

Reactive Arthritis / Reiter's Syndrome

Reactive arthritis means that you develop inflammation in joints after you have had an infection in some other part of the body. Other symptoms usually develop in addition to the arthritis. Symptoms commonly last 3-6 months. In some cases the arthritis persists long-term. Anti-inflammatory medicines usually ease the pain. Other treatments are sometimes needed.

What is reactive arthritis?

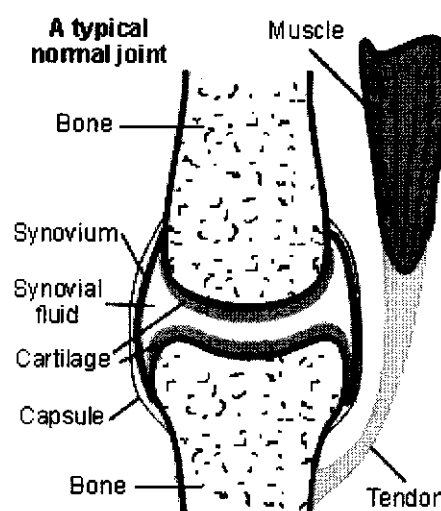
Arthritis means inflammation of one or more joints. Reactive arthritis is caused when a joint 'reacts' to an infection elsewhere in the body. The infection which triggers reactive arthritis is not actually in the joint, but is usually in the gut or urethra.

Understanding joints

A joint is where two bones meet. Joints allow movement and flexibility of various parts of the body. The movement of the bones is caused by muscles which pull on tendons that are attached to bone.

Cartilage covers the end of bones. Between the cartilage of two bones which form a joint, there is a small amount of thick fluid called synovial fluid. This fluid 'lubricates' the joint which allows smooth movement between the bones.

The synovial fluid is made by the synovium. This is the tissue that surrounds the joint. The outer part of the synovium is called the capsule. This is tough, gives the joint stability, and stops the bones from moving 'out of joint'. Surrounding ligaments and muscles also help to give support and stability to joints.



How does reactive arthritis occur?

It is not clear why 'reactive' symptoms develop in areas of the body that are not infected. When you have an infection your immune system makes antibodies and other chemicals to get rid of the infecting germ (bacteria, virus etc). The 'battle' between the immune system and infecting germs can create other chemicals and 'debris' such as fragments of dead germs.

One theory is that some of this 'debris' may get into the bloodstream. It may then lodge in certain areas of the body such as the synovium of joints. This may trigger the inflammation in the joint.

Infections that can trigger reactive arthritis include:

- **Infection of the urethra.** This is also called urethritis. It is the most common trigger. About 1 in 100 people who have an infection of the urethra also develop reactive arthritis. The urethra is the tube that passes urine out from the bladder. Some sexually transmitted infections can cause urethritis. Infection with a sexually transmitted bacteria called chlamydia is the most common. Symptoms of the infection include a discharge from the urethra and pain when you pass urine.
- **Infection of the gut.** This is also called gastroenteritis and is the other common trigger. Various bacteria can infect the gut and cause vomiting and/or diarrhoea. For example, shigella, salmonella, campylobacter, and yersinia. These infections are often caused by 'food poisoning'. About 1 in 100 people who have a gut infection with one of these bacteria also develop reactive arthritis.
- **Infection with *Chlamydia pneumoniae*.** This bacterium can cause a respiratory tract infection (causing a cough or a lung infection) and can sometimes be a trigger.
- **Viral infections** that can cause a sore throat, cough or skin rash are sometimes the trigger. The infection may be mild and soon forgotten, but it may still trigger an arthritis.
- **No triggering infection** can be found in about 1 in 10 cases.

Sometimes people with HIV infection can get reactive arthritis. This is likely to be because both conditions can be transmitted sexually rather than HIV infection acting as a trigger for reactive arthritis.

Note: the triggering infection is not within the joint itself. An infection within a joint is different and is called septic arthritis (see separate leaflet called *Septic Arthritis* for more details).

Who gets reactive arthritis?

Reactive arthritis is uncommon. It most commonly affects men aged between 20 and 40. This is because they are most at risk of urethral infection from sexually transmitted diseases. However, it can occur at any age and in anyone. We are all at risk of getting a gut infection from food poisoning which may trigger a reactive arthritis.

There is a genetic link too. About 1 in 14 people in the UK have a gene called HLA-B27. About three out of four people who have reactive arthritis have this gene. So, this gene seems to make you more likely to develop reactive arthritis if you have a 'triggering' infection.

What are the symptoms of reactive arthritis?

Symptoms usually develop 2-4 weeks after the infection. Often after the 'triggering' infection has gone. For example, you may have had a bout of diarrhoea and vomiting a couple of weeks ago which you may even have forgotten about.

Joint symptoms

These usually develop fairly quickly, over a day or so. In some cases they develop more gradually.

- One or more joints may be affected.
- The joints in the legs such as knees, ankles and toes are the ones most commonly affected. Inflammation of joints at the base of the spine is also common which causes low backache and buttock pain. However, any joint can be affected.
- Stiffness may develop at first before any pain.
- Joints near the skin surface such as the knee may become quite swollen.
- The severity of pain and swelling can vary from mild to severe.
- The tendons and ligaments next to some joints may also become inflamed. The most common site for this is the Achilles tendon at the back of the ankle which may become painful. If the ligaments in a finger or toe become inflamed at the same time as the joints, the whole finger or toe may look swollen. This may then look like a 'sausage' finger or toe.

Other symptoms

In addition to joint symptoms, one or more other symptoms develop in up to half of cases. These develop at the same time, just before, or just after the joint symptoms.

- Urethritis (inflammation of the urethra). Urethritis can cause a discharge which you may see coming from the penis in men, or from the vagina in women. You may also have pain when you pass urine.
Note:
 - The triggering infection may be an infection of the urethra which causes urethritis. In this case the urethritis comes before the arthritis and other symptoms.
 - Inflammation of the urethra can also develop as a 'reaction' to a gut infection as part of the syndrome of 'reactive arthritis'. In this case, no germs are found in the urethra and it may develop after, or at the same time as, the joint symptoms.
- Conjunctivitis (inflammation of the front of the eye). This can make your eye look red. But, it is not very painful, does not affect vision, and is not serious.
- Uveitis (inflammation of a deeper part of the eye). This can cause redness of the eye, pain and blurring of vision. It is more serious than conjunctivitis.
- A scaly skin rash on the hands and feet (keratoderma blennorrhagica) occurs in a small number of cases.
- Inflammation and redness at the end of the penis (circinate balanitis) sometimes occurs. But, it is not usually painful or serious.
- Mouth ulcers, which are usually painless.
- Changes to your nails, including thickening and crumbling, are a rare symptom.
- You may have a fever (high temperature).
- Weight loss may be a feature.

- Tiredness can occur.
- Rarely, heart or kidney problems can develop.

Do I need any tests?

No test can confirm that you have reactive arthritis. The diagnosis is based on the typical symptoms which follow an infection. However, tests including blood tests and X-rays may be done to rule out other causes of arthritis such as gout or rheumatoid arthritis.

Also:

- You may be asked to give a stool sample (sample of faeces) if a gut infection is suspected as the trigger. But, a 'triggering' gut infection may be gone before the arthritis develops.
- You (and your sexual partner) may be referred to a genito-urinary clinic to check for sexually transmitted infections if urethritis is suspected as the trigger. You should avoid sexual intercourse (including oral sex) until you and your partner have completed treatment and follow-up for any genital infection that has been found.
- Other tests for triggering infections may be done if any are suspected.
- You may be referred to an eye specialist if your doctor suspects that you have uveitis.

What is the treatment for reactive arthritis?

Treating any triggering infection

- If the trigger is an infection of the urethra, a short course of antibiotics will usually be advised.
- Gut infections have often cleared on their own by the time the reactive arthritis develops. But, if a stool sample shows that a germ is still present then treatment may be advised to clear it.

But note: clearing the triggering infection does not usually alter the course of the arthritis. Once the arthritis is triggered, it will usually run its course well after any infection has gone. However, some studies suggest that long-term treatment with antibiotics may help to reduce the length of the arthritis in some cases, particularly if chlamydia is the triggering infection. The use of long-term treatment with antibiotics in reactive arthritis is currently being investigated.

Treating the joint symptoms

- Anti-inflammatory painkillers ease pain and stiffness. There are many different brands and your doctor will usually prescribe one. There is no 'best buy' and some people find that one type suits them better than others. So, if one does not suit at first, another may be fine. See separate leaflet called '*Anti-inflammatory Painkillers*' for more details.
- Some joints become very swollen. The fluid may be removed by a doctor with a needle and syringe which can ease the pain.
- An injection of steroid medicine directly into a joint is an option if it becomes badly inflamed. Steroids are good at reducing inflammation. Sometimes steroid tablets may be taken by mouth if symptoms are particularly bad.
- You may need to rest very swollen joints until the symptoms ease. But as soon as you can, it is important to get the affected joints moving and exercising again.
- Physiotherapy helps to keep the joints moving. It also helps to keep the muscles around affected joints strong if you are not using a joint very much.
- If symptoms persist for more than a few months, or if other treatments have not worked, then you may be advised to take a 'disease-modifying' medicine. These aim to reduce the damaging effect on the joints. There are several, for example, sulphasalazine and methotrexate. These medicines have no immediate effect on pain or inflammation. They take several weeks to work. But, they may help to prevent long-term joint damage if symptoms persist.

Treating other symptoms

- Conjunctivitis usually goes without any treatment.
- Uveitis may need steroid eye drops to suppress inflammation in the eye.
- Balanitis usually needs no treatment, but a mild steroid cream may be needed in some cases.
- Paracetamol can reduce fever.
- Other symptoms are rare and may need specialist advice if they develop.

What is the outlook (prognosis)?

At the onset of the disease, it is not possible to predict how long it will last.

- In some cases, the symptoms last just a few weeks.
- In most cases the symptoms last 3-6 months and then go completely without leaving any long-term problem. After the arthritis (swelling and inflammation) has gone, it is quite common to have niggly pains which persist for several further months.
- In about 1 in 3 cases the arthritis lasts longer than six months. It can sometimes last for years. If joint inflammation persists for six months or more, you are at risk of joint damage which may cause long term pain and disability. It is in these cases where disease modifying medication may be used.

In some people who make a complete recovery, the symptoms return months, or even years, after the first episode. This may be a reaction to a new infection, or symptoms may just a flare-up for no apparent reason. So, if you have had one episode of reactive arthritis, you should take particular care to protect against sexually transmitted diseases and food poisoning which may trigger a further episode.

What is Reiter's syndrome?

Reiter was a German doctor who was first to notice that some people had arthritis, urethritis and conjunctivitis at the same time. This 'triad' of symptoms became known as 'Reiter's syndrome'. We now know that reactive arthritis often, but not always, has these three symptoms. And, in some cases there are additional symptoms (described above). But, the term Reiter's syndrome has stuck and:

- Some people use the term Reiter's syndrome for all cases of reactive arthritis.
- Some people use the term Reiter's syndrome only when the three 'classical' symptoms of urethritis, arthritis and conjunctivitis occur.
- Some people use the term Reiter's syndrome to mean a reactive arthritis which follows after a sexually transmitted infection.

So, the more general term of 'reactive arthritis' is probably best to use for all of these situations.

Further help and information

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References

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