

Rotavirus 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.

Rotavirus is a vaccine preventable disease.

Rotavirus is a virus that causes severe diarrhea in babies and young children. It causes inflammation of the stomach and intestines, and is sometimes called gastroenteritis or “gastro”. Rotavirus tends to be most severe and occurs more frequently in children between 3 months and 3 years old. Most children have had a rotavirus infection by age five. A person can get a rotavirus illness more than once, but each new infection tends to be milder.

What are the symptoms of rotavirus illness?

- Symptoms include fever, vomiting, and diarrhea.
- Diarrhea can last from 3 to 8 days.
- Severe and frequent diarrhea and/or vomiting can lead to dehydration in young children, and may require a visit to the emergency department and/or hospitalization so that intravenous (IV) fluids can be given.

How do people get rotavirus?

- Rotavirus is found in the feces (poop) of an infected person. Rotavirus is spread easily by the fecal-oral (hand to mouth) route.
- A person who has rotavirus is contagious before they start to feel sick until 24 hours or longer after their diarrhea stops.
- A rotavirus can survive on unwashed hands for about four hours.

Common ways to be exposed to rotaviruses include:

- Direct person-to-person contact with someone who is infected.
- Touching surfaces (tables, counters) or objects (toys) contaminated with a rotavirus and then placing these objects or fingers in the mouth.
- Eating food prepared by an infected person or by drinking contaminated water or other drinks prepared by an infected person.

How can rotavirus illness be prevented?

- Immunize your baby with the rotavirus vaccine. When your baby is immunized, you help protect others as well.

- Do not prepare food if you have symptoms of vomiting or diarrhea.
- Wash your and your child’s hands often with soap and warm water (or use hand sanitizer if you cannot wash your hands) after using the toilet, diapering and before preparing or eating food.
- Anyone who has diarrhea or vomiting should stay home from school, daycare or work, and should not return until they are symptom-free for 24 hours. This is especially important for those who work with food, children or the elderly, and in health care settings.
- Rotavirus vaccines only protect babies from diarrhea and vomiting caused by some rotavirus strains. They cannot protect against diarrhea and vomiting caused by other viruses.

Who can get this vaccine for free?

- The rotavirus vaccine is free for babies who are between 6 weeks to 8 months of age. The rotavirus vaccine is given at the same time as other childhood immunizations.
- Your baby may get 2 to 3 doses depending on the product used.
- The vaccine is given by mouth (not a needle). Liquid drops are placed into the baby’s mouth to swallow.
- Babies can breastfeed, eat and drink any time before or after receiving the rotavirus vaccine.
- It is important that babies get their first dose on time, because it cannot be given once a baby is 15 weeks old.
- **The last dose must be given before 8 months of age.**

Special Considerations

- The vaccine form of the rotavirus may be found in the baby’s feces (poop) for up to 10 days after they received the vaccine.
- To prevent the spread of rotavirus to others, it is very important that parents and caregivers wash their hands very well after changing the baby’s diapers.

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 not get this vaccine?

- Babies who have diarrhea or are vomiting, with or without a fever, should delay immunization.
- A baby who had a life-threatening reaction to a previous dose of a rotavirus vaccine or any components of the vaccine.
- A baby who has a history of intussusception (a condition where the intestine folds into itself causing a blockage).
- A baby who has an uncorrected congenital gastrointestinal tract malformation (e.g. Meckel's diverticulum) that would predispose them for intussusception.
- A baby whose mother took monoclonal antibody medications during pregnancy.
- A baby with a weakened immune system related to a **known disease or medical therapy** should have a consultation with a medical specialist before receiving this vaccine. However, infants exposed to or infected with HIV should be immunized according to the routine schedule. A referral is not required prior to immunization.
- A baby with a family history related to **specific diseases such as severe combined immune deficiency syndrome (SCID), or recurrent and unexplained deaths in the family must** have a consultation with a medical specialist before receiving this vaccine.

What are common reactions to this vaccine?

Vaccines are very safe and effective. It is much safer to get the vaccine than to get a rotavirus infection.

- Common reactions generally occur within 1 to 7 days and may include fever, diarrhea, and vomiting.
- Less common reactions may include irritability, loss of appetite, flatulence (gas), abdominal pain, and dermatitis.
- Intussusception normally occurs in about 34 out of 100,000 babies in their first year. The current rotavirus vaccines have demonstrated a small increased risk of intussusception between 1 and 7 cases per 100,000 doses. Intussusception related to rotavirus vaccines is extremely rare in Canada.
- Only treat a fever (at least 6 to 8 hours after immunization) **if** your child is uncomfortable, refusing fluids and not sleeping.

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

What do the vaccines contain?

RotaTeq® is a 3-dose series and contains human-bovine rotavirus reassortants G1, G2, G3, G4, and P1A, sucrose, sodium citrate dihydrate, sodium phosphate monobasic monohydrate, sodium hydroxide, polysorbate 80, diluent and Vero cell culture media. Trace amounts of fetal bovine serum may be present. DNA fragments from porcine circoviruses (PCV) 1 and 2 have been detected in RotaTeq®. The source is porcine-derived material used in the manufacturing of the vaccine. PCV-1 and PCV-2 are not known to cause disease in humans, or pose a safety risk. These viruses are not pork products and are acceptable to individuals that do not consume pork products. Preservative-free, thimerosal-free and latex-free.

ROTARIX® is a 2-dose series and contains human rotavirus RIX4414 strain (live, attenuated), produced on Vero cells. Disodium adipate, Dulbecco's Modified Eagle Medium (DMEM), sucrose, and water for injection. Preservative-free, thimerosal-free and latex-free.

Provincial immunization fact sheets are available at www.saskatchewan.ca/immunize.

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

Reference: RotaTeq® product monograph (2018). Rotarix product monograph (2021).

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.