

Parents' Guide to Childhood Immunization

Pneumococcal Disease

Pneumococcal disease caused by *Streptococcus pneumoniae* bacteria. It is usually thought of as a disease of the elderly, but it also takes its toll among our children. In 1998, before a vaccine for children was licensed, about 188 of every 100,000 children younger than 2 years of age developed invasive pneumococcal disease (for instance, meningitis or blood infections). It is the leading cause of bacterial meningitis in the country, hitting children under 1 year old the hardest. About 200 children died from invasive pneumococcal disease each year. Pneumococcal disease is also a common cause of ear infections. There are about 90 subgroups (serotypes) of the pneumococcal bacterium, but 7 of these have accounted for about 80% of infections among children younger than 6 years of age.

Pneumococcal disease is spread through the air. It can be spread by anyone who is infected, even if they don't have symptoms. It is most common during the winter and early spring. All children are susceptible to pneumococcal disease, but some are more susceptible than others, including African Americans, American Indians, Alaska Natives, and children with certain medical conditions such as sickle cell disease or HIV infection, or those who don't have a functioning spleen.



Pneumococcal Vaccine

Pneumococcal conjugate vaccine was licensed in 2000. It is an inactivated (killed) vaccine, which gives immunity against the 7 strains of the pneumococcal bacterium that have caused most of the serious infections in children. It is more than 90% effective against invasive disease (for example, blood infections and meningitis).

Some ear infections are prevented by pneumococcal vaccine, but many are caused by other organisms, and the vaccine will not prevent these.

Four doses of pneumococcal vaccine are recommended, at 2, 4, 6, and 12–15 months of age. Children who are late starting the series may need fewer doses. Check with your doctor or clinic for the recommended schedule if your child starts late. This vaccine is usually not given to children 5 years old and older. But some older children (those with certain chronic diseases or damaged immune systems) still need pneumococcal vaccine. There is a different vaccine — called pneumococcal polysaccharide vaccine — that can be given to these children and to adults. Pneumococcal vaccine may be given at the same time as other childhood vaccines.

Pneumococcal Vaccine Side Effects

Local reactions have been reported in 10%–20% of children getting the vaccine. Of these, only about 3% were considered severe (for example, tenderness that interferes with arm or leg movement). These local reactions occur most frequently after the 4th dose. Some children also report a mild fever. More severe reactions are extremely uncommon.

Pneumococcal Vaccine Precautions

Other than the normal precautions for all vaccines, shown on page 30, there are no precautions for pneumococcal vaccine.