

Rheumatic Fever

CHAPTER

17

Rheumatic fever is a serious illness with joint pain and fever. It usually lasts about 6 weeks but may last up to 6 months (or rarely more). Then the joint pain usually goes away completely. But heart damage, if it has occurred, may be permanent or become disabling (shortness of breath; sickly child).

CAUSES

Rheumatic fever usually results after a sore throat caused by bacteria called “streptococcus.” A “strep throat” often starts suddenly with throat pain and fever and without signs of a cold. Rheumatic fever is most common where epidemics of strep throat are common—in areas that are crowded and lack sanitation.

PREVENTION

Rheumatic fever can often be prevented by giving penicillin to children who have signs of a strep throat. Keep giving penicillin for at least 3 days after all signs disappear. Long-term prevention involves improving hygiene and living conditions (a fairer society).

CAUTION: Most sore throats in children are not “strep,” but are caused by the common cold; these should not be treated with penicillin, or any other antibiotic and never injections (see p. 18). Typically, a strep throat is quite painful and starts suddenly, with high fever, and without a stuffy nose or other signs of a cold.

SIGNS OF THE TYPICAL CASE

- Child between the ages 5 to 15
- Began 1–3 weeks after the child had a severe sore throat
- High fever—child quite sick
- Joint pain. Pain often starts in one or more of the larger joints (especially wrists and ankles). Then it changes to other joints, often knees and elbows. The painful joints may swell and become red and hot.
- Child gets well in about 6 weeks to 3 months, but may get the same illness again after another sore throat.



OTHER SIGNS (not always present)

- Reddish curved lines or rash on skin
- Lumps (the size of peas) under the skin over or near the joints
- Heart problems. You may hear a “murmur” if you put your ear over the child’s chest. Instead of the typical “lub-dub . . . lub-dub” of the heartbeat, you will hear a soft, long “whoosh” for one of the sounds: “whoosh-dub . . . whoosh-dub . . . whoosh-dub”. The “whoosh” sound means a valve to the heart has been damaged so that it does not close completely. In extreme cases this can lead to heart failure (see *Where There Is No Doctor*, p. 325).
- Nosebleed, belly pain, chest pain, or signs of pneumonia occur in only a few cases.

TREATMENT

If you think a child might have rheumatic fever, get medical advice quickly. Early treatment may help prevent heart damage. (After fever and joint pain have begun, treatment does not seem to shorten the length of the illness.)

Give ibuprofen (see p. 134) and apply heat or cold packs to painful joints (see p. 132) to help reduce pain and swelling. Do full range-of-motion exercises of painful joints gently every day (see Chapter 42).

Give antibiotics to treat the infection. See the box below for treatment options and doses, and see p. 351 of *Where There Is No Doctor* for cautions in the use of penicillin.

The child should stay in bed or rest quietly most of the time until all signs are gone (about 6 weeks). Do “exercises without motion” to maintain strength (see p. 140). Once all signs of illness are gone, begin daily activities little by little.

ANTIBIOTIC TREATMENT OF RHEUMATIC FEVER			
Name of medicine	Age or weight	Dose	How to take
Penicillin V (by mouth)	up to 1 year	125 mg	2 times a day for 10 days
	1 to 6 years	250 mg	
	6 to 12 years	500 mg	
	over 12 years	1 g (1000 mg)	
— OR —			
Amoxicillin (by mouth)	all children	50 mg/kg/day up to a maximum of 1000 mg daily	divided into 2 to 3 doses a day for 10 days
— OR —			
Benzathine benzylpenicillin (by injection)	up to 30 kg	600,000 Units	single deep injection into muscle (give one half into each buttock)
	over 30 kg	1,200,000 Units	
— OR for persons allergic to penicillin: —			
Azithromycin (by mouth)	all children	20 mg/kg/day up to a maximum of 500 mg daily	1 time a day for 3 days

NOTE: It may be safer to give children medicines by mouth rather than by injection. For information on the dangers of unsafe injections and how to safely give injections to children, see p. 19 to 20.

PREVENTION OF REPEAT ATTACKS

Persons who have had rheumatic fever have a risk of getting it again, and heart damage becomes more severe with repeat attacks. For these persons, treat any sore throat quickly with antibiotics (see box above). These persons can take a preventive dose of antibiotic regularly for 5-10 years or until they are 21 years old, depending on their level of heart damage. Long-term prevention is especially important in persons who already have serious rheumatic heart damage. See the box below for preventive treatment options and doses, and see the Green Pages of *Where There Is No Doctor* for precautions related to these medicines.

PREVENTATIVE TREATMENT OF RHEUMATIC FEVER			
Name of medicine	Age or weight	Dose	How to take
Penicillin V (by mouth)	1 month to 5 years	125 mg	2 times a day
	6 to 17 years	250 mg	
OR			
Benzathine benzylpenicillin (by injection)	up to 30 kg	600,000 Units	single deep injection into muscle, every 3 to 4 weeks (give one half into each buttock)
	over 30 kg	1,200,000 Units	
OR for persons allergic to penicillin:			
Azithromycin (by mouth)	6 months to 11 years	12 mg/kg/day up to a maximum of 500 mg daily	1 time a day
	12 to 17 years	500 mg	