

Excipients in children's medicines

This leaflet is about the common ingredients ('excipients') used to make up children's medicines



What are excipients?

All forms of medicine contain ingredients as well as the drug – these are called excipients. Excipients don't have any medical effect but they are needed for a variety of reasons:

- To improve the taste - sugar, artificial sweeteners or flavouring may be added to liquid medicine to make them taste better.
- To improve the texture - thickening agents may be added to liquid medicines so that they are easier to pour.
- To dissolve the medicine - small amounts of ethanol (alcohol) may be used to help a drug dissolve to make a liquid medicine.
- To make them easier to handle - special powder can be used to bulk up tablets to make them large enough to handle, as the amount of drug is usually tiny.
- To make them work better - other ingredients might be added to tablets to help them break up properly in the stomach.
- To make them last longer - preservatives might be added to improve the shelf-life of a medicine.

How can I find out which excipients are used in a medicine?

- Different medicines contain different excipients.
- The excipients are listed on the patient information sheet that comes with a medicine, under the heading "What is in this medicine?"
- The names of all excipients are listed, but the amount of each may not be given.
- If there is a risk of an allergy the amount of excipient will be listed; for example it may say this product contains 'x' mg aspartame in each dose.
- You can also get specific medicines information from www.medicines.org.uk/emc/



Are there any risks with particular excipients?

- All excipients have been reviewed by the healthcare regulatory agencies to make sure they are generally safe for use in human medicine.
- Some patients may want to avoid particular excipients for a variety of reasons.
- You should tell your doctor or pharmacist if your child needs to avoid a particular excipient, as they may be able to provide a different version of the medicine.
- However, most medicines contain only very small amounts of excipients that are unlikely to cause any problems.

Tell your pharmacist if your child needs to avoid any of the following excipients:

- **Peanut oil (Arachis):** Used to dissolve some medicines, particularly vitamin D drops. If your child is allergic to peanuts, tell your pharmacist so that a different formulation can be provided.
- **Aspartame:** An alternative sweetener that may be used instead of sugar. Children who have phenylketonuria should avoid aspartame because it is converted to phenylalanine in the body.
- **Gluten:** Most medicines can be described as gluten-free. However, medicines may occasionally contain wheat starch, which children with coeliac disease need to avoid.
- **Colourings:** Liquid medicines may contain colouring agents that some people are sensitive to. Colour-free forms are available for some medicines.
- **Sugar:** People with diabetes need to be aware of sugars in medicines. Sugar-free forms may be available.
- **Preservatives:** May be added to liquid medicines to increase their shelf-life. Preservatives such as parabens (also known as methyl, ethyl or propyl hydroxybenzoates) have been linked to potential allergic reactions. Other preservatives need to be avoided where possible in very young babies, including premature babies e.g. sodium benzoate. Other options may be needed in these children.

Excipients you may wish to avoid

The following excipients are unlikely to cause any problems but some people may prefer to avoid them.

- **Lactose:** Patients with some inherited conditions may need to avoid medicines that contain lactose. These conditions might include rare hereditary problems of galactose intolerance, total lactose deficiency or glucose–galactose malabsorption. The amount of lactose in tablets is very small, and it is unlikely to have an effect in people who are lactose intolerant.
- **Alcohol:** Ethanol (the scientific name for alcohol) may be used to help a drug dissolve to make a liquid medicine. Medicines that are specifically for children do not contain ethanol. Adult medicines may contain it, but the amount is usually very small – typically less than 100 mg per dose. Medicines that contain ethanol include ranitidine, furosemide, mannitol, phenobarbital, trimethoprim, co-trimoxazole and paracetamol.
- **Propylene glycol:** Another form of alcohol, now rarely used. If your medicine contains it you should talk to your doctor or pharmacist before giving the medicine to any child under 5 years of age.
- **Animal-derived excipients:** Some excipients are derived from animal products, which vegetarians, vegans and people of particular faith may wish to avoid. Gelatine is the most common excipient that comes from animal products. Most lactose and magnesium stearate used in medicines are from vegetarian sources.
- **Mannitol and sorbitol:** These are artificial sweeteners used in sugar-free forms of medicines. Although these can cause soft stools or diarrhoea, this is unlikely with the small amount present in medicines.

Who to contact for more information

Your pharmacist, nurse or doctor will be able to tell you more about any excipients in your children's medicines.

You can also get more information from the NHS.

England: NHS 111

Tel 111
www.nhs.uk

Scotland: NHS 24

Tel 111
www.nhs24.com

Wales: NHS Direct

Tel 0845 46 47 (2p per minute) or 111 (free)
www.nhsdirect.wales.nhs.uk

Northern Ireland: NI Direct

www.nidirect.gov.uk

www.medicinesforchildren.org.uk



Version 1, November 2018. © NPPG, RCPCH and WellChild 2011, all rights reserved. Review by November 2021.

The primary source for the information in this leaflet is the British National Formulary for Children. For details on any other sources used for this leaflet, please contact us through our website, www.medicinesforchildren.org.uk. We take great care to make sure that the information in this leaflet is correct and up-to-date. However, medicines can be used in different ways for different patients. It is important that you ask the advice of your doctor or pharmacist if you are not sure about something. This leaflet is about the use of these medicines in the UK, and may not apply to other countries. The Royal College of Paediatrics and Child Health (RCPCH), the Neonatal and Paediatric Pharmacists Group (NPPG), WellChild and the contributors and editors cannot be held responsible for the accuracy of information, omissions of information, or any actions that may be taken as a consequence of reading this leaflet.