

Rheumatic Fever and the Heart

What is rheumatic fever?

Rheumatic fever is a disease caused by a reaction to streptococcus bacteria, the same germ that causes strep throat. The disease can damage your heart.

How does it occur?

Rheumatic fever causes an over-reaction of the immune system. The immune system is your body's defense against infection. Rheumatic fever may happen when the body attacks some body tissues as well as the strep germ. Rheumatic fever can affect the heart, the joints, the skin, and the nervous system. Heart problems may show up right away or may appear many years after the original infection. Rheumatic fever often affects the joints of the legs first. In some cases, only the heart may be affected.

Most people with strep throat do not get rheumatic fever. You are more at risk for rheumatic fever if you have had several strep infections.

What are the symptoms?

The symptoms usually begin 2 to 3 weeks after a sore throat. There is often swelling and pain in the large joints of the body (knees, ankles, elbows, and wrists). The symptoms may move from joint to joint. Some people develop uncontrollable twitches or movements of muscles in the face, arms, and legs. The twitches and joint pains usually disappear after a few weeks without any long-term damage.

A few people may develop pink or light red, nonitching blotches on the skin or small bumps under the skin on their elbows or knees. Almost all people with rheumatic fever will have some fever and feel tired and achy. Some may have abdominal pain. Rheumatic fever usually gets better after a few weeks.

What heart problems can rheumatic fever cause?

The biggest problem caused by rheumatic fever is low-level inflammation of the heart valves. This may continue for many years and scar the heart valves. Over time, the heart valves may have trouble opening or closing properly. One valve or several valves may be affected.

The heart muscle cells may be weakened, which affects the

heart's ability to pump. The tissue sac that surrounds and protects the heart may be inflamed (a condition called pericarditis). Pericarditis usually causes chest pain. Rarely, it can cause fluid to build up around the heart. The pressure caused by this fluid may make it harder for the heart to pump blood.

Rheumatic fever can interfere with the electrical signals in the heart, temporarily causing the heart to beat too slowly.

How is it diagnosed?

Your healthcare provider will ask about your symptoms, and whether you have had a sore throat recently. He or she will examine your joints and will look for skin rashes and small bumps under your skin.

You will probably have a blood test to check for antibodies to the strep germs. A record of your heart's activity, called an electrocardiogram, may show changes from the normal pattern. An ultrasound test, called an echocardiogram, may help diagnose valve problems.

How is it treated?

If you have rheumatic fever, your healthcare provider may recommend bed rest until you no longer have a fever. You will probably need an antibiotic to kill any strep germs still present. Aspirin or other drugs may help relieve symptoms, but the medicines do not cure the disease. The jerky movements are sometimes treated with sedatives or tranquilizers.

When the heart muscle is affected, it usually recovers. Treatment of rheumatic heart disease usually involves treating damaged heart valves. Most often valve leaks caused by the disease are mild and do not need treatment. The most common problem caused by rheumatic heart disease is mitral stenosis. This means that the valve cannot open completely. The narrowed mitral valve reduces the amount of blood that can flow through your heart. Over time, it can cause your lungs to become congested with fluid, and you may have trouble breathing. Often the valve can be repaired with surgery, but sometimes the valve is too badly damaged and must be replaced by an artificial valve. Other severe valve problems may also need valve replacement surgery.

It is very important to keep from getting rheumatic fever again. Repeated infections increase the chances of permanent heart damage. You may need monthly shots to prevent future strep infections.

How can I help take care of myself?

Follow your healthcare provider's instructions. Tell your provider if you have a sore throat again. You may need to take an antibiotic regularly for months or years to prevent another strep infection. You may also need to take antibiotics before having dental work or surgery. Follow your healthcare provider's advice about physical activity.

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