

Globally, rotavirus is the most common cause of severe gastroenteritis in early childhood affecting almost all children under five years of age. A vaccine is now available for infants.

Rotavirus infection

Last updated: 1 July 2012

What is rotavirus infection?

Globally, rotavirus is the most common cause of severe gastroenteritis in early childhood. Almost all children have been infected by the time they reach five years of age. In developing countries rotavirus is responsible for approximately half a million deaths per year. In developed countries such as Australia, death from rotavirus is rare but hospitalisations are common, especially in children under 2 years of age.

What are the symptoms?

Symptoms include:

- watery diarrhoea
- vomiting
- fever

In some cases severe dehydration and (rarely) death can occur. Some infants (especially under 3 months) with rotavirus infection may not show any symptoms. Symptoms usually appear between 1 and 3 days (commonly 2 days) after being exposed to the virus. The majority of otherwise healthy people infected with rotavirus, experience illness for 4 to 6 days and recover fully. Rotavirus infections occur more commonly in winter.

How is it spread?

Rotavirus infections are highly infectious and are spread by the vomit or faeces of an infected person through:

- person-to-person contact, for example touching someone who has been sick and has the virus on their hands
- contaminated objects
- contaminated food or drink

The virus may also be spread by coughing and sneezing.

Who is at risk?

- Small children who are not immune to rotavirus (from either past infection or vaccination) are at greater risk of the disease, although older people can sometimes be infected too.
- Most children have developed immunity to rotavirus by three years of age.
- Immunity to the rotaviral infection is partial. Subsequent infections are generally milder than the first infection.
- Rotavirus is more common in some remote communities.

How is it prevented?

Immunisation is recommended and is free for children under 6 months of age. In NSW, the vaccine is given as 2 oral doses, at two and four months of age, with completion of the course by 24 weeks of age.

Rotavirus can be prevented by thorough hand washing for 10 seconds using soap and water and drying with a clean towel:

- after going to the toilet
- before preparing or handling food
- before eating food
- after caring for someone with rotavirus (especially after changing nappies or soiled linen).

Never change nappies on surfaces where food is prepared or eaten.

Surfaces, objects (including toys) and clothing that have been exposed to vomit or faeces must be thoroughly cleaned with hot water and detergent. Allow objects to dry after they have been cleaned.

Children who have experienced diarrhoea should not return to childcare until 24 hours after symptoms have resolved.

Anyone with diarrhoea should not swim, wade or paddle in pools for at least 2 weeks after complete recovery.

How is it diagnosed?

Diagnosis is usually suspected based on the symptoms and can be confirmed by testing the child's stools in a laboratory.

How is it treated?

Treatment consists of oral rehydration therapy (i.e. drinking plenty of clear fluids) to prevent dehydration. Avoid undiluted fruit juice and soft drinks as they may increase dehydration and diarrhoea. Rehydration drinks that replace lost fluids are available from chemists. Some children may require hospitalisation for intravenous fluids.

Medicines to prevent vomiting and diarrhoea should not be given, especially to children, except when prescribed by a doctor.

What is the public health response?

Outbreaks of viral gastroenteritis increase in winter and spring and are common in childcare centres. Doctors and hospitals are required to notify their local public health unit whenever there are two cases of gastroenteritis that are linked.

Public health units are able to:

- advise on how to control the outbreak
- help investigate outbreaks to determine the source and mode of transmission
- advise on the exclusion of people with infection from childcare

Related Information

- Controlling Outbreaks
<http://www.health.nsw.gov.au/Infectious/factsheets/Pages/gastroenteritis-outbreaks.aspx>
- Gastroenteritis in Children Factsheet - Children's Hospital Westmead
<http://www.schn.health.nsw.gov.au/parents-and-carers/fact-sheets/gastroenteritis-in-children>

For further information please call your local Public Health Unit on 1300 066 055 or visit the New South Wales Health website www.health.nsw.gov.au