

Diphtheria, tetanus, pertussis, hepatitis B, polio and *Haemophilus influenzae* type b (DTaP-HB-IPV-Hib) vaccine

Immunization has saved more lives in Canada in the last 50 years than any other health measure.

What is the DTaP-HB-IPV-Hib vaccine?

This vaccine protects against 6 diseases:

- Diphtheria
- Tetanus
- Pertussis (whooping cough)
- Hepatitis B (HB)
- Polio (IPV)
- *Haemophilus influenzae* type b (Hib)

Health Canada approved the vaccine. It will be free as part of your child's routine immunizations. Call your health care provider to make an appointment.

Who should get the DTaP-HB-IPV-Hib vaccine?

Babies get the DTaP-HB-IPV-Hib vaccine as a series of 3 doses. The first dose is at 2 months of age, the second at 4 months and the third at 6 months. They should get this vaccine at the same time as other childhood immunizations.

DTaP-HB-IPV-Hib vaccine	Child's age at immunization
1st dose	2 months
2nd dose	4 months
3rd dose	6 months

A booster dose of DTaP-IPV-Hib vaccine is given at 18 months of age. This vaccine does not contain the hepatitis B vaccine because children completed their hepatitis B vaccine series in infancy. For more information, visit [HealthLinkBC File #15b Diphtheria, tetanus, pertussis, polio, *Haemophilus influenzae* type b \(DTaP-IPV-Hib\) vaccine](#).

It is important to keep a record of all immunizations received.

What are the benefits of the DTaP-HB-IPV-Hib vaccine?

The vaccine is the best way to protect your child against diphtheria, tetanus, pertussis, hepatitis B, polio and *Haemophilus influenzae* type b. These are serious and sometimes fatal diseases. When you get your child immunized, you help protect others as well.

What are the possible reactions after the vaccine?

Vaccines are very safe. It is much safer to get the vaccine than it is to get sick from 1 of these diseases.

Common reactions to the vaccine may include soreness, redness and swelling where the vaccine was given. Some children may have a fever or experience crankiness, restlessness, vomiting, diarrhea, persistent crying or a loss of appetite. These reactions are mild and usually last 1 to 2 days.

Acetaminophen (e.g. Tylenol®) or ibuprofen* (e.g. Advil®) can be given for fever or soreness. ASA (e.g. Aspirin®) should not be given to anyone under 18 years of age due to the risk of Reye syndrome.

*Ibuprofen should not be given to children under 6 months of age without first speaking to your health care provider.

For more information on Reye syndrome, please visit [HealthLinkBC File #84 Reye syndrome](#).

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is an extremely rare possibility, less than 1 in a million, of a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this reaction occurs, your health care provider can treat it. Emergency treatment includes administration of epinephrine (adrenaline) and transfer by ambulance to the nearest emergency department. If symptoms develop after

you leave the clinic, call **9-1-1** or the local emergency number.

It is important to always report serious or unexpected reactions to your health care provider.

Who should not get the DTaP-HB-IPV-Hib vaccine?

Speak with a health care provider if your child has had a life-threatening reaction to a previous dose of diphtheria, tetanus, pertussis, hepatitis B, polio, or *Haemophilus influenzae* type b vaccine, or any part of the vaccine, including neomycin and polymyxin B.

Children who developed Guillain-Barré syndrome (GBS) within 8 weeks of getting a tetanus vaccine, without another cause being identified, should not get the DTaP-HB-IPV-Hib vaccine. GBS is a rare condition that can result in weakness and paralysis of the body's muscles. It most commonly occurs after infections, but in rare cases can also occur after some vaccines.

The vaccine is not usually given to people 7 years of age and older.

There is no need to delay getting immunized because of a cold or other mild illness. However, if you have concerns speak with your health care provider.

What are diphtheria, tetanus, pertussis, hepatitis B, polio and *Haemophilus influenzae* type b?

Diphtheria is a serious infection of the nose and throat caused by diphtheria bacteria. The bacteria are spread through the air by people sneezing or coughing or by direct skin-to-skin contact. The disease can result in very severe breathing problems. It can also cause heart failure and paralysis. About 1 in 10 people who get diphtheria may die.

Tetanus, also known as lockjaw, is caused by bacteria mostly found in the soil. When the bacteria enter the skin through a cut or scrape, they produce a poison that can cause painful tightening of muscles all over the body. It is very serious if the breathing muscles are affected. Up to 1 in 5 people who get tetanus may die.

Pertussis, also known as whooping cough, is a serious infection of the airways caused by pertussis bacteria. The bacteria are easily spread by coughing, sneezing or close face-to-face contact. Pertussis can cause pneumonia, seizures, brain damage or death. These complications are seen most often in infants. 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. About 1 in 170 infants who get pertussis may die.

Hepatitis B is a virus that attacks the liver. It can cause serious disease including permanent liver damage called cirrhosis. Hepatitis B is also 1 of the main causes of liver cancer, which can be fatal. The hepatitis B virus is spread through contact with blood or body fluids from a person infected with the virus. Mothers who are infected with hepatitis B virus can pass the virus to their newborn babies during delivery. When young children get infected with hepatitis B virus they often do not have symptoms but most will stay infected for life. This is why getting protection from the vaccine at a young age is important.

Polio is a disease caused by infection with a virus. While most polio infections show no symptoms, others can result in paralysis of arms or legs and even death. Paralysis occurs in about 1 in 200 people infected with the polio virus. Polio can be spread by contact with the bowel movements (stool) of an infected person. This can happen from eating food or drinking water contaminated with stool.

***Haemophilus influenzae* type b** is a bacteria that most commonly infects children under 5 years of age. It can cause serious and life-threatening infections including meningitis, an infection of the lining that covers the brain, and septicemia, an infection of the blood. *Haemophilus influenzae* type b infection is spread by coughing, sneezing or having close face-to-face contact. For every 20 children who get sick, 1 may die.



BC Centre for Disease Control
Provincial Health Services Authority

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/health-library/healthlinkbc-files or your local public health unit. For non-emergency health information and advice in B.C. visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.