

Rotavirus

Rotavirus is a common cause of gastroenteritis for Australian babies and preschool children. Rotavirus is a form of viral gastroenteritis. Most children have had at least one infection by the age of three.

Rotavirus gastroenteritis is usually more severe than other types of gastroenteritis and estimates suggest that it accounts for about 115,000 doctor visits every year.

Vaccination is available free of charge to all Victorian babies. See your doctor or consult with your 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.

How rotavirus is spread

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.

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

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
- Organ transplant patients
- 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 which resolves within five days. Treatment options may include:

- Plenty of fluids
- Oral rehydration drinks, available from your pharmacist
- 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 creche 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 by 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 who do go into hospital are now usually less ill.

An oral vaccine

The vaccine used in Victoria is delivered by mouth (oral) and is made up of three separate doses given at two, four and six months of age. To ensure effectiveness, it is important that the vaccine is given as close to these ages as possible. If a baby has not received the first dose by 12 weeks and six days of age, they should not receive any doses of the vaccine. A baby in Victoria who started but has not finished the rotavirus vaccine and is older than 32 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.

Rotavirus vaccine and intussusception

There is new evidence from Australia and overseas studies suggesting a small increased risk of intussusception in infants following the rotavirus vaccine. The increased risk appears to occur mainly in the first one to seven days following the first dose of rotavirus vaccine. Studies are continuing to check this and to determine whether the increased risk extends past the first week or occurs after other doses.

What is 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 are bouts of crying, a pale looking baby who pulls their legs up, progressing to persistent crying, vomiting and sometimes blood in the bowel motion. 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. The increased risk following rotavirus vaccine would mean an additional six babies a year getting intussusception in Australia.

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 and last dose
- Is unwell (temperature over 38.5°C)
- Has had a serious reaction to any vaccine
- Has had a severe allergy to anything
- Has had 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
- If someone in your household has lowered immunity.

Side effects of the rotavirus vaccine

The oral rotavirus vaccine is effective and safe. However, all medicines can have unwanted side effects. Side effects from the oral rotavirus vaccine are uncommon, usually mild and resolve quickly. They may include:

- Fever
- Diarrhoea
- Vomiting.

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

Other extremely rare side effects

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 vaccination in case further treatment is required.

There is a very small risk of intussusception which appears to occur mainly in the first one to seven days following the first dose of Rotavirus vaccine. If your baby has long crying episodes and also looks pale or develops vomiting you should take them to your GP or to the hospital.

Treating mild side effects

Side effects usually resolve quickly. However, there are a number of treatment options to reduce the side effects of the vaccination:

- If your baby seems to be unhappy due to pain or a fever, paracetamol can be used – check the label for the correct dose (especially for children)
- Give extra fluid and do not overdress your baby if they have a fever
- If reactions are severe and persistent, or if you are worried, contact your doctor for further information.

Where to get help

- Your doctor
- Always call an ambulance in an emergency – call triple zero (000)
- Emergency department of your nearest hospital
- Your local council immunisation service
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Department of Health Victoria Immunisation Section Tel. 1300 882 008
- The Maternal and Child Health Line is available 24 hours a day Tel. 132 229
- National Immunisation Infoline Tel. 1800 671 811

Things to remember

- 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
- Vaccination is available free of charge to all Victorian babies.

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

Department of Health - Communicable Disease Prevention and Control Unit

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