

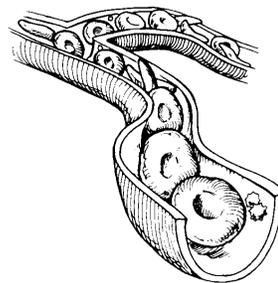
Fever and Infection

PNEUMOCOCCAL INFECTION

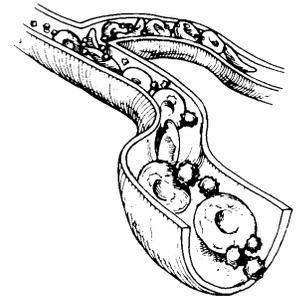
Infection is the major cause of death in children with sickle cell anemia. Infections cause deaths more rapidly, and are more difficult to get rid of in patients with sickle cell anemia than in normal persons.

An especially serious germ is the *pneumococcal* bacteria. It causes pneumonia, meningitis (infection of the brain) and septicemia (blood poisoning). This germ is responsible for most of the deaths in children with sickle cell anemia under 3 years of age. It is estimated that the children with sickle cell anemia are 600 times more likely to get a *pneumococcal* infection than

the normal population. Most of the infections occur before the age of 3 years. 35% of the children with sickle cell who get a *pneumococcal* infection die.



Infection



Septicemia (blood poisoning)

SUSCEPTIBILITY

The spleen in a normal person has two functions to help fight infection. It filters or removes germs from the blood stream and makes antibodies that help fight infection outside of the spleen. In a child with sickle cell anemia, the sickled cells block the blood vessels in the spleen so blood can't move through it to be filtered. It also can't make the antibodies that fight infection.

Thus, the bacteria can grow in the blood stream and cause blood poisoning (septicemia).

SYMPTOMS OF PNEUMOCOCCAL INFECTION

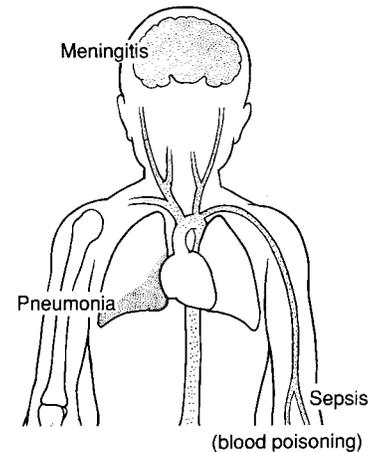
- Fever 101.5°F or 38.5°C or higher
- Cranky
- Unusual sleepiness
- Vomiting
- Diarrhea
- Rapid breathing
- Cough
- Pale color
- Trouble breathing

**** A FEVER MAY BE THE ONLY SYMPTOM AT FIRST**

If your child has any of these symptoms, even if over 5 years of age and/or on penicillin, the child should be seen by either your private doctor or a doctor in the emergency room as *soon as possible*.

Your child will be examined and may have lab work and x-rays to find the cause of the fever. Your child will be given an IV antibiotic and may be sent home on a strong oral antibiotic. Depending on your child's symptoms, he/she may be admitted to the hospital to be watched closely.

The *pneumococcal* infection is treatable and complete recovery is possible if the infection is recognized and treated early enough. However, even with treatment, permanent disabilities and death can result.



PENICILLIN

Penicillin kills the *pneumococcal* bacteria before it can cause blood poisoning in a child with sickle cell. It must be taken every 12 hours. If a dose is missed, the body is not protected against the pneumococcal bacteria and blood poisoning can still occur very rapidly. **IT IS IMPORTANT TO GET YOUR CHILD'S PENICILLIN REFILLED BEFORE IT RUNS OUT.**

It is important to remember that your child can still get blood poisoning even though the penicillin is taken regularly. Some bacteria may be resistant to the penicillin. If your child develops a fever of 101.5°F or 38.5°C or higher, even taking penicillin, he/she should see a doctor immediately. Other antibiotics can be used to fight the bacteria resistant to penicillin.

There are also immunizations (Prevnar™/PCV7, Pneumovax™/PPV23) given to children with sickle cell that will also help to prevent infection with pneumococcal bacteria.

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Adapted from materials by the Texas Department of Public Health Newborn Screening Program.