that can limit movement of the joints usually in one direction of movement (arthritis tends to affect all direction of movement). Inflammation of the enthesis does not result in any permanent damage to joints.

JOINTS OF THE BACK (AXIAL JOINTS)



This arthritis causes pain, stiffness and swelling in the lower back and sacroiliac joints. It is very similar to another type of Spondyloarthritis, Ankylosing Spondylitis (AS). Around 3 in 100 people with Crohn's and Colitis are affected. It may be diagnosed before IBD, possibly months or years earlier, and can flare up independently of gut symptoms. Enthesitis is a common symptom of this pattern of arthritis.

There may be differences in where and how joints of the spine are affected:

- **Inflammatory back pain or spondylitis (spondylo means spine and -itis means inflammation)**

The main symptom is ongoing back pain. Onset is gradual, often over three months. The pain gets better with exercise but does not improve or gets worse with rest. Pain and stiffness are usually worse in the morning and at night. Many people wake up regularly during the night because of the pain. You may also have pain in the area around your buttocks. If the part of your spine attached to the ribs (thoracic spine) is affected this can produce a feeling of tightness in the chest and some discomfort on twisting or taking a deep breath.

- **Sacroiliitis**

Inflammation of one or both sacroiliac joints. These are the joints that connect the spine and pelvis (see diagram above).

Sacroiliitis can cause pain in your buttocks or lower back and extend down one or both legs, along the back of the thigh sometimes as far as the back of the knee.

The axial type of arthritis can be progressive and cause structural damage to the joints. This may eventually lead to a loss of some movement due to spinal fusion

HOW IS THIS DIFFERENT FROM OTHER FORMS OF ARTHRITIS?

The joint problems related to Crohn's and Colitis are a type of inflammatory arthritis known as Enteropathic arthritis. Enteropathic arthritis shares many characteristics with a group of disorders which are described by the general term of spondyloarthritis (spondylo means spine).

These include:

- Ankylosing Spondylitis
- Psoriatic Arthritis
- Reactive Arthritis

Other common forms of arthritis include:

Osteoarthritis. This is the most common of any form of arthritis and is a normal part of ageing. Joints become damaged over time because of the normal age related wear and tear process. The protective cartilage on the ends of the bones breaks down causing pain, swelling and problems moving the joint. It may affect one joint or many.

Rheumatoid arthritis. This is a different form of inflammatory arthritis. It is an autoimmune condition caused by the immune system attacking healthy tissue in the joint. Unlike the spondyloarthritis group it doesn't generally affect the spine or entheses. What triggers this is not yet known but the chemicals produced by this inflammation gradually cause the joint to lose its shape. It is usually more rapidly damaging to the affected joints than enteropathic arthritis. It can destroy joints and sometimes joint replacement surgery may be needed.

HOW ARE JOINT PROBLEMS DIAGNOSED ?

Diagnosis of joint problems is usually by clinical examination and a history of your symptoms. You may also have a blood test to look for signs of inflammation. The questions your doctor is likely to ask depends on where your joint problems are. X-rays are sometimes used to exclude other forms of arthritis. Imaging using ultrasound or Magnetic Resonance Imaging (MRI) can detect inflammation in the peripheral joints even at a very early stage.

Joints in your arms or legs

Diagnosis of joint problems in wrists, knees, elbows or hands and enthesitis is based on signs of inflammation and ruling out other forms of arthritis. Your doctor may ask you these questions to understand your symptoms:

- Do you have joint pain?
- When you wake up in the morning do you notice stiffness in your joints for up to 30 minutes?
- Have you, or do you have, swelling in your joints?

Joints in your back

- Do you have back pain?
- When you wake up in the morning, do you notice stiffness in your back for up to 30 minutes?
- Do you have, or have you had pack pain that wakes you up at night or interrupts your sleep?

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“

I found a course in pain management really effective in helping me to be kinder to myself and understand what I need to do to minimise my joint pains. ”

Alison, age 54
Diagnosed with Crohn's Disease in 2003

PAIN

Studies have shown that a large proportion of people with Crohn's and Colitis experience back pain and joint pains without inflammation (arthralgia). Back pain has been reported by 4 in 10 people and almost a third of people report knee pain. Almost a quarter of people have reported pain in the hand and finger joints and 2 in 10 shoulder pain.

FATIGUE

Fatigue is very common if you have Crohn's or Colitis, over three-quarters of people experience this during a flare-up. It is also related to joint problems. Researchers have found that people who have Crohn's or Colitis in remission but are experiencing joint symptoms are also more likely to have fatigue.

Fatigue can have a real impact on life and may be described as an overwhelming sense of continuing tiredness, lack of energy, or feeling of exhaustion that is not relieved after rest or sleep. It is far more than the ordinary and usual tiredness that anyone may feel after they have done a lot of physical or mental activity. Find out more in **Fatigue and IBD**.

WHICH HEALTH PROFESSIONALS CAN HELP?

A rheumatologist specialises in the diagnosis and treatment of arthritis and related conditions. Tell your IBD team if you are experiencing pain or swelling in any of your joints. Or talk to your GP if they are they are the most accessible health care professional and they can refer you to a rheumatologist.

Ideally a team including a rheumatologist, gastroenterologist and physiotherapist will work with you to manage your IBD and joint problems. Some studies have suggested that many people do not get a referral to a rheumatologist. If you have problems with your joints, you can ask to see a rheumatologist.

HOW DO JOINT SYMPTOMS RELATE TO GUT SYMPTOMS?

Large joint arthritis is usually associated with active Crohn's or Colitis, if you are having a flare-up of in your gut then your joint problems are likely to be worse. Ankylosing spondylitis and small joint arthritis flare up independently of gut symptoms.

Because of the different patterns of activity – there are different treatment approaches depending on the type of arthritis you have and if you are having a flare-up of your gut problems.

WHAT TREATMENTS ARE THERE?

Drug treatments, exercise and physiotherapy can all be helpful in managing symptoms of arthritis. One of the main targets of therapy is controlling inflammation in the gut. If this is well controlled joint pain will often improve in peripheral arthritis. Many of the drugs used to treat Crohn’s and Colitis are also used to treat arthritis including infliximab, adalimumab, golimumab and ustekinumab.

The aims of treatment are to:

- reduce inflammation of the joints
- relieve pain
- prevent any lasting disability.

Treatment approach depends on a few factors:

- is Crohn’s or Colitis active or in remission?
- where is the joint problem?

“When you find the exercises that help and work for you, doing them once or twice a day can have a really big effect on relieving pain stiffness and discomfort”

Nadia, age 23
Diagnosed with Inflammatory Bowel Disease Unclassified in 2017

Pain and swelling of joints in your back - Axial Spondyloarthritis (AxSpA) -

Ideally treatment will be managed with a rheumatologist and focused on exercise. This often includes intensive input from a specialist physiotherapist,

Non-steroidal anti-inflammatory drugs (NSAIDS) including ibuprofen, can be used in the short- term – usually less than 21 days. Use over a longer time can increase the risk of a flare-up of IBD. Where NSAIDS have not been effective Anti-Tumour Necrosis Factor (Anti-TNF) therapy may be effective such as infliximab, adalimumab or golimumab. Find out more in our **Drug Information Sheets**

A physiotherapist will work with you to create an exercise plan that can ease symptoms such as stiffness and pain.

The exercise plan is likely to include:

- stretching, strengthening, and exercises to help your posture
- deep breathing
- Pilates
- exercises to move and stretch the different parts of your back and neck
- aerobic exercise (exercise that makes you breathe harder than normal, for example, walking, swimming and cycling).
- hydrotherapy (exercise in water).

	Crohn’s or Colitis active	Crohn’s or Colitis in remission
Physical activity physiotherapist will work with you	Yes	Yes
Non-steroidal anti-inflammatory drugs (NSAIDS) short-term only e.g Ibuprofen, celocoxib, ectoricoxib	No	Yes
Anti-TNF therapy infliximab, golimumab, adalimumab	Yes	Yes

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Pain and swelling in hands, feet arms or legs - Peripheral Spondyloarthritis (pSpA)

Treatment of underlying gut inflammation is often enough to treat Type 1 arthritis. Short-term non-steroidal anti-inflammatory drugs or injections into the joint can provide relief of the symptoms. Steroid tablets can also be effective but are usually used for as short a time as possible.

Where symptoms continue sulfasalazine and methotrexate are often prescribed. If symptoms do not respond to these treatments, Anti-Tumour Necrosis Factor (anti-TNF) therapy may be effective. Find out more in our **Drug Information Sheets**

	Crohn's or Colitis active	Crohn's or Colitis in remission
Steroids local injection or tablets	Yes	Yes
Sulfalazine or methotrexate	Yes	Yes
Non steroidal anti inflammatory drugs (NSAIDS) short-term only e.g ibuprofen, celecoxib, ectoricoxib	No	Yes
Ant TNF-therapy infliximab, golimumab, adalimumab	No	Yes

Enthesitis or dactylitis

Steroid injections into the local area affected.

Sacroiliitis

Steroid injections into the local area affected.

OTHER CAUSES OF JOINT PROBLEMS

Not all the joint problems you experience may be related to Crohn's or Colitis. Side effects of some drugs used in IBD treatment can affect the joints. Other causes include injury, infection or other types of arthritis, so careful investigation is important.

Drug side effects

- Infliximab – common side effects can include joint pain, muscle pain and back pain.
- Steroids – stopping steroids too quickly can cause joint pain. Long term steroid use can also damage the joints (especially the hip joint) – see osteonecrosis.
- Azathioprine – joint pain is often associated with muscle pain. It usually appears in the first three months of therapy. Switching to mercaptopurine is usually effective.
- An allergic reaction to 6-mercaptopurine and azathioprine can produce joint pain which starts suddenly with high fever. This usually occurs one or two days after starting the drug, so it is easy to recognise that this is related to starting the medication. Stopping the treatment will make the pain go away quickly
- A reaction (Lupoid reaction) to anti-TNF therapies means that some people develop a side effect associated with joint pain. It resolves quickly when the anti-TNF therapy is stopped.
- Vedolizumab - some studies have suggested it may be useful in treating joint inflammation – but others suggest it could increase joint pain.

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If you have started a new medication and you experience joint pain – check the Patient Information Leaflet or **Drug information sheet** to see if this could be a side effect and tell your IBD team.

Osteonecrosis. This is a rare but serious side effect that can produce joint pain. It happens when steroids cause problems with blood supply to a bone, often to the top of the thigh bone causing damage to the hip joint, rarely to the bottom of the thigh bone causing damage to the knee joint. This can result in the death of the bone and permanent joint damage requiring surgery.

Injury. Joint pain can be due to injury such as overusing or overstretching.

Gout. This is caused when uric acid crystals are deposited in the joints. It causes sudden and painful attacks usually in the joints of the foot, knee, ankle, hand and wrist. It is very common in the big toe.

Infection. Inflammation of a joint can be caused by bacterial infection, this is known as septic arthritis. Bacteria can enter a wound and travel through the bloodstream to an affected joint or may infect a joint directly after an injury or during surgery. You are more at risk if you are taking immunosuppressant medication to treat your Crohn's or Colitis.

HOW CAN JOINT PROBELMS AFFECT YOUR LIFE?

Having joint problems can have a real impact on your life. They can limit mobility and cause pain. This can mean that daily activities including work, exercise and social life are affected. Some people find that joint problems become the most dominant issue either for short periods or over the longer term. But there are effective ways to treat and manage joint problems with the support of your IBD team and rheumatologist.

People with inflammatory joint problems, have been shown to be at increased risk of depression. There are many symptoms of depression. But if you feel sad, hopeless or have lost interest in things you used to enjoy, and this has persisted for weeks or months and interferes with your work, family or social life talk to your IBD team, GP or someone you trust.

WHAT CAN I DO?

Actively manage your Crohn's or Colitis

Taking medications and working with your IBD team to actively manage your condition will put you in the best place to cope with the additional joint problems. Getting into a routine of taking your medicines can be challenging, but when drugs have an immediate effect on your symptoms, you may find it easy to remember to take your doses exactly as instructed. Once you feel better and your symptoms are on your mind less, you may forget the odd dose. Or, you may be tempted to stop taking your medication altogether, thinking you don't need it now that you feel better.

Continuing to take medication even when you are well reduces the chance of a flare-up. Repeated flares not only cause ongoing, troublesome symptoms, but increase the risk of irreversible damage to the gut which may lead to complications such as narrowing (strictures), or abscesses. Find out more in **Taking Medicines.**

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Stop smoking

Smoking has been found to be a high-risk factor for arthritis. See our information on **Smoking and IBD**.

Try gentle exercise

Exercise can help joint problems and improve mood. You can try different types of exercise and the time of day that you do them such as in the morning after getting up, when stiffness tends to be worst. This can be quite a trial and error process but finding the right thing for you is worth it.

Eat well

Eating a healthy balanced diet that works for you will ensure you get all the nutrients you need.

This includes:

- fruit and vegetables
- starchy foods (such as cereals, potatoes, rice, bread and pasta)
- some milk and dairy products
- some protein foods (meat, fish, eggs and pulses)

You can talk to your IBD team if you are finding it hard to manage foods from all five groups. Find out more in **Food and IBD**.

Look after your joints

There are a few ways you can protect your joints by reducing the stresses on them. Here are some ideas:

- use larger joints as levers - try using your shoulder to open a heavy door
- Spread the weight of an object – for example use a rucksack rather than a bag on one shoulder
- Be aware of your body position, it can help to move around.

Get the help you need

If you have Crohn's or Colitis you may be covered by the Equalities Act at work – find out more in Employment and IBD. You can work with your employers to make changes including:

- starting later if your joint problems are worse in the morning
- using a back rest and/or/foot support
- using equipment or technology that could make tasks easier.

Tell your IBD team if you have pain in your joints

HELP AND SUPPORT FROM CROHN'S & COLITIS UK

We offer more than 50 publications on many aspects of Crohn's Disease, Ulcerative Colitis and other forms of Inflammatory Bowel Disease. You may be interested in our comprehensive booklets on each disease, and other topics such as:

- Bones
- Employment and IBD: a guide for employers and Employment and IBD: a guide for employees
- Fatigue and IBD
- Food and IBD
- Living with IBD
- Smoking and IBD
- Tests and investigations
- Drug information sheets

All publications are available to download from crohnsandcolitis.org.uk/quick-list. Health professionals can order booklets in bulk by using our online ordering system. If you would like a printed copy of a booklet or information sheet, please contact our Helpline - a confidential service providing information and support to anyone affected by Crohn's or Colitis. Our team can:

- help you understand more about IBD, diagnosis and treatment options
- provide information to help you to live well with your condition
- help you understand and access disability benefits
- put you in touch with a trained support volunteer who has personal experience of IBD.

Call us on 0300 222 5700 or email helpline@crohnsandcolitis.org.uk
See our website for LiveChat: crohnsandcolitis.org.uk/livechat

Crohn's & Colitis UK Forum

This closed-group community on Facebook is for everyone affected by IBD. You can share your experiences and receive support from others at: [facebook.com/groups/CCUKforum](https://www.facebook.com/groups/CCUKforum)

Crohn's & Colitis UK Local Networks

Our Local Networks of volunteers across the UK organise events and provide opportunities to get to know other people in an informal setting, as well as to get involved with educational, awareness-raising and fundraising activities. Visit crohnsandcolitis.org.uk/local-network to find your nearest network.

Help with toilet access

If you become a member of Crohn's & Colitis UK, you will get benefits including a Can't Wait Card and a RADAR key. This card shows that you have a medical condition, and combined with the RADAR key will help when you need urgent access to the toilet when you are out and about. See our website for further information: crohnsandcolitis.org.uk/membership or call the membership team on 01727 734465.

FURTHER HELP


Versus Arthritis


versusarthritis.org

National Ankylosing Spondylitis Society

<https://nass.co.uk/>

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ABOUT CROHN'S & COLITIS UK

We are Crohn's & Colitis UK, a national charity fighting for improved lives today – and a world free from Crohn's and Colitis tomorrow. To improve diagnosis and treatment, and to fund research into a cure; to raise awareness and to give people hope, comfort and confidence to live freer, fuller lives. We're here for everyone affected by Crohn's and Colitis.

This publication is available for free thanks to the generosity of our supporters and members. Find out how you can join the fight against Crohn's and Colitis: call 01727 734465 or visit crohnsandcolitis.org.uk.



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Joints - what you need to know
Interim review: January 2019
Next planned review: 2022

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