
Rotavirus

Summary

- Rotavirus is a common cause of severe gastroenteritis for babies and preschool children.
 - Infection is caused by close person-to-person contact and touching contaminated hands or faeces.
 - Rotavirus immunisation is available free of charge to all Victorian babies.
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Rotavirus is a common cause of viral gastroenteritis for Australian babies and preschool children. Most children have had at least one infection by the age of three.

Rotavirus gastroenteritis is usually more severe than other types of gastroenteritis. Prior to the introduction of rotavirus vaccines in Australia, the best available estimates suggest that it accounted for about 10,000 hospitalisations and 115,000 doctor visits every year for children under five years of age. Since the introduction of the rotavirus vaccines onto the National Immunisation Schedule in 2007, hospital presentations have declined by more than 70 per cent.

Rotavirus immunisation is available free of charge to all Victorian babies. See your GP or local government immunisation service provider for more information.

Symptoms of rotavirus

The symptoms and signs of rotavirus gastroenteritis range from mild to potentially life-threatening, and may include:

- vomiting
- sudden onset of diarrhoea
- fever
- dehydration
- drowsiness.

Causes of rotavirus

In Victoria and other temperate regions of Australia, rotavirus gastroenteritis tends to be more common during winter. Infection is caused by close person-to-person contact and touching contaminated hands, faeces (poo) and vomit. The onset of symptoms occurs one to three days after infection. Once the child recovers, their faeces can remain infectious for up to two months.

Rotavirus infection can occur several times

It is possible to be infected with rotavirus several times. The first infection is usually the most severe. Repeated infections build up the person's natural immunity. For example, after the first infection, about four out of 10 children never get sick with rotavirus gastroenteritis again. The remainder are likely to experience less severe symptoms after later infections.

High-risk groups for rotavirus

Certain people are at increased risk of severe or even life-threatening symptoms. High-risk groups include:

- Aboriginal children
 - children or adults with immune system problems
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- organ transplant recipients
- people with gastrointestinal problems such as short gut syndrome.

Treatment for rotavirus

Treatment depends on the severity of symptoms. Most children have a mild illness that can be treated at home and resolves within five days. Treatment options may include having plenty of fluids (such as oral rehydration drinks, available from your pharmacist), and plenty of rest.

See your doctor immediately or go to the emergency department of your nearest hospital if your child refuses to drink or has worrying symptoms, for example, very frequent diarrhoea or vomiting, listlessness or drowsiness. Admission to hospital and intravenous fluid replacement may be needed in severe cases.

Prevention of rotavirus

Immunisation can dramatically reduce the risk of future infections, but general tips to prevent spreading the disease if someone is infected include:

- Wash your hands thoroughly after changing a nappy.
- Use disposable nappies while the child is sick – the elasticised leg bands help to prevent leakage of contaminated faeces.
- Dispose of nappies and used tissues carefully.
- Wash and disinfect the change table often.
- Wash and disinfect toys and other shared items regularly.
- Keep sick babies and children at home – rotavirus gastroenteritis can spread quickly through a crèche or kindergarten.
- Wash your hands before handling, preparing or eating food or drink.

Immunisation for rotavirus

In Victoria, a free vaccine is available for all babies. The vaccine contains a weakened form of the rotavirus and works by prompting the body to make antibodies. In most cases, immunised children are protected against infection. However, no vaccine is 100 per cent effective. Occasionally, an immunised child will contract rotavirus gastroenteritis, but the symptoms are usually mild.

Before rotavirus vaccine became available in Australia, almost every child was infected with rotavirus by the age of five years. About 10,000 young children were in hospital with rotavirus gastroenteritis each year and up to one young child a year died from complications.

Rotavirus vaccination started in 2007 and now more than 7,000 hospital admissions for rotavirus are prevented each year. Those people who do go into hospital are now usually less ill.

From 1 July 2017 Victoria switched brands of Rotavirus vaccine, resulting in babies receiving a two-dose course, rather than the previous three-dose course. This change occurred in all States and Territories of Australia that were using a three-dose course.

Rotavirus vaccine

The rotavirus vaccine is delivered by mouth (oral) and is made up of two separate doses given at two and four months of age. To ensure effectiveness, it is important that the vaccine is given as close to these ages as possible. The first dose can be given from six weeks of age.

If a baby has not received the first dose by 14 weeks and six days of age, they should not receive any doses of the vaccine. A baby who started but has not finished the rotavirus vaccine and is older than 24 weeks and six days should not have any further doses.

The oral rotavirus vaccine is given at the same time as other free vaccines in the National Immunisation Program. No special diet or dietary restrictions are required before or after vaccination.

Giving the rotavirus vaccine to older children ('catch-up' vaccination) is not recommended because the safety and effectiveness of the oral rotavirus vaccine have not been confirmed in older children.

Generally, the immunisations you may need are decided by your health, age, lifestyle and occupation. Together, these factors are referred to as HALO.

Before rotavirus immunisation

Before receiving the vaccine, make sure that you tell your doctor or nurse if your baby:

- is older than the recommended age ranges for the first or second dose
- is unwell (temperature over 38.5°C)
- has had a serious reaction to any vaccine
- has had a severe allergy to anything
- has a history of a chronic gastrointestinal disease
- has had intussusception or a congenital abnormality that may lead to intussusception
- is taking steroid medication
- has received a blood transfusion or blood products
- has lowered immunity due to immune deficiency, abnormal blood conditions or disorders, cancer, HIV or certain medications
- lives in a household with someone who has lowered immunity.

Side effects of the rotavirus vaccine

The oral rotavirus vaccine is generally effective and safe, although all medication can have unwanted side effects.

See your doctor for further information if you are worried about your baby.

Rare side effects of the rotavirus vaccine

There is a very small risk of a serious allergic reaction called anaphylaxis, to any vaccine. This is why you are advised to keep your child at the clinic or medical surgery for at least 15 minutes following immunisation, in case further treatment is required.

There is a very small risk of intussusception (bowel blockage) that appears to occur mainly in the first one to seven days following the first or second dose of rotavirus vaccine. Take your baby to your doctor or to the hospital if they:

- have bouts of crying
- are pulling their legs up to their stomach
- look pale
- develop vomiting
- pass blood in their stools (poo).

Rotavirus vaccine and intussusception

Intussusception is when one portion of the bowel slides into the next, much like the pieces of a telescope. When this occurs, it creates a blockage in the bowel. The blockage causes pain like severe colic.

There is evidence from Australia and overseas studies suggesting a small increased risk of intussusception in infants following the rotavirus vaccine. The risk is approximately six extra cases of intussusception for every 100,000 infants vaccinated or 14 additional babies a year getting intussusception in Australia.

In most cases in babies the cause is unknown and there is no link to rotavirus vaccine. A baby who has already had intussusception should not be given the rotavirus vaccine.

Intussusception is rare. In Australia, about 200 babies aged under 12 months get the condition each year. It occurs

most often in babies between five and 10 months of age and is more common in boys.

Where to get help

- In an emergency, always call triple zero (000)
- Your doctor
- Emergency department of your nearest hospital
- Local council immunisation service
- **NURSE-ON-CALL**. Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- **Immunisation Section, Department of Health and Human Services**, Victorian Government Tel. 1300 882 008
- **Maternal and Child Health Line**. Tel. 132 229 (24 hours, 7 days)
- **National Immunisation Infoline**. Tel. 1800 671 811
- **SAEFVIC** – the Victorian vaccine safety service Tel: 1300 882 924 #1 – the line is attended between 9 am and 4 pm and you can leave a message at all other times

This page has been produced in consultation with and approved by:

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