
What is Rotavirus?

Many germs, including viruses and bacteria, can cause diarrhoea and vomiting (D&V). This is called 'gastroenteritis'. The commonest cause now of D&V in young children is rotavirus. Other germs include E-coli, Salmonella, Campylobacter and Shigella. Almost every child will have a rotavirus infection before its fifth birthday. Some will get it a second time but infection in adults is uncommon because immunity is long lasting. A vaccine introduced into the routine childhood vaccine programme in 2013 should greatly reduce numbers.

Rotavirus is highly infectious and can cause outbreaks of D&V in pre-school settings and primary classes as well as in hospital. It can cause problems in any age group but especially affects babies and toddlers. It is more common in the winter months.

What are the symptoms?

Usually the child suffers from both diarrhoea (often watery but sometimes bloody) and vomiting. Sometimes there can be a mild fever and tummy pain. The illness lasts anywhere between 3 and 9 days. There can be more than 20 episodes of D&V within 24 hours so a lot of fluid can be lost. This makes infants quickly become very dry and dehydrated. If your child is having a lot of D&V it is important to seek medical advice.

How does it spread?

The commonest method of spread is from the gut to the mouth by poor hand hygiene practice. Rotavirus may also be spread to others through coughing and sneezing as well as via contaminated food, water and toys. It can survive for weeks in clean drinking water.

Is it serious?

Some babies and young children end up in hospital because of the infection. The gut is lined with villi. These are like minute 'fingers' that increase the gut surface through which food can be absorbed. Rotavirus can quickly damage the villi. If this occurs then the reintroduction of milk will worsen the diarrhoea, but will not cause vomiting.

Can it be treated?

The treatment for rotavirus gastroenteritis is to maintain the fluid balance of the child. As far as possible this is done by giving fluid by mouth, rather than into a vein. If the infant is breast fed this should continue despite the D&V, as breast milk is helpful. If the infant is bottle-fed or on a solid diet, then fluid is usually given as milk and oral rehydration fluid.

This fluid contains a correct balance of both sugar and salt and should normally only be needed for 24 to 48 hours. Even in quite severe D&V this fluid should work and keep the child well hydrated. Children will take fluids better if given frequent small amounts.

When the D&V slows down, milk or light diet can be introduced. It used to be thought that milk needed to be introduced slowly, going up from $\frac{1}{4}$ to $\frac{1}{2}$ to $\frac{3}{4}$ strength milk, changing each day. Now full strength milk is used which gives the child more calories more quickly. Sugary drinks should be avoided.

For children in hospital, when there is an improvement, they may well be discharged as long as they are taking oral fluids. This is because children usually do better in their own home so there is no need to keep a child in hospital unless there is specific treatment that can only be given in hospital.

The damaged villi always regrow. But whilst this happens the child may need to be on special milk, which does not contain lactose. There are several such milks, which can be prescribed by your GP. Eventually the villi regrow and a normal diet is then possible. Long-term gut problems after suffering from rotavirus gastroenteritis are very rare.

Can it be prevented?

In addition to babies having the vaccine the following measures will help other people keep infection free:

- ❖ Keep the home clean and hygienic by wiping surfaces and floors regularly. Clean the toilet and bathroom after use
- ❖ **Remember!** - Handwashing removes germs from the skin and stops the transfer of germs from person to person. Make sure everyone properly washes their hands. This should be done regularly and after all contact with the infected child. Use warm soapy water and keep towels clean and dry
- ❖ Keep the infected child's clothes, bedclothes, towels and flannels separate from the rest of the family
- ❖ Children with diarrhoea or vomiting should not attend nursery, playgroup or school until 48 hours after their last symptom

How do I clean properly?

- ❖ Cleaning up vomit and/or diarrhoea will need special attention:
- ❖ Wear disposable gloves (or household rubber gloves). Before removing them from the hand wash rubber gloves with detergent, warm water and dry with paper towel. Wash hands after taking them off
- ❖ Use paper towels to soak up excess liquid then a disposable cloth
- ❖ Flush solid material down the toilet or double wrap in plastic bag sacks for the domestic waste
- ❖ Wash immediate area with warm water and detergent using disposable cloths or vacuum depending on surface
- ❖ Clean hard surfaces (including taps, door knobs, toilet flush handle and seat) as above followed by freshly prepared disinfectants and follow manufacturers' directions for dilution and usage
- ❖ Clean at least 2 metres in all directions of a spillage.
- ❖ For carpets and soft furnishing consider steam cleaning otherwise clean with detergent, and thoroughly air the area until dry before allowing people back into the area
- ❖ Contaminated bed linen should be washed separately at a minimum temperature of 60°C on a full wash cycle – ideally a half load

Need further advice or information?

- ❖ NHS Inform www.nhsinform.co.uk
- ❖ NHS24 ☎ 111 www.nhs24.co.uk
- ❖ www.nhsborders.scot.nhs.uk
- ❖ Local health clinic or GP

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