

# The 4-in-1 Vaccine (DTaP-IPV)

## Communicable Disease Control – Factsheet

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Vaccination has saved more lives in Canada in the last 50 years than any other medical intervention. Vaccines help your immune system to recognize and fight bacteria and viruses that cause diseases.

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### What is the 4-in-1 vaccine?

The 4-in-1 vaccine protects against four different diseases. All four of these diseases can cause serious infection and can sometimes be fatal.

1. Diphtheria is caused by bacteria that can make a thick covering (membrane) in the back of the nose and throat, which can lead to breathing problems. These bacteria can also produce a harmful toxin (poison) that can cause paralysis and heart failure.
2. Tetanus, often called “lockjaw”, is caused by a toxin released by bacteria. Tetanus infections cause painful tightening of muscles (spasms). Tetanus infections can be very serious and often deadly if the breathing muscles are affected.
3. Pertussis, often called “whooping cough,” is also caused by bacteria. Whooping cough causes long coughing spells that make it hard for infants and children to eat, drink, or even breathe.
4. Polio is caused by a virus. Polio can cause a sore throat, sudden fever, nausea, muscle weakness and pain. In more severe cases, polio can also affect the spinal cord or brain, which can result in permanent paralysis, or even death.

The 4-in-1 vaccine does not contain any live bacteria or virus, so it cannot cause any of these diseases. It is approved by Health Canada and is provided free by Manitoba Health as part of your child’s routine immunizations.

### How are these diseases spread?

Diphtheria and whooping cough can be spread from person to person by coughing, sneezing, or sharing food or drinks. Diphtheria sometimes causes skin sores, and contact with these sores can also spread infection.

Tetanus does not spread from person to person. Tetanus spores live in dirt, dust and manure, and when

your child has a cut or a burn on their skin the spores can get into their body and cause infection.

Polio is spread through the feces of an infected person. Your child could come into contact with polio virus through contaminated water, food, or hands.

### Why should my child get the 4-in-1 vaccine?

Vaccination is the best way to protect your child against diphtheria, tetanus, whooping cough, and polio.

When your child is immunized you also help protect others, because someone who is vaccinated is less likely to spread infection.

### Who should get the 4-in-1 vaccine?

All preschool children between the ages of four and six need one “booster” shot of 4-in-1. It is called a booster because your child should already have had the 5-in-1 shot, at ages two, four, six, and 18 months.

If your child has not had all of their shots of 5-in-1 vaccine, they will need to follow a different schedule. Your public health nurse or doctor can explain which schedule is right for your child.

### Who should NOT get the 4-in-1 vaccine?

Speak with a public health nurse or doctor if your child has had a serious reaction to a previous dose of any vaccine including Guillain Barré Syndrome (GBS), or if they have any severe allergies.

Children with unstable neurologic (brain) conditions such as uncontrolled seizures may need to wait until their condition has stabilized to get the 4-in-1 shot.

Your child should not get vaccinated if they have a high fever. But they can still get the 4-in-1 shot if they have a mild illness, like a cold.

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Children seven years of age or older need different vaccines to protect against these diseases. For more information speak to your public health nurse or doctor.

## Possible side-effects of the 4-in-1 vaccine.

Vaccines are known to be very safe. It is much safer for your child to get this vaccine than to get diphtheria, tetanus, whooping cough, or polio.

Common reactions to the vaccine include soreness, redness and swelling where the vaccine was given. Some children may have fever, drowsiness, fussiness, loss of appetite, or an upset stomach. These are mild reactions and usually last one to two days. Acetaminophen (Tylenol® or Tempra®) can be given for fever or soreness.

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**ASA (Aspirin®) should NEVER be given to children because it can cause a severe liver and brain disease called Reye's Syndrome.**

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It is important to stay in the clinic for 15 minutes after getting any vaccine because there is a rare possibility of a severe allergic reaction. This can include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this happens after you leave the clinic, **call 911 or go to the nearest emergency department for immediate treatment.**

Some vaccines that protect against tetanus have been associated with Guillain Barré Syndrome (GBS), which is a form of paralysis that is usually temporary. People who are not vaccinated can also get GBS. Children who are vaccinated with the 4-in-1 vaccine are not believed to be at any higher risk for GBS.

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**Report any serious or unexpected side-effects to a public health nurse or doctor**

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## For more information on 4-in-1 vaccine:

Talk to your doctor or public health nurse.

Call Health Links–Info Santé in Winnipeg at 788-8200; toll-free elsewhere in Manitoba 1-888-315-9257.

Or visit:

### Manitoba Public Health website

[www.manitoba.ca/health/publichealth/index.html](http://www.manitoba.ca/health/publichealth/index.html)

### Canadian Pediatric Society website

[www.cps.ca/English/HealthCentres/immunization.htm](http://www.cps.ca/English/HealthCentres/immunization.htm)