



From the desk of Dr Harry

Gastroenteritis - Your Questions Answered

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Childhood gastroenteritis (commonly called *gastro*) is important because it is:

- Relatively common
- Can be confused with other childhood illnesses
- Occasionally serious

The following questions and answers will help you address the above issues and guide you on how to manage vomiting and diarrhoea in your child.

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What is gastroenteritis?

Gastro is an infection of the gastrointestinal tract. It is usually caused by a virus, however bacteria can occasionally cause gastroenteritis. The most common cause, however, is the rotavirus. Gastroenteritis can at times be associated with a fever, cough and runny nose. It is highly infectious for babies, children and adults. Fortunately infants can be vaccinated against rotavirus, and so the incidence of gastroenteritis has diminished in the last few years.



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How can I manage my child with gastro?

The trick is to offer very frequent, but small volumes of fluids. The following table offers guidelines for oral fluid administration, but the principal holds that the more frequently you can offer fluids - even every 15 or 30 minutes - the better your child will be able to tolerate them.

Approximate Volumes for waking hours (assume 18 waking hours a day):	
Less than 6 months of age	Seek medical advice. As young babies are more vulnerable and can deteriorate quickly, it is wise to see your doctor if they have gastro.
6 - 23 months	30 to 40ml every 30 minutes
2 - 8 years	50 to 60ml every 30 minutes
Over 8 years	70 to 80ml every 30 minutes
Special note – for breast fed babies	Continue breastfeeding PLUS offer approximately HALF the above fluid volumes

Only clear fluids should be taken for 24 hours during a gastroenteritis illness. Doctors recommend oral rehydration fluids such as Gastrolyte, Hydrolyte (also available as icy poles) which can be purchased at pharmacies. These are ideal but the downside is that some babies and children find the taste less than appealing.

Alternatively, you can offer your child diluted apple juice, lemonade or other juices (all diluted 1 part juice/lemonade to 4 parts water). It is important to dilute any juice/lemonade as undiluted fluids (including plain icy poles) are too strong and can actually have an adverse affect. Plain water and ordinary icy poles *can* be used but they should not be the only fluid offered. Water alone is too weak and will not replace the necessary glucose, sodium and potassium that is required.

When should my child start eating solid food after vomiting?

Your child should commence small amounts of a variety of solids after 24 hours, whether diarrhoea persists or not. Starting solids soon is necessary as keeping your child off food for more than a few days can in itself cause diarrhoea and undernourishment. An undernourished body will also take longer to heal and recover from the gastroenteritis. Among those foods that are recommended are pasta, bread, rice, dry biscuits, yoghurt, baby rice, baby cereal, toast (without butter or margarine), lean meat and fish.



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If my child develops vomiting *without* diarrhoea, is it still gastro?

Doctors feel uncomfortable diagnosing gastro unless the vomiting is accompanied by diarrhoea. Vomiting alone may indicate other possible causes such as a urinary tract infection, bowel obstruction, raised intracranial pressure (elevated pressure within the skull), meningitis, blood chemistry imbalance and infection anywhere in the body.

If your infant only has vomiting, without any diarrhoea, it is important to seek medical attention to rule out the other possibilities.

For how long is my child infectious?

This is difficult to determine and does vary. However, a good rule of thumb is that your child will no longer be infectious once their diarrhoea stops, plus two days. It is important to:

- Keep your child away from friends and other children until vomiting and diarrhoea has stopped for a couple of days.
- Keep your child at home during the illness.
- Use good hygiene including lots of hand washing after nappy changes, before preparing food and eating.
- Avoid sharing foods and drinks with others.

Dehydration

Children with gastroenteritis are also at risk of becoming dehydrated. There are several signs of dehydration, but the main three you should look for are:

- Your child's loss of playfulness, smiling and/or interest in their surroundings.
- Significantly reduced urine output, say, less than half the usual wet nappies per 24 hours.
- Pallor (pale skin) or floppiness.

If you are worried about dehydration, consult your doctor or a Hospital Emergency Department - some children who are dehydrated will need to be admitted to hospital for treatment. It is always wise to seek medical advice if you have any doubts about your child's wellbeing, the underlying diagnosis, or the extent of their dehydration.

How long can the diarrhoea continue?

Most babies and children with gastro will experience relief from diarrhoea within one week. However, it is still considered normal to have diarrhoea for up to two weeks. Beyond this, your child will require further investigation with your doctor.



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Once over the acute phase of vomiting and diarrhoea, it is very unlikely that persistent diarrhoea will result in your child becoming dehydrated again. When the diarrhoea continues for more than a few days offer small amounts of a wide range of solids such as pasta, bread, rice, yoghurt and dry biscuits. In fact any food is okay as long as it is in modest amounts.

The younger your baby, the more likely they will have a period of lactose intolerance as a result of gastroenteritis. Lactose intolerance can be identified by persistent diarrhoea that burns the skin. If your child does exhibit signs of lactose intolerance, it would be wise to reduce or even discontinue milk intake for a week from the commencement of their symptoms.

When should I seek medical help?

- If your child shows signs of dehydration.
- If your child has vomiting but not diarrhoea.

When in doubt about either of these, it is always safer to seek medical help as your child may require hospitalisation.

What happens if my child needs to go to hospital?

The main reason for hospital admission with gastroenteritis is dehydration. Loss of capacity to smile, poor urine output, poor colour, dry mouth and skin and floppiness may suggest a sick, dehydrated child. In hospital one of the management options below will be carried out:

- Oral rehydration – nursing staff will offer your child frequent, appropriate fluids and monitor for signs of worsening hydration. In particular, hospital staff will check your child's weight every 6 hours as weight loss is a sign of worsening dehydration.
- Nasogastric tube – a tube will be passed through your child's nostril, down the back of their throat and into their stomach for the infusion of rehydration solution. The insertion of the tube is uncomfortable, but only momentarily. Nasogastric fluid administration provides rapid rehydration and your child could look appreciably better within 4-6 hours.
- Intravenous rehydration - this is usually reserved for very sick children, who need immediate rehydration and blood tests.
- Clarification of diagnosis – even if your child is not dehydrated, they may require hospitalisation to clarify the underlying diagnosis. Examination of the urine, X-rays, blood tests, may all be conducted to rule out alternative problems. This is most common if your child presents with vomiting in the absence of diarrhoea.

Most children with gastro will require only a 24-48 hour hospital stay.



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How can I prevent my child developing gastro?

In early 2006 a rotavirus vaccine was released to immunise against the most common cause of gastroenteritis. The oral vaccine can be safely and effectively administered at 2 and 4 months of age by your doctor or child health nurse. The introduction of this vaccine has diminished the incident of gastroenteritis; however there are many other viral and bacterial causes that can still result vomiting and diarrhoea. Good hygiene and avoiding contact with gastroenteritis is vital at all times.

Additional Resources

- Royal Children's Hospital, Melbourne
www.rch.org.au/kidsinfo/factsheets.cfm?doc_id=5353
- Adelaide Children's Hospital
www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=152&id=2692
- Westmead Children's Hospital
<http://www.chw.edu.au/parents/factsheets/gastroj.htm>
- Mayo Clinic, America
<http://www.mayoclinic.com/health/viral-gastroenteritis/DS00085>

You can also visit Dr Harry's Blog <http://okidokiebaby.com/blog/tag/diarrhoea/>