

Patient information from BMJ

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Septic arthritis

Septic arthritis is an infection in a joint, most commonly the knee or hip. It is a medical emergency.

Septic arthritis can usually be treated successfully. But it can lead to serious illness and even death, especially if not treated quickly. If you think that you have symptoms, **seek medical help straight away**.

What is septic arthritis?

We tend to think of arthritis as a long-term condition that develops gradually, usually as we get older. But septic arthritis is different from other forms of arthritis. The symptoms come on very quickly and need urgent treatment.

Septic arthritis happens when a joint becomes infected. This causes symptoms including swelling, stiffness, and severe pain.

The hip and knee are the joints most commonly affected.

Septic arthritis is a medical emergency. If you think that you or someone you know has symptoms, **seek medical help straight away**.

Treatment can help most people. But delaying treatment can cause permanent joint damage and even death.

Septic arthritis is especially dangerous in older people. But even in younger people, about 10 in 100 people with the condition will die.

What causes septic arthritis?

An infected joint can be caused by many things, including an injury, or an infection that travels to the joint in the blood.

Some things make it more likely to happen. Doctors call these things **risk factors**. Risk factors for septic arthritis include:

- An existing problem with your joints, such as osteoarthritis or rheumatoid arthritis

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- Having a prosthetic (artificial) joint
- Being an intravenous (injecting) drug user
- Taking medicines that affect your immune system: for example, some medicines for an autoimmune condition, such as rheumatoid arthritis
- Being HIV positive
- Being a heavy drinker
- Having diabetes
- Having had recent joint surgery
- Having an infection, especially a skin infection, and
- Tick bites.

Septic arthritis can also be caused by a gonorrhoea infection, and by tuberculosis.

What are the symptoms?

The main symptoms of septic arthritis include:

- A swollen joint. This is usually the hip or knee
- Severe pain in the joint that came on fairly quickly. If your knee is affected you will probably be unable to walk
- Stiffness in the joint. You might not be able to bend it
- Heat and redness around the joint, and
- Fever and chills.

If your doctor suspects that your symptoms are caused by septic arthritis, they will take a sample of fluid from around the joint, using a needle. This fluid will then be tested for infection.

Your doctor will also ask you questions about your medical history. For example, they might ask if you:

- Have recently had an infection or been injured
- Have recently had surgery
- Have diabetes
- Have a history of joint problems, and
- What medicines you are taking.

What treatments are available?

Test results can take time, but septic arthritis is an emergency. So your doctor will not wait for your test results before starting treatment.

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There are two main treatments for septic arthritis. These are **antibiotics** and **draining fluid** that has built up around the joint.

Antibiotics

Antibiotics are used to kill the bacteria that caused the infection. You will be admitted to hospital and given antibiotics directly into a vein (intravenously).

You will need to be given antibiotics in this way for several days, and probably for up to two weeks. But if it's safe for you to be given antibiotics intravenously closer to home, you might not have to stay in hospital for the whole time.

After being given antibiotics into a vein for up to two weeks, you will probably need to take a course of antibiotic tablets for several weeks more.

Draining fluid around the joint

Your doctor will use a needle to drain fluid that has built up around the joint. You might need to have this done more than once if fluid builds up again.

Draining the fluid helps in several ways: it physically removes infection; and it reduces painful swelling in and around the joint.

If you still have pain after the joint is drained, you can take simple **painkillers**, such as paracetamol or ibuprofen.

If your **hip joint** has been affected, you will need an ultrasound scan to help the doctor to find the best place to drain the fluid. You might also need surgery to remove some infected tissue.

If the infected joint is **prosthetic** (artificial) you should be referred to a specialist in prosthetic joints.

What to expect in the future

Most people recover well with treatment. But septic arthritis is a serious condition. More than 10 in every 100 people will die from it. Older people and those with existing joint problems are especially vulnerable.

So it's vital to follow your doctor's advice about what to do after you have treatment.

If you are given antibiotic tablets to take home, it's important to finish the course as advised by your doctor. They will want to follow up with you a little while after your treatment, to check that you are okay.

You should also keep a close eye on the affected joint. If your symptoms return, **get medical help straight away**.

If you have septic arthritis linked to gonorrhoea, you will need to inform your sexual partners, so that they can have treatment.

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