

Rotavirus

for parents and caregivers...

What is rotavirus?

Rotavirus is a highly infectious virus of the intestine (gut) that causes severe diarrhoea, mostly in babies and young children. It is often accompanied by vomiting and fever. Rotavirus is the leading cause of severe acute gastroenteritis in infants causing about half of all hospitalisation for gastroenteritis in children under 5 years of age.

What are the symptoms of rotavirus?

The illness begins with the sudden onset of vomiting and watery diarrhoea which can last from three to eight days. Fever and abdominal pain may also occur. Dehydration can be very severe and may cause death if untreated. This is extremely rare in New Zealand.

How serious is rotavirus?

Severe rotavirus infections occur most commonly in infants and children between 4-24 months of age. Dehydration and weight loss requiring medical treatment or hospitalisation can occur in 1-2% of those infected.

How do you catch rotavirus?

Rotavirus is spread by the faecal-oral route and generally occurs in winter and early spring. Spread of infection within families and institutions is common as large amounts of rotavirus are present in the faeces of infected individuals. It is quite stable in the environment so contamination of hands, hard surfaces, toys, utensils and other objects is relatively easy.

How common is rotavirus?

Almost everyone in the world is infected by rotavirus by 5 years of age. Throughout the world rotavirus kills about 1 million infants and young children each year. Which is more than any other vaccine preventable disease. Nearly 90% of New Zealand children will get rotavirus by the age of 3 years. Rotavirus is responsible for 25-50% of gastroenteritis in New Zealand. Adults can also become infected but most will have no symptoms.

Who is most at risk from rotavirus?

Children under the age of 2 years are most at risk, especially those between 6-24 months.

How do you prevent rotavirus?

Thorough hand washing before preparing food, after using the bathroom, after changing nappies and cleaning up vomit limits the spread of many viruses, including rotavirus. Children with diarrhoea should not attend school or childcare centres. Vaccination against rotavirus is available.

Vaccines and vaccination against rotavirus.

Rotarix® (GSK) is the only rotavirus vaccine available in New Zealand. It has been used in other parts of the world since 2005. It is a weakened live oral vaccine that protects against several common strains of rotavirus.

The vaccine is not available free in New Zealand but it can be purchased through family doctors and costs around \$90 per dose. Doctor fees will also apply.

How effective is the vaccine against rotavirus?

Rotarix® vaccine is 74-90% effective in protecting against severe rotavirus gastroenteritis. A 96% decrease in hospitalisations and an 86% decrease in doctor visits due to rotavirus has been attributed to the vaccination.

Who should get the vaccine?

The vaccine is recommended for babies aged from 6-24 weeks. It is given orally (1ml) in 2 doses at least one month apart and both doses need to be completed by 24 weeks of age. The infant may have food or liquid, including breast milk, before or after vaccination. Infants living in a house with someone who is pregnant can be vaccinated.

Who should not have the vaccine?

Any baby with a severe allergic reaction to any of the components of the rotavirus vaccine or any baby who has had a severe allergic reaction to a previous dose of the vaccine should not be vaccinated. It should not be given to any baby with any ongoing digestive problems. The dose should be postponed for any baby with moderate to severe fever, diarrhoea, or vomiting. Immunisation of infants older than 24 weeks or children is not recommended.

Who should seek more advice before having the vaccine?

Further medical advice should be sought for any baby with a weakened immune system due to HIV/AIDS, treatment with long term steroids, or any baby who has cancer or who is undergoing treatment for cancer.¹

The vaccine should be administered with caution to infants who live with someone who is immunocompromised or receiving immunosuppressive therapy.

Are all need the doses needed?

Both doses (2) of Rotarix® are needed for maximum protection from rotavirus.

How safe is the vaccine?

The current vaccine has undergone some of the largest, most stringent clinical trials ever completed for vaccines.¹⁻³

After vaccination, parents and caregivers need to ensure they wash their hands well after changing the baby's nappies, as the babies are excreting a live virus for at least one week. Nearly 1-3% of children who receive the rotavirus vaccine get mild diarrhoea or vomiting within 7 days of the vaccination.

Other less common side effects may include excess gas in stomach or bowel, stomach pain or discomfort, spitting up of food and irritability. If any concerns arise after an immunisation, parents and caregivers should speak with their nurse or doctor. There is no evidence of moderate or serious reactions to the vaccine.

Questions about rotavirus.

- Does the vaccine protect against all diarrhoea?
The vaccine does not protect against gastroenteritis caused by other viruses or bacteria.
- Wasn't the vaccine associated with a bowel obstruction called 'intussusception'?
In the late 1990s a different rotavirus vaccine was associated with intussusception and removed from the market. The new vaccine has been tested with over 70,000 children and there has been no link with intussusception.^{2,3}

Rotavirus	Effects of disease	Side effects of the vaccine
A highly infectious virus which causes severe diarrhoea.	Severe diarrhoea, often accompanied by vomiting and fever. Young children can quickly become dehydrated and require hospitalisation.	About 1-3% of infants have mild, temporary diarrhoea or vomiting within 7 days after the vaccine.

Vaccines are prescription medicines. Talk to your doctor or nurse about the benefits or any risks.

References

1. Prevention of Rotavirus Gastroenteritis Among Infants and Children. MMWR Recommendations & Reports. 2009;58(RR-2):1-24.
2. Dennehy PH. Rotavirus vaccines-An update. Vaccine. 2007;25(16):3137-41.
3. Ruiz-Palacios GM, Perez-Schael I, Velazquez FR, Abate H, Breuer T, Clemens SC, et al. Safety and Efficacy of an Attenuated Vaccine against Severe Rotavirus Gastroenteritis. NEJM. 2006;354(1):11-22.