

PUBLICATION 297 • SEPTEMBER 1945



Facts about

# RHEUMATIC FEVER

U. S. DEPARTMENT OF LABOR • CHILDREN'S BUREAU

62.7  
58c  
297  
Digitized for FRASER  
<https://fraser.stlouisfed.org>  
Federal Reserve Bank of St. Louis

Under the State rheumatic-fever program a well-trained  
pediatrician has responsibility for the medical care of this girl.



facts about

## **RHEUMATIC FEVER**



### **What is rheumatic fever?**

Rheumatic fever is a children's disease. It usually comes first when the child is 7 or 8 years of age, although it may come at any time during childhood. Sometimes the first known attack occurs in adult life.

The disease may attack the joints, the nervous system, the skin, or the heart. The severity of the disease varies too. One child may have a high fever and painfully swollen joints. Another may have joint pains so mild that he goes about his usual activities without realizing that he is sick.

The child is sick with rheumatic fever for a long time—usually for many months. The disease very frequently attacks the same child again and again.

It tends to strike more than one member of a family. For this reason, if one child in a family has rheumatic fever, the other children should be examined by the doctor.

### **Can rheumatic fever be prevented?**

The cause of rheumatic fever is unknown and there is no specific way of preventing it. Anything that undermines the child's general health makes him more apt to get rheumatic fever. Inadequate food and clothing, lack of rest, damp and crowded houses—all make the child more likely to have rheumatic fever. Colds and other respiratory diseases are particularly dangerous to children who have had rheumatic fever.

### **What are the signs of rheumatic fever?**

Among the early warning signals of rheumatic fever are loss of appetite, failure to gain weight, rapid pulse, and pain (often vague and fleeting) in joints and muscles. Unfortunately, these warning signals are like the first signs of many other diseases of childhood. This makes the disease difficult to recognize in its early stages.

Pain and swelling of first one joint and then another, usually accom-

panied with high fever, are more definite clues that aid the doctor in diagnosing rheumatic fever.

St. Vitus' dance (chorea) is another form of rheumatic fever. Awkward, jerky movements of the face, arms, and legs—especially when the child tries to feed or dress himself, or pick up objects—and unexplained crying spells, suggest the possibility of chorea.

If a child develops any of these signs of rheumatic fever, a doctor should be consulted at once. Don't make the tragic mistake of ignoring such danger signals even though they seem mild and vague.

Even the experienced doctor often finds it difficult to recognize rheumatic fever because the signs are so varied and so vague. For example, the so-called "growing pains" of childhood may be of no consequence at all. Or they may actually be rheumatic in origin. A slight fever may be normal for one child. In another child it may be evidence of rheumatic infection. A doctor should see a child who is suffering from any one of these symptoms.

The doctor will need to have a complete medical history of the child, give a thorough physical examination, and make special tests before he can know for sure whether or not the child has rheumatic fever.

### **Why is rheumatic fever so serious?**

Rheumatic fever kills more school-age children in the United States than any other disease. Actually, however, the large number of deaths caused by the disease only suggests the size of the problem. For every child who dies of rheumatic fever, there are many more who are attacked by the disease and who do not die of it but have long drawn-out attacks lasting many months. About half a million of our children now have rheumatic fever or have had it in the past. No one can measure the physical suffering and heartbreak it has caused and is still causing.

After an attack of rheumatic fever a child may be left with some scarring of the heart, which is known as rheumatic heart disease. For a long time it was said that rheumatic fever was a serious disease because it caused rheumatic heart disease. People believed that children with rheumatic heart disease might even "drop dead." This is not true. It is rheumatic fever itself that is the danger. For it is rheumatic fever that kills and that causes long periods of illness.

It is important, then, to know whether a child has had rheumatic heart disease because if so, he is apt to have another attack of rheumatic fever. Doctors cannot tell usually whether a child has rheumatic heart disease on the basis of a physical examination alone because a large number of perfectly normal children have "heart murmurs." If the doctor is to know whether or not a heart murmur really indicates heart disease, he will need a complete medical history of the child, a complete physical examination, and laboratory tests, such as X-ray, fluoroscopic examination, and electrocardiogram.

Once the diagnosis of rheumatic heart disease has been made, measures to prevent another attack must be taken.

### **How should a child with an attack of rheumatic fever be cared for?**

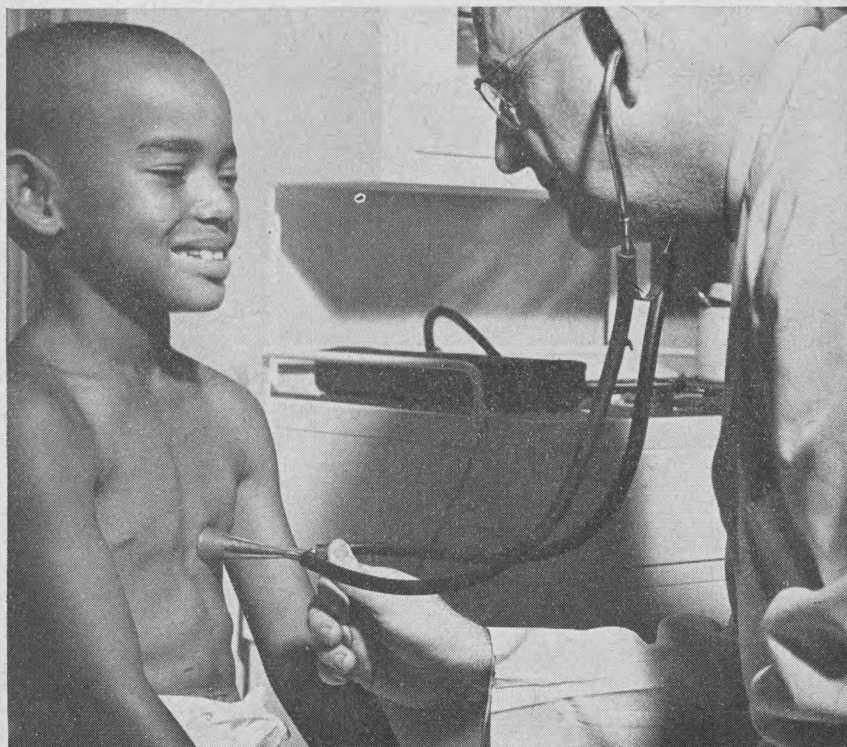
When the child first becomes ill with rheumatic fever, a doctor usually recommends that the child receive care in a hospital, where he can have expert medical and nursing care. At the hospital, the child will receive treatment for relief of fever and pain. If the child has chorea, sedative drugs will be given. And if the heart is seriously affected, special drugs, and in some cases oxygen, will be used to make the child more comfortable.

Even after the acute symptoms have lessened, the illness ordinarily lasts for a long period. The child may need to stay in bed for 6 months or longer. This is the hardest part of the illness, since the child may look and feel well.

Good medical and nursing care and cheerful and comfortable surroundings are essential during the long siege of illness.

Sometimes the child may be cared for at home during this period. But

**This boy has fully recovered from the disease, but returns regularly to the State rheumatic fever clinic for examination.**



often it is too difficult for a busy mother, especially when she has other children, to keep the child quiet and happily occupied. Under such circumstances a convalescent home, a sanatorium, or a foster home may be the answer.

It is important, too, that the child's schooling be continued, except when he is acutely ill. Many hospitals and convalescent homes provide schooling and occupational therapy. Some States have special teachers who come into the home to teach a child who is sick.

When the doctor has decided that the child is really well, he will allow him to increase his activity by easy stages. After a few weeks of this, the child can usually return to his normal life of school and play.

### **How can further attacks be prevented?**

Unlike the common contagious diseases of childhood against which the body builds up an immunity following an attack, rheumatic fever can attack a child again and again.

For this reason every effort should be made to prevent another attack. The child should be examined periodically by a doctor, and any illness should be treated. The child's general health and resistance to disease should be kept high by good health habits, nourishing food, and plenty of rest. Exposure to colds or other respiratory infections must be avoided as far as possible. The child's clothing should be warm enough. Wet shoes or clothing should be changed promptly.

If the child's home situation is unfavorable to healthy living and satisfactory family relationships, because of poor physical environment, lack of understanding by the family, or emotional problems, adjustments must be made.

Parents sometimes ask if taking a child to a warmer climate would help to prevent a second attack. Rheumatic fever can occur in any climate. Whatever the advantages of a warm climate, they probably are no better protection against rheumatic fever than healthful living conditions in a cold climate.

So far no specific method of preventing recurring attacks has been found. There is some hope that very small daily doses of sulfa drugs given under a doctor's close supervision, may protect the child.

### **Can the rheumatic child have a normal life?**

The child who has had rheumatic fever can usually live a normal life and take his part in the activities children of his age enjoy and need even if he has developed rheumatic heart disease. Only a small percentage of children are found at adolescence to have so much damage to their hearts that they cannot live normal lives. The child who has had rheumatic fever must not be so "babied" that it will be hard for him to meet



THE NEW YORK TIMES PHOTO

**A child who has had rheumatic fever can usually live a normal life and enjoy all the things other children of his age do.**

the demands of his home and school and of ordinary living with other people.

### **What is being done about rheumatic fever?**

In some States special programs for the rheumatic child have been developed in connection with crippled children's services under the Social Security Act.

A Nation-wide program to help crippled children was begun in 1935 under the Social Security Act. Under this act, each year the people of the United States through their representatives in Congress appropriate money to the Children's Bureau and the Bureau, in turn, gives it to the States that put up some additional funds and draw up plans for providing care for crippled children. At present the amount the Federal Government contributes is \$3,870,000. In each State there is an agency for crippled children whose duty it is to locate the children needing care and to care for as many of them as is possible with the limited funds available. All the States now have such programs.

In 1939 Congress authorized the Children's Bureau to include services for children with rheumatic fever in the program for crippled children. By May 1945, 18 States had approved programs for the care of children with rheumatic fever or rheumatic heart disease—California, Connecticut, District of Columbia, Iowa, Maine, Maryland, Michigan, Minne-

sota, Missouri, Montana, Nebraska, Oklahoma, Rhode Island, South Carolina, Utah, Virginia, Washington, and Wisconsin. About 15 more States are planning such programs.

### **Why are State and community programs for the care of rheumatic children necessary?**

Many different persons, institutions, and agencies must be called on if children with rheumatic fever are to receive the care they need. Doctors, public-health nurses, welfare workers, teachers, and parents must all work together if the disease is to be controlled. This makes a well-coordinated plan essential. Without such a plan children will not receive essential care.

### **What does the State do?**

A State rheumatic-fever program usually starts by providing service for only a few counties and then extends it as rapidly as possible to other counties. The program is set up in a place where good medical, medical-social, and public-health-nursing services can be obtained most readily, and where hospitals, clinics, sanatoriums, and convalescent homes are available.

Special diagnostic services are provided for children suspected of having the disease, and medical services, hospital care, convalescent care, and after-care services are provided for the children who are found to have rheumatic fever or heart disease. Any medical care needed by the child is made available to him.

### **Who is eligible for care?**

Children under 21 who have heart disease or conditions that might lead to heart disease are eligible for care. All the State programs put special emphasis on the care of children with rheumatic fever or rheumatic heart disease but children with certain other types of heart disease are cared for too.

Any child who lives in an area in which a program is operating may go to the clinic for a diagnosis; children are given free hospital and convalescent care if their families cannot afford to pay for all the treatment they need. It is not necessary for the family to have established legal residence in the area in which the program is in operation in order to be given services.

### **How are the rheumatic children found?**

Doctors locate many rheumatic children in the course of their practice or in schools or clinics. Other children are referred to the State agencies by public-health nurses in the community and in the schools, and by teach-



ers, social agencies, and the parents of the children themselves. Many State rheumatic-fever programs make a special point of examining the brothers and sisters of children with rheumatic fever, since the disease frequently strikes more than one member of a family.

### **Who takes care of the children under the State program?**

When a child with rheumatic fever is accepted for care under the State program, a well-trained pediatrician employed by the State is responsible for his medical care, whether he is in a hospital, sanatorium, convalescent home, or his own home. Treatment and continuous medical supervision are given during the stage of acute infection and for as long as necessary after the acute infection has subsided.

A medical-social worker studies the conditions surrounding the child and the effect his attitude toward his illness has on his chance for complete recovery. By working with the family and the child, she tries to smooth out any difficulties that are interfering with the child's getting full benefit from the treatment given him.

A public-health nurse is responsible for supervising the care of rheumatic fever children in their homes and in the schools. She works closely with the pediatrician in seeing that his directions are understood and carried out by families, teachers, and nurses and that someone in the child's home is taught how to give bedside care, to prepare the proper food for

**A loom to work with, a gift to make, give this youngster many enjoyable hours during convalescence in the sanatorium.**



the patient, and to provide interesting and suitable activities during the period of the child's illness and recovery. She works with other professional workers in maintaining high standards of care throughout the acute and convalescent periods.

### **What care does the child receive?**

The child's condition is diagnosed by a pediatrician in a clinic that has all the necessary equipment. The clinics are held regularly and appointments are made in advance so that no more children are admitted at any one session than the professional workers are able to study carefully—usually six to eight children in a half-day clinic session. The medical and family histories of the child are taken, a physical examination is given, and the necessary laboratory tests are made. The medical-social worker and the public-health nurse help the parents make plans for the child. Sometimes a child is sent to a hospital for observation or, if the child is too ill to go to the clinic, the doctor makes a visit to his home.

A child who is acutely ill is given care in a hospital that has a special children's ward with a pediatric staff. The State agency selects hospitals which give this care.

After the acute stage is passed, the child is transferred to a place where he can have a long period of bed rest during the chronic stage of the disease. Although the child still needs good medical and nursing care, he can be better protected from colds and other infections, can lead a more normal social life, and can have better educational experiences if he does not spend this long period of rest in bed in a regular hospital ward for such children.

Care during the chronic stage is provided in different ways in different States. It may be given in a hospital with a sanatorial ward, a sanatorium, a convalescent home, a foster home, or the child's own home.

Although it is often difficult for the mother to take care of a child who must spend a long period of time in bed, it is sometimes possible for the child to receive the care he needs in his own home. He must be provided with continuous medical and nursing supervision. He must be protected from all infectious diseases, particularly those that affect the nose and throat. The home must be a clean, peaceful, pleasant place where he can have plenty of good food of the proper sort and complete rest, with enough enjoyable diversion and enough interesting things to do to keep his mind and hands busy so that he will not be restless and unhappy.

### **Why is after-care important?**

After the chronic stage has passed, after-care is extremely important, for although the child should be encouraged to live as normal a life as possible, every care must be taken to avoid another attack of the disease. He must return to the State rheumatic-fever clinic regularly for examination and advice. If the child cannot get to the clinic, transportation is



Convalescence at home may be an enjoyable time if there are enough interesting things to do to keep mind and hands busy.

taken care of by the State agency. The clinic staff doctor, medical-social worker, and nurse must plan with the family to find some way by which the child can be given the things he must have if he is to keep well.

### **Are education and vocational guidance provided?**

The child's education during the tedious "get well" period is usually taken care of by the State or local board of education. Many States provide for bedside or group teaching in hospitals, sanatoriums, and convalescent homes, and in some States visiting teachers go to the child's own home.

In some instances adolescent children whose hearts have been damaged by their illness and whose activities must be sharply limited will need special guidance in selecting a vocation. Arrangements are made through State vocational-rehabilitation services for such guidance.

### **Are we doing enough?**

Each year rheumatic fever cripples or handicaps many thousands of children. State crippled children's programs reach only a few thousand each year in 240 of the 3,000 counties in the United States. As a Nation, we have only taken the first step in the right direction. Some day, if we plan well in our States and in our communities, every child who has rheumatic fever can have the care he needs and must have if he is to enjoy a full, happy life.

