gastroenteritis
Gastroenteritis can be caused by many different germs, and the effects of gastro on babies and children depend on several things including:

- the age of the child
- the type of infection
- how well the child was before getting the illness.

This topic has information about gastro in babies and children in Australia who are usually well before getting the infection. The most common causes of gastro in Australia are virus infections, often Rotavirus infections. The advice may not fit children from other countries.

**What is gastroenteritis?**

- Gastroenteritis (gastro) is an illness which
  - starts by causing a child to feel unwell, and not wanting to eat or drink because she feels nauseated (i.e. as though she may vomit). Often a child will vomit (be sick or ‘throw up’), for the first 24 to 48 hours.
  - then causes the child to have runny poo (diarrhoea) and often tummy pains, which can last for several days.
  - The child may also have a fever, runny nose, cough, and headache.
  - It affects people of all ages but it is more common and more severe in babies and young children.

Vomiting and diarrhoea can also be caused by many other health problems such as food poisoning, infections in other parts of the body (such as pneumonia or ear infections) and appendicitis.
What to do for gastro (a summary)

See the related section within for more detail

Have your baby or child checked by a doctor

- A child who does not want to drink and is vomiting and/or has diarrhoea can become dehydrated and needs to be checked by a doctor.

Breastfed babies

- Continue breastfeeding.
- Give extra drinks (clear fluids).

Formula fed babies and young children

- Continue milk formula (bottle feeding).
- Give extra drinks (clear fluids).

Older children with gastro

- Can continue to eat if they are hungry, but many will not eat.
- They need to have extra drinks (clear fluids).

Extra drinks (clear fluids)

- Extra drinks need to be given, but it is important to give the right drinks.
- Drinks such as soft drinks and fruit juice have too much sugar for sick babies and children unless they have extra water added.
- Oral rehydration fluids are the best drinks for babies and children with gastro.
If they refuse to drink, continue to vomit and have diarrhoea

- Keep giving them drinks of clear fluids (lots of small sips, ice blocks).
- Have them checked by a doctor again.

Starting solids again

- Babies and children can usually start solids again as soon as they seem hungry.

Diarrhoea which does not go away

- Diarrhoea can last for several days, or longer, due to gastro, but sometimes diarrhoea is caused by other problems.

Protect other children and adults

- Keep the child away from other children.
- Be very careful with hygiene, especially hand washing.

Have your baby or child checked by a doctor

- When babies and children refuse to feed or drink, and vomit and/or have diarrhoea, they can lose a lot of water from their body and they can become dehydrated. This can cause them to be very ill.
- If the child is dehydrated, she may need extra fluids (for example through a tube into the stomach) as well as extra drinks.
- It is difficult to tell how dehydrated a child is unless she is seen by a doctor or health care worker. Signs that doctors look for include being unwell and drowsy, dry lips and mouth, decreased urine (fewer wees).
A baby should usually be seen within a few hours of becoming unwell (refusing to feed, vomiting or having runny poo). It may be safe to wait a little longer for an older child, but you have the right to ask for your child to be seen at any time if you are worried.

If your child is not getting better, or is becoming more unwell, go back to your doctor.

Gastro can spread to other people in the doctor’s waiting room, so let the staff know your child probably has gastro and leave other children at home if possible.

Breastfed babies

Breast feeding should continue during gastro because:

- breast milk has the food and water in it that babies need and their bodies can get what they need from it even when they are sick
- breastfeeding can be very comforting for a sick child.

However extra drinks are needed to replace the extra water lost by vomiting and diarrhoea, and these need to be clear drinks. (see Extra drinks - clear fluids over page.)

Keep giving feeds and drinks even if the baby is vomiting. He will usually keep down some of the breast milk and drinks.

Keep giving extra drinks while the baby is vomiting or has diarrhoea.

Do not give medicines to stop vomiting or diarrhoea.
If the baby gets more unwell, becomes drowsy, refuses to drink, goes on vomiting, has a lot of diarrhoea, fewer wet nappies or does not get better fairly quickly (within a day or so), the baby should be seen again by a doctor.

Formulated babies and young children

- It is now thought best for babies and young children on infant formula (bottle fed babies and children) to stay on their formula and, as well, have extra drinks of clear fluid.

- Until recently parents were often advised to stop formula, but it seems that babies and young children recover more quickly if they can continue to have their normal milk.

- Offer small amounts of milk often, and extra clear fluids.

- Keep giving feeds and drinks even if the baby is vomiting. She will usually keep down some of the milk and drinks.

- If your baby will not drink milk, or goes on vomiting, give only clear fluids for a few hours.

- If you have needed to stop your baby having formula, start giving it to her again the next day.

- Keeping a baby or child on just clear drinks for more than a couple of days can slow down her recovery and itself cause diarrhoea.
Do not give medicines to stop vomiting or diarrhoea.

If the baby gets more unwell, becomes drowsy, refuses to drink, goes on vomiting, has a lot of diarrhoea, fewer wet nappies or wees, or does not get better fairly quickly (within a day or so), the baby should be seen again by a doctor.

Older children with gastro

- Can continue to eat if they are hungry, but many will not eat.
- If the child was well fed before he became ill, it will not harm him if he does not eat for a day or two, but he needs to have drinks.
- Give clear fluids for the first day. Even if he vomits some of the drinks, he will usually keep some of the water down.
- Give lots of small drinks often.
- Sometimes children will suck on small iceblocks made from the clear fluids.
- When he starts to feel hungry, foods like toast without butter or margarine, fruit such as pear or banana, rice, potato and chicken are often well accepted. Milk and milk products such as yoghurt can also be given.
- Keeping a child off food for several days can itself cause diarrhoea.
Don’t try any new foods while the child has gastro and for the next few days.

Do not give medicines that stop vomiting or diarrhoea.

See the doctor again if your child continues to be unwell, is refusing to drink, and/or still vomits. Also check with the doctor if diarrhoea lasts more than a few days.

**Extra drinks (clear fluids)**

- Extra drinks need to be given when babies and children have gastro, but it is important to give the right drinks.

- Drinks such as soft drinks and fruit juice have too much sugar for sick babies and children.

- Oral rehydration fluids are the best drinks for babies and children with gastro.

- These drinks are called ‘clear’ fluids (clear drinks) because they are mainly water with a small amount of extra sugars and salts. Never add salt to any drink that you make up yourself since it is very easy to add too much salt, which can be harmful.

- Clear drinks are given during gastro to:
  - replace water lost by diarrhoea and vomiting
  - give the water needed for normal health
  - provide some sugars and salts that children need to keep their strength up
The drinks should be cool (room temperature). Cold drinks or hot drinks can make a child vomit if the child is unwell.

**Oral rehydration solution**

- Oral rehydration solutions (ORS) are the best clear drinks for babies (of any age) and children with gastro because they have the right amounts of sugar, salt and water to be easily absorbed in the gut.

- You must make them up exactly according to directions on the package, and give the amount of fluid that is advised in the directions on the package.

- Most babies and children will take them and there are different flavours to choose from, but they do have a salty taste which some children refuse.

- These include Gastrolyte**, Gastrolyte-R**, Pedialyte**, Repalyte** (New Formulation) and Hydralyte** (ice blocks).

- You can get them from your chemist in Australia. Always ask the pharmacist which one would be best for your child.

- In other countries different drinks may be needed because the kind of gastro may be different.

If you find it very hard to get your baby or young child to take ORS, or you do not have ORS, it is possible to give other fluids such as cordial, fruit juice or soft drinks with extra water.
Cordial with extra water

- Cordial can also be used to make the drink taste better for a sick child, and to give the child some sugars, but you need to add more water than normal to the cordial. Do not use diet cordial.

- Mix 10 mL of undiluted cordial with 150 mL of water to give 160 mL of drink.

Fruit juice with extra water (diluted fruit juice)

- Fruit juice without extra water has too much sugar in it and this can draw water from the body into the gut, so that the baby or child can become even more dehydrated.

- Mix 50 mL of juice with 150 mL of water to give 200 mL of drink.

- This should be the juice of a fruit that the child has already had (e.g. apple or pear). If you can, don’t give any new food during gastro. This is not the time to start orange juice unless your baby has had it before.

- Fruit juice for babies.

- It is suggested that fruit juice should not normally be given to young babies (under six months). This is mainly because if babies drink fruit juice they may not drink enough milk. A few babies under four months may also react to the fruit juice.
During gastro it is important for a child to have enough to drink. So if the baby (over four months) won’t drink any other clear drinks you can try fruit juice mixed with water.

For a younger baby, or if you do not want to use fruit juice, try cordial or sugar in the water.

**Flat soft drink with extra water**

- Flat soft drink has been a popular drink for children with gastro, but it has too much sugar in it and can make a child more ill (like full strength fruit juice).
- Soft drinks like lemonade are used because children seem to like the taste of them even when they feel sick and the sugars do help them build up strength.
- Warm water should be added to get rid of the bubbles.
- Mix 50 mL of soft drink with 150 mL warm water to make 200 mL of drink.

**Water with glucose or sugar added**

- Add 10 mL (two level teaspoons) of Glucose (e.g. Glucodin) to 240 mL water to give 240 mL of drink.
- Add 10 mL sugar (two level teaspoons) to 240 mL water to give 240 mL of drink.
Quick check dilution table

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<th>How much drink</th>
<th>How much water</th>
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<td>10 mL</td>
<td>150 mL</td>
</tr>
<tr>
<td>Fruit juice (undiluted)</td>
<td>50 mL</td>
<td>150 mL</td>
</tr>
<tr>
<td>Flat soft drink</td>
<td>50 mL</td>
<td>150 mL</td>
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<tr>
<td>Glucose (e.g. Glucodin)</td>
<td>2 level teaspoons</td>
<td>240 mL</td>
</tr>
<tr>
<td>Sugar</td>
<td>2 level teaspoons</td>
<td>240 mL</td>
</tr>
</tbody>
</table>

What not to give

Do not give children with gastro:

- ‘sports’ drinks or ‘energy’ drinks (which have too much sugar and salt)
- soft drinks, fruit juice or cordial which do not have extra water
- low calorie drinks
- more than a little plain water.

If they refuse to drink, continue to vomit and have diarrhoea

- When a child is sick, she will not want to drink as much as usual, but most children with gastro will drink some fluids.
- If she will not drink anything, this might be a sign that the child is very ill or that the problem is not just gastro, and the child needs to be seen by a doctor as soon as possible.
Offer small drinks often. She might take sips from a spoon rather than a cup.

Try small iceblocks or crushed ice with a spoon.

**Starting solids again**

Babies and children can usually start solids again as soon as they seem hungry.

In the first few days after a child is recovering from gastro, it is important not to give foods that the child has not had before. Only give them things that they have had before they got sick, and which did not upset them.

Foods which are usually fine for babies and young children getting over diarrhoea and vomiting are:

- baby rice
- baby cereal
- stewed apple or pear, mashed banana
- dry biscuits
- toast without butter or margarine
- potato
- lean meat, fish.

Keeping the child off food for more than a few days can itself cause diarrhoea.

When solids are re-introduced, bowel motions (poos) may come more often and be larger than before. This is normal and will settle over a few days.
Diarrhoea which does not go away

Diarrhoea due to gastro can last for several days, or longer, but sometimes diarrhoea is caused by other problems.

- Many children have runny poos for several days after gastro, but they usually return to normal in less than a week.

- Keeping children off food can cause runny poo, so usually it is best to start giving children solids and formula when they start to feel hungry. Don’t wait until the diarrhoea has stopped.

- Gastro can damage the lining of the gut, so that lactose, which is the sugar in milk, is not absorbed as well as usual. This can cause diarrhoea which does not settle. It is called lactose intolerance. If a baby or child has lactose intolerance due to gastro, she may need to have lactose free milk and avoid foods with lactose in them for several weeks.

- Too much fruit juice can also cause diarrhoea.
Protect other children and adults

- Do not take a child who is vomiting or has diarrhoea to child care or other places where there are young children. Gastro spreads very easily among young children.

- To protect yourself and other family members, very good hygiene including cleaning and hand-washing after changing nappies and before preparing food, is needed.

Causes of gastroenteritis

- Gastroenteritis (gastro) is an inflammation of the intestines, mostly caused by viral or bacterial infections, but also protozoa e.g. giardia.

- In Australia a common cause of gastroenteritis in young children is Rotavirus (in one review over 50% of Australian children under three have required medical attention for Rotavirus gastro).

- The most common bacterial gastro in Australia is Campylobacter.

The topic ‘Feeling sick’ has other suggestions for caring for a sick child.

** Any products referred to in our health topics are usually well-known brands readily available in Australia. The brand names are given as examples only, and do not necessarily represent the best products, nor the full range of effective products on the market.
Delivering a Healthy WA

For more information contact:

- Local Community Child Health Nurse
- Local Family Doctor
- Ngala Family Resource Centre Helpline
  8.00 a.m. - 8.00 p.m. 7 days a week
  Telephone (08) 9368 9368
  Outside metro area - Freecall 1800 111 546
  www.ngala.com.au
- Parent Help Centre/Parenting line
  Telephone (08) 9272 1466 (24 hr service)
  Outside metro area - Freecall 1800 654 432

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