WHAT IS RHEUMATIC FEVER
What is rheumatic fever?
The number one cause of rheumatic fever is strep throat. However, it has also been associated with scarlet fever. The body will sometimes attack its own tissues after it’s been infected with the strep throat bacteria. This reaction will cause widespread inflammation through the body that is the basis for all of the symptoms of rheumatic fever.

What are the symptoms of rheumatic fever?
Rheumatic fever is a complication of strep throat. If your child has any of the following symptoms, a strep test is needed:

- Sore throat or sore throat with tender and swollen lymph nodes
- Rash
- Trouble swallowing
- Thick, bloody discharge from nose

A wide variety of symptoms are associated with rheumatic fever. An individual with the illness could experience a few, some, or most of the symptoms below. Symptoms usually appear two to four weeks after your child has been diagnosed with strep throat.

Common symptoms include:

- Fever
- Painful/tender joints in the ankles, knees, elbows, and wrists
- Pain in one joint that moves to another joint
- Red, hot, swollen joints
- Small nodules (bumps) under the skin that don’t hurt
- Chest pain
- Rapid fluttering or pounding chest palpitations
- Fatigue
- Nose bleeding
- Stomach pain
- Shortness of breath
- Short attention span
- Sweating
- Vomiting
- Flat, slightly raised, ragged rash
- Jerky uncontrollable hand, feet, face movements
- Outbursts of crying or inappropriate laughter
The following situations require that a person seek medical advice and/or attention:

- Fever that is over 100 °F in new-borns to 6-week-old infants
- Fever that is 102 °F or higher in babies 6 weeks to 2 years old
- Fever that is 103 °F or higher in children age 2 years or older
- Fever that lasts more than three days

How is rheumatic fever diagnosed?
The doctor will first want to get your child’s medical history, including his or her current symptoms. The doctor will also want to know if your child has had a recent bout of strep throat. Next, a physical exam will be given that includes the following:

- checking joints for inflammation
- Looking for rash or skin nodules (hard bumps beneath the skin)
- Listening to heart to check for abnormalities
- Movement tests to determine nervous system dysfunction
- Blood tests for strep bacteria
- EKG (Echocardiography (uses sound waves to produce image of the heart)

Effective treatments for rheumatic fever
The most effective way to make sure that your child does not contract rheumatic fever is to make sure all strep bacteria are killed. In addition, doctors will treat the symptoms and control resulting inflammation. This can include any of the following.

Factors that can increase the risk of catching rheumatic fever
Certain factors can increase the chances of your child developing rheumatic fever. These include:

- Family history—certain genes make it more likely to develop rheumatic fever
- Type of strep throat bacteria present—certain strains are more likely to lead to rheumatic fever than others
- Environmental factors present in developing countries, including poor sanitation, overcrowding, and lack of clean water.
How to prevent rheumatic fever

The best way to prevent rheumatic fever is to fully treat all strep throat and scarlet fever infections. Make sure your child completes all prescribed doses of medication. In addition, schedule a follow-up visit to ensure that your child is free from the strep bacteria antibodies.

Complications associated with rheumatic fever

Once they develop, the symptoms of rheumatic fever can last for months. Rheumatic fever can cause long-term complications in certain situations. One of the most prevalent complications is rheumatic heart disease. Other heart conditions include:

- Valve stenosis—a narrowing of the valve
- Valve regurgitation—a leak in the valve that causes blood to flow in the wrong direction
- Heart muscle damage—inflammation can weaken the heart muscle, which can decrease the heart's ability to pump blood effectively
- Atrial fibrillation—irregular heart beat (in the upper chambers)
- Heart failure—heart can no longer pump blood to all parts of the body

Outlook

The long-term effects of rheumatic fever can be disabling if your child had a severe case. Some of the damage caused by the illness might not show up until years later. Be aware of long-term effects as your child grows older. Children who suffer from the long-term damage related to rheumatic fever may be eligible for special education and other related services.

What is rheumatic heart disease?

Rheumatic heart disease is a condition in which permanent damage to heart valves is caused by rheumatic fever. The heart valve is damaged by a disease process that generally begins with a strep throat caused by bacteria called Streptococcus, and may eventually cause rheumatic fever.

Rheumatic heart disease describes a group of short-term (acute) and long-term (chronic) heart disorders that can occur as a result of rheumatic fever. One common result of rheumatic fever is heart valve damage. This damage to the heart valves may lead to a valve disorder. Every part of the heart, including the outer sac (the pericardium), the inner lining (the endocardium) and the valves may be damaged by inflammation caused by acute rheumatic fever.
However, the most common form of rheumatic heart disease affects the heart valves, particularly the mitral valve. It may take several years after an episode of rheumatic fever for valve damage to develop or symptoms to appear.

**Symptoms**

Symptoms of heart valve problems, which are often the result of rheumatic heart disease, can include:
- Chest pain,
- Excessive fatigue,
- Heart palpitations (when the heart flutters or misses beats),
- A thumping sensation in the chest,
- Shortness of breath,
- Swollen ankles, wrists or stomach.

**Treatment of rheumatic heart disease**

If heart damage from rheumatic fever is identified in childhood or young adulthood, daily antibiotics may be required until the age of 25 or 30, to help prevent recurrence of rheumatic fever and avoid the development of infective bacterial endocarditis, an infection of the heart valves or lining of the heart. Additional treatment will depend on the type of heart damage.