

Fact Sheet:

Diphtheria, Tetanus, Pertussis (Whooping Cough), Polio, and Haemophilus Influenzae type b vaccine

1. What are Diphtheria, Tetanus, Pertussis, Polio and Haemophilus Influenzae type b

Diphtheria is caused by bacteria that infect the nose and throat. These bacteria release a poison that may cause breathing problems due to the throat closing over as a result of a grayish membrane developing. In addition, heart failure and paralysis may occur. The bacteria which causes diphtheria is found in the throat or on the skin and is spread by coughing and sneezing. Diphtheria illness is very rare in Canada because of the use of diphtheria vaccine.

Tetanus, also called “lockjaw” is a bacteria that is everywhere, particularly in the soil. It enters the body when the skin is cut or punctured and produces a poison that can cause a tightening all over the body, including the muscles needed for breathing. The disease often resulted in death before there was a vaccine. Today, tetanus is very rare in Canada due to the use of the vaccine.

Pertussis is a very contagious disease which can cause infection of the lungs and throat. It can cause pneumonia, convulsions, brain damage or death. The disease is most serious for infants, however whooping cough can cause serious illness at any age and adults who have the disease can spread it to others. It is expected that whooping cough will continue to circulate in Canada for many years and both children and adults need protection.

Polio is caused by a virus and the infection can result in paralysis of the arms and legs, or even death. Before this vaccine was available in Canada outbreaks of polio occurred and resulted in many deaths and numerous cases of muscle paralysis. Cases of polio are very rare now but could still occur in Canada due to travel from countries where polio still occurs.

Haemophilus Influenzae type b is a bacteria that may be found in the nose and throat of all people, but most commonly affects children under age 5 years. The bacteria may cause serious infections such as meningitis, as well as serious infections of the throat, blood, joints or lungs. Protection from this bacteria is important as the bacteria is spread by coughing, sneezing, or face to face contact.

2. What are the contents of the Vaccine?

The vaccine contains antigens for the diseases for which it provides protection (diphtheria, tetanus, pertussis, polio and haemophilus influenza type b). None of these components are infectious. Traces of non-medicinal ingredients are present to keep the product stable, sterile, and help it to be more effective. The vaccine is licensed for use in Canada by the Biologics and Genetics Therapies Directorate, within Health Canada. A complete listing of contents is included in the product insert available from the public health nurse.

3. What are the possible reactions from the vaccine and how are they managed?

The most serious but rare side effect is a severe allergic reaction (anaphylaxis) which can be life threatening and usually occurs within 15 to 20 minutes of receiving the vaccine. Procedures are in place for the nurse to quickly respond to anaphylaxis by administering adrenaline.

The most common side effects of the vaccine include:

- Swelling, redness, and/or soreness at the injection site.
- Fever, irritability and tiredness have been reported.

These reactions are mild and generally last 1-2 days.

It is not necessary to give acetaminophen (e.g. Tylenol or Tempra) with every immunization. However, if your child is experiencing discomfort or fever, acetaminophen can relieve these symptoms.

- **Please remain in the waiting room for 15 minutes after immunization.**
- **See a doctor or seek medical attention if your child has any serious side effects.**
- **Report serious reactions to the public health nurse.**

4. What are the situations in which this vaccine should not be given?

- a) Children who have had an anaphylactic (severe or life-threatening) reaction or with known hypersensitivity to any of the contents of this vaccine.
- b) Those who are acutely ill, especially with fever should return later for the immunization.
- c) Any child being assessed for a disease of the brain or central nervous system or for a recent seizure may not be able to receive the vaccine until a diagnosis is made or the examining physician is consulted. Children having a high fever within 48 hours after receiving this vaccine should receive acetaminophen before the next dose of this vaccine is given.

5. What are the risks if this vaccine is not received?

- a) The chance of acquiring any of these diseases increases if not immunized.
- b) These diseases can be more serious to persons with decreased immunity such as those with cancer (leukemia, lymphoma, etc.), on high doses of steroids or with an inherited disease of immunity.
- c) Whooping cough is a very serious disease particularly in young infants who are not adequately immunized.