

Rheumatic fever



Rheumatic fever has decreased in frequency over the last 100 years with improvement in living conditions, hygiene and the introduction of antibiotics. However, sporadic cases occur in both urban and rural areas and in children with varying socioeconomic backgrounds.

Rheumatic fever is a condition that occurs in children, primarily between the ages of five and 18 years, after untreated infections caused by certain types of group A streptococcus bacteria. Certain children may be prone to an immune reaction to the bacteria that develops after a group A strep infection, such as throat infection or tonsillitis. Rheumatic fever is also more common in cold and humid climates or in high altitude areas.

What are the symptoms?

Children with rheumatic fever can develop a variety of symptoms but invariably have a fever and are weak and pale. Other possible symptoms include joint pain and swelling, which is seen in 80 per cent of patients. This pain and swelling can switch from one joint to another and often involves more than five joints such as knees, ankles, elbows, wrists and shoulders. The arthritis usually gets better with treatment.

The heart is seriously affected by the immune response of rheumatic fever. Inflammation of the heart valves and the heart muscle itself can cause a fast heart rate, a rhythm disturbance, chest pain and difficulty breathing. The mitral and aortic valves are the most commonly affected areas in the heart.

Mood swings can accompany chorea, which is a term describing abnormal involuntary movement of the face and limbs that often causes handwriting to deteriorate. Chorea is more common in adolescent girls and usually resolves after several weeks.

Painless, firm nodules under the skin of the knees, elbows and wrists are seen less commonly, but can be

associated with heart involvement. A typical rash that has a red border and a clear centre can sometimes be seen over the abdomen, chest, arms and thighs. This non-itchy rash only lasts a few days. Nosebleeds can also frequently occur.

How do you treat rheumatic fever?

The most important treatment involves preventing rheumatic fever at the outset by ensuring that you take your child with tonsillitis to their doctor for a diagnostic throat swab and prescription of appropriate antibiotics. When rheumatic fever occurs, treatment involves eradicating the bacteria and preventing further exposure to the bacteria. Regular treatment of group A strep infections usually involves a course of antibiotics such as penicillin.

Once your child has had it, they are at for repeated episodes when exposed to group A strep bacteria. Ongoing preventative medication can help prevent the recurrence of symptoms. This can be achieved with regular, daily oral antibiotics until the age of 21 or at least five years after the last episode of rheumatic fever. Alternatively, regular intramuscular penicillin injections every few weeks can be administered.

Arthritis often responds well to anti-inflammatory medications. If your child's heart has been affected, they will require treatment with oral steroids to decrease the inflammatory damage to the heart. However, some damage to the heart might remain and your child will require ongoing evaluation and monitoring by a cardiologist. Sometimes they might require medication or surgery in adolescence or adulthood.