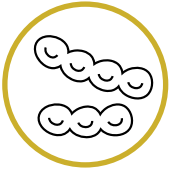


Pneumococcal disease



What is pneumococcal disease?

Pneumococcal disease is an infection caused by bacteria called *Streptococcus pneumoniae* (or pneumococcus). Pneumococcal infections can range from ear and sinus infections, to pneumonia and infections in the blood stream. Every year, almost **500,000 deaths** among children under five years of age are caused by pneumococcal disease around the world.

How is pneumococcal disease spread?

Pneumococcal bacteria are very common. Many people have them in their nose and throat without getting sick, but they can still spread the bacteria.

Pneumococcal bacteria can spread very easily through infected mucus or saliva. You may come in contact with infected mucus or saliva by:

- being near an infected person who coughs or sneezes
- having close contact with an infected person (for example, kissing or hugging)
- touching objects that were recently exposed to an infected person's mucus or saliva (such as shared utensils, cups, tissues or toys) and then rubbing your eyes, nose or mouth

Prevention

You can protect your children against many types of pneumococcal disease with a safe and effective pneumococcal vaccine.

The vaccine is given at:

- two months
- four months
- one year of age

The vaccine may also be given to people who have a higher risk of getting pneumococcal disease (for example, if they have a medical condition).



Is it serious?

Pneumococcal disease is often mild but can invade other parts of the body and can cause invasive infections. When this happens, a serious disease called **invasive pneumococcal disease (IPD)** can develop, which can cause serious symptoms, lifelong disability or even death.

Pneumococcal disease causes up to one-half of infections of the middle ear (these infections are known as otitis media). Children under five years of age who attend a daycare centre are two to three times as likely to get IPD or severe otitis media.

Since the vaccine was introduced, cases of IPD have been reduced by among children under 5 years old **65%**



Symptoms

Many people who have pneumococcal bacteria in their nose and throat will not show any symptoms.

Pneumococcal bacteria cause infections, such as:

- otitis media (ear infection): symptoms include ear pain, a red swollen ear drum, fever and sleepiness
- sinusitis (sinus infection): symptoms include plugged nose and headaches
- pneumonia (lung infection): symptoms include coughing up thick mucus and difficulty breathing

In rarer cases, when the bacteria invade other parts of the body, IPD can develop and can cause infections, such as:

- meningitis (infection of the lining of the brain and spinal cord): symptoms include stiff neck, fever and headache, increased pain from bright lights, confusion and, in babies, vomiting, and poor eating and drinking habits
- bacteremia (infection in the blood stream): symptoms include fever, chills and low alertness
- pneumonia with bacteremia: symptoms include fever, chills, cough, rapid breathing or difficulty breathing and chest pain

For children, especially those under two years of age, one of the first symptoms of IPD is a high fever. The other symptoms depend upon what parts of the body are affected. However, symptoms may include:

- stiff neck
- headache
- vomiting
- fussiness (crying)
- loss of appetite
- coughing

What are the risks?

Each year, about 3,000 cases of IPD are reported in Canada. Most of these cases happen in young children or elderly people. Anyone can get IPD, but some people are at higher risk of getting it, including:

- children under five years of age, especially those under two
- adults who are 65 years of age or older
- people with certain medical conditions (for example, heart disease, diabetes or lung disease)
- people with a cochlear implant
- people with a weakened immune system or who are immunosuppressed
- people with a non-functioning or missing spleen

It takes all of us to protect each of us.

Talk to your health care provider or your local public health unit about the pneumococcal vaccine.

Stay up to date with your vaccinations



Because there are more than 90 known types of pneumococcal bacteria, a previous pneumococcal infection will not protect from future infection. Vaccination is the best way to protect your child against pneumococcal disease. The vaccines protect against the types of pneumococcal bacteria that cause most of the severe illness in children. The vaccines are part of the publicly funded vaccine schedule and are offered free to all people in Ontario.