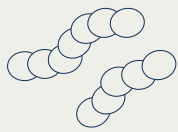


## UNDERSTANDING THE RISKS

# Getting Pneumococcal Disease vs. Getting Vaccinated



We all want to make the best health choices for our children. So how risky is pneumococcal disease compared to the vaccines that prevent pneumococcal disease?

## PNEUMOCOCCAL DISEASE FAST FACTS



### HOW CONTAGIOUS?

**Contagious.** The bacteria that cause pneumococcal disease can be in children's noses or throats without making them sick, but they can still infect others. Since many children have the pneumococcal bacteria living in them without making them sick, it is hard to know exactly how contagious it is.<sup>1</sup>



### HOW SERIOUS?

Many pneumococcal infections are mild. However, pneumococcal bacteria account for 40%–70% of serious invasive disease in children ages 2 and younger. “Invasive” means that the infection spreads to major organs and blood.<sup>2,3</sup> Complications of invasive pneumococcal disease in children include:

**Pneumococcal pneumonia:** About 1–2 in 10 children<sup>2</sup>

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**Pneumococcal meningitis:** It is the leading cause of bacterial meningitis in children younger than age 5; 1 in 12 children with pneumococcal meningitis will die, even with treatment.<sup>2,4</sup>

## VACCINE FAST FACTS



### HOW EFFECTIVE?

There are several pneumococcal vaccines that protect against pneumococcal disease. Studies of the first pneumococcal conjugate vaccine that became available in 2000 (PCV7) showed that the vaccine protected more than 9 in 10 babies against serious pneumococcal disease.<sup>2,3</sup>



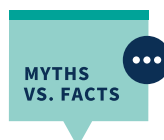
### HOW SAFE?

Generally, for every 1 million vaccines administered in the United States, only about 1–2 doses result in a severe allergic reaction.<sup>5,6</sup>



### SAFETY RECORDS

The first pneumococcal vaccine was used in 1977. The first conjugate pneumococcal vaccine was used in 2000. Conjugate vaccines combine two antigens, which are natural substances that tell your body something is foreign. This helps the immune system to react better.<sup>2,7</sup>



### MYTH BUSTER

Is pneumococcal disease serious for children? Yes, it can be very serious for children. In fact, it is the most common cause of bacterial infections that spread to the blood and major organs in U.S. children.<sup>2,8,9</sup>



**Five separate safety systems continuously monitor all vaccines for as long as the vaccines are given.<sup>10</sup>**

**Learn more at [hhs.gov/immunization/basics/safety/index.html](https://hhs.gov/immunization/basics/safety/index.html).**

## COMPARING THE TWO

### PNEUMOCOCCAL DISEASE

### VACCINES TO PREVENT PNEUMOCOCCAL DISEASE

#### Common Mild to Moderate Symptoms and Common Side Effects<sup>2,3,4,8,11,12,13</sup>

Depending on how severe the infection is, common symptoms of pneumococcal disease can last from a few days to weeks and can include:

- Fever
- Chills
- Chest pain
- Trouble breathing
- Ear pain
- Stuffy or runny nose
- Facial pain or pressure

Common side effects of vaccines to prevent pneumococcal disease are usually mild and last 1–2 days. If side effects occur, they can include:

- Soreness, redness, or swelling where vaccine was given
- Fever or chills
- Loss of appetite
- Fussiness
- Headache
- Muscle or joint ache

## Rare, More Serious Symptoms or Complications and Rare Side Effects

2,3,4,8,11,13,14

Sometimes, children with severe pneumococcal disease could have complications after recovery.

Serious symptoms or complications of pneumococcal disease vary and can include:

- Blood infection
- Infection of the brain and spinal cord linings (meningitis)
- Lung infection (pneumonia)
- Bone and joint infection

Complications for pneumococcal disease can cause:

- Hearing loss
- Amputation of limbs
- Death

Serious side effects of vaccines to prevent pneumococcal disease vary and can include:

- Very small risk of seizures caused by fever if a pneumococcal vaccine is given with a flu vaccine.

### Sources:

1. Centers for Disease Control and Prevention (CDC): <https://www.cdc.gov/pneumococcal/causes>
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6. U.S. Department of Health and Human Services (HHS): <https://www.hhs.gov/immunization/basics/safety/side-effects/index.html>
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