

Acute Diarrhoea in Children

Diarrhoea can be acute (sudden onset and lasts less than two weeks) or chronic (persistent). This leaflet deals with acute diarrhoea, which is common in children. The most important part of treatment is to give the child lots to drink.

What causes acute diarrhoea?

- **Infection** of the gut is the common cause. Many bacteria, viruses, and other 'germs' can cause diarrhoea. Sometimes the germs come from infected food (food poisoning). Infected water is a cause in some countries. Sometimes it is just 'one of those germs going about'. Viruses are easily spread from one person to another by close contact, or when an infected person prepares food for others.
- **Non-infectious** causes of acute diarrhoea are uncommon in children. For example, colitis (inflammation of the gut), food intolerance, and various rare disorders of the gut.

The rest of this leaflet deals only with infectious causes of acute diarrhoea.

What are the symptoms of acute infectious diarrhoea?

Symptoms can range from a mild stomach upset for a day or two with slight diarrhoea, to severe watery diarrhoea for several days or longer. Crampy pains in the abdomen (tummy) are common. Pains may ease each time some diarrhoea is passed. Vomiting, high temperature (fever), and headache may also develop.

Can infectious diarrhoea be prevented?

Proper storage, preparation and cooking of food, and good hygiene helps to prevent infectious diarrhoea. In particular, always wash your hands, and teach children to wash theirs:

- After going to the toilet (and after changing nappies).
- Before touching food. And also, between handling raw meat and food ready to be eaten. (There may be some bacteria on raw meat.)
- After gardening.
- After playing with pets (healthy animals can carry certain harmful bacteria).

If a child has infectious diarrhoea, the following are also recommended until symptoms go.

- Regularly clean the toilets they use. Also, wipe the flush handle and toilet seat with disinfectant (such as household bleach) after each time they use the toilet.
- Make sure they wash their hands after going to the toilet. Don't share towels and flannels.
- Do not let them help to prepare food for others.
- They should stay off school, nursery, etc, until free of diarrhoea for 48 hours.

What is the treatment for infectious diarrhoea in children?

Symptoms often settle within a few days or so as the immune system usually clears the infection. The following are commonly advised until symptoms ease.

Fluids - give the child lots to drink

The aim is to prevent dehydration (low body fluid), or to treat dehydration if it has developed. If the child is dehydrated then a doctor will advise on how much fluid to give. To *prevent* dehydration, the child should be drinking at least what they would normally drink through the day. And, *in addition*,

as a guide, give the following after each loose stool (each time they pass some diarrhoea) to replace the fluid lost by the diarrhoea:

- Children under two: 50-100 ml (a quarter to half a large cup) of fluid.
- Children aged 2-10 years: 100-200 ml (a half to one large cup) of fluid.
- Older children: as much fluid as they want, but at least 200 ml.
- If the child vomits, wait 5-10 minutes and then start giving drinks again, but more slowly (for example, a spoonful every 2-3 minutes). However, the total amount should still be as above.

Rehydration drinks are the ideal drinks to give. They are made from sachets that you can get from pharmacies. (The sachets are also available on prescription.) You add the contents of the sachet to water. Rehydration drinks provide a perfect balance of water, salts, and sugar. They are better than just drinking water alone. The small amount of sugar and salt helps the water to be absorbed better from the gut into the body. They do not stop or reduce diarrhoea, but are the best drinks to prevent or treat dehydration.

Do not use home made salt/sugar drinks as the quantity of salt and sugar has to be exact. If rehydration drinks are not available, then give water as the main drink. Also, give some diluted fruit juice now and then as this contains a little bit of sugar. It is best not to give drinks that contain a lot of sugar such as cola, pop or undiluted juice. Ice lollies are a useful extra source of fluid if a child is reluctant to drink.

The child should eat as normally as possible

Do not 'starve' a child with infectious diarrhoea. This used to be advised but is now known to be wrong.

- *Breast fed babies* should continue to breast feed if they will take it. This is in addition to extra rehydration drinks (described above).
- *Bottle fed babies* should be fed with their normal full strength feeds if they will take it. Again, this is in addition to extra rehydration drinks (described above).
- *Older children* - offer some food every now and then. However, if he or she does not want to eat, that is fine. Drinks are the most important and food can wait until the appetite returns.

Medication is not usually needed

You should not give drugs to stop diarrhoea to children under 12 years old. They sound attractive remedies, but are unsafe to give to children due to possible serious complications. However, you can give paracetamol or ibuprofen to ease a high temperature or headache.

If symptoms are severe, or persist, a doctor may ask for a sample of the diarrhoea. This is sent to the lab to look for infecting germs (bacteria, parasites, etc). Sometimes an antibiotic or other treatments are needed, depending on the cause of the infection.

What about probiotics?

Some research studies suggest that taking probiotics may reduce the duration of diarrhoea by about one day. Probiotics are dietary supplements of 'good, non-harmful' bacteria or yeasts. The theory is that these 'good' bacteria and yeasts multiply in the gut and protect the gut from the 'bad' infecting bacteria or virus. Probiotics are not available on NHS prescription. If you wish to try them you can buy them at supermarkets and other stores. Probiotics are sold as capsules, yoghurt products, etc. There is no evidence to prefer any particular form, strength, or dose.

Are there any complications that may occur from infectious diarrhoea?

Complications are uncommon in the UK and include the following:

- Dehydration and salt (electrolyte) imbalance in the body. This is the most common complication. If a child drinks well then it is unlikely to occur, or is only likely to be mild and soon recover as the child drinks. Symptoms of dehydration include: passing little urine, a dry

mouth and tongue, sunken eyes, weakness, drowsiness, cool hands or feet. Severe dehydration can be fatal as the main organs of the body need a certain amount of water to function. Occasionally, if a child becomes severely dehydrated, they need to be admitted to hospital for fluid to be given directly into a vein via a 'drip'.

- Haemolytic-uremic syndrome (HUS). This is rare. It is a disorder that can lead to kidney failure. Most cases occur following a gut infection caused by a bacteria called E. coli O157.
- Reactive complications. Rarely, other parts of the body 'react' to an infection that occurs in the gut. This can cause symptoms such as arthritis, skin inflammation, eye inflammation (conjunctivitis and uveitis).
- Spread of infection to other parts of the body. This is rare.
- Malnutrition may follow some gut infections. This is mainly a risk in developing countries.
- Persistent diarrhoea syndromes may rarely develop.
- Irritable bowel syndrome is sometimes triggered by a bout of infectious diarrhoea.

See a doctor if any of the following develop, or if any other symptoms occur that you are concerned about.

- If you suspect dehydration is developing.
- Blood in the diarrhoea.
- Vomiting for more than one day, or diarrhoea that does not start to settle after 3-4 days.
- Pains that are getting worse.
- Drowsiness or confusion.
- Infections caught abroad.

Admission to hospital is sometimes needed if symptoms are severe, or if complications develop.

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