

Tetanus, Diphtheria, Pertussis Vaccine

Vaccines have saved more lives in Canada in the last 60 years than any other medical intervention. Vaccines help your immune system to recognize and fight bacteria and viruses that cause diseases.

Tetanus, diphtheria and pertussis are vaccine preventable diseases.

Tetanus ('lockjaw') is caused by bacteria found in the soil worldwide. The bacteria make a strong toxin within 3-21 days after entering the body through a cut or injury to the skin. The toxin causes painful tightening of muscles in the body. In severe cases, breathing muscles are affected. Without treatment, up to 8 in 10 people who get tetanus could die. It cannot be spread from person to person.

Diphtheria is rare in Canada; however this serious disease occurs in many countries worldwide. The bacteria are spread through the air by sneezing or coughing, and direct skin contact. Symptoms include a mild fever, sore throat, difficulty swallowing, tiredness and loss of appetite. A grayish white membrane appears in the throat within 2 to 3 days of illness which causes severe breathing problems like airway obstruction and suffocation. Within 2 to 5 days, the bacteria produce a strong toxin that can cause heart failure and paralysis. Without treatment 1 in 10 people could die.

Pertussis, or "whooping cough", is a serious bacterial infection of the lungs and throat. Pertussis can cause pneumonia, convulsions, brain damage or death. These complications are seen most often in infants. The bacteria are easily spread by coughing, sneezing or close face-to-face contact. Pertussis can cause severe coughing that often ends with a whooping sound before the next breath. This cough can last several months and occurs more often at night. 1 in 200 infants who get pertussis could die.

How can these diseases be prevented?

- Be immunized. When you / your child get immunized, you help protect others as well.
- Practice good hygiene (e.g. hand washing).

Who can get this vaccine for free?

- Grade 8 students as a **booster dose** (unless they have received it since becoming 11 years old).
- Pregnant women (ideally between 27-32 weeks gestation) even if they have received the vaccine previously as an adult.
- Other adults can receive 1 dose of this vaccine (in their lifetime) when they get their next 'tetanus booster' (recommended every 10 years).
- Caregivers of babies younger than 6 months old may be eligible to receive this vaccine once if they have not previously received it as an adult.
- NOTE: For young children, immunization for tetanus, diphtheria and pertussis is combined with other vaccines, such as polio and *Haemophilus influenzae* type b. These are given as a series of injections.

Who should not get this vaccine?

- Persons who have a serious illness, with or without a fever, should delay immunizations. **A mild illness, with or without a fever, is not a reason to avoid immunization.**
- People who had a life-threatening reaction to a previous dose of tetanus, diphtheria, or pertussis vaccine, or any components of the vaccine.
- Persons who received a tetanus, diphtheria and pertussis booster within the last 5 years.
- People who developed Guillain-Barré Syndrome (GBS) within 6 weeks of getting tetanus vaccine should not get the vaccine. GBS is a rare condition that can result in weakness and paralysis of the body's muscles.

Acetaminophen (Tylenol, Tempra) may be given for fever or soreness. ASA (Aspirin) must NOT be given to anyone younger than 18 years old because of the risk of Reye syndrome.

What are common reactions to this vaccine?

- **Vaccines are very safe and effective. It is much safer to get this vaccine than to get any of these serious diseases.**
- Soreness, redness and swelling at the injection site.
- Some individuals may experience fatigue, headache, mild fever or dizziness.
- These reactions are mild and generally last 1 to 2 days.

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is an extremely rare possibility of a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. **If this happens after you leave the clinic, call 9-1-1 or the local emergency number.** This reaction can be treated, and occurs in less than one in one million people who get the vaccine.

Who should you report reactions to?

- Report any adverse or unexpected reactions to your local public health nurse, your doctor, or nurse practitioner as soon as possible.

Talk to a public health nurse:

- If you have questions or concerns about your or your child's reaction to an immunization.
- If you had to take your child to a doctor, a hospital or to a health centre with a symptom that might be related to immunization.

For more information contact your local public health office, your physician, nurse practitioner, HealthLine online or by calling 811.

References: Product monographs (BOOSTRIX[®], 2018; ADACEL[®], 2012).

What does this vaccine contain?

BOOSTRIX[®] contains diphtheria toxoid, tetanus toxoid, three purified acellular pertussis antigens (filamentous haemagglutinin, pertactin), aluminum salts, and saline. Thimerosal-free. Latex-free.

ADACEL[®] contains tetanus toxoid, diphtheria toxoid, acellular pertussis (pertussis toxoid, filamentous haemagglutinin, pertactin and fimbriae types 2 and 3), aluminum phosphate, 2-phenoxyethanol and trace amounts of formaldehyde and glutaraldehyde. Thimerosal-free. Latex-free.

Mature Minor Consent

It is recommended that parents/guardians discuss consent for immunization with their children. Efforts are first made to get parental/guardian consent for immunizations. However, children at least 13 years of age up to and including 17 years of age, who are able to understand the benefits and possible reactions for each vaccine and the risks of not getting immunized, can legally consent to or refuse immunizations in Saskatchewan by providing mature minor informed consent to a healthcare provider.

To ensure that a complete immunization record is maintained, every immunization administered to an individual will be documented by Public Health into the electronic provincial immunization registry, known as Panorama. Panorama is a secure electronic system used in Saskatchewan to record and manage immunization records and the health information related to immunization for all Saskatchewan residents. Immunization records may be shared with other health care professionals to provide public health services; assist with diagnosis and treatment; and to control the spread of vaccine preventable diseases. Information about Panorama is detailed in the "Protecting the Privacy of Your Immunization Record" fact sheet.