Patient

View this article online at: patient.info/chest-lungs/cough-leaflet/coughs-and-colds-in-children

Coughs and colds in children

Coughs and colds are usually caused by infection with a germ called a virus. They normally clear away on their own. Antibiotic medicines don't help, and can cause harms, such as diarrhoea and vomiting. Paracetamol or ibuprofen may ease some of the symptoms. Make sure the child has enough to drink.

What causes coughs and colds?

Most coughs and colds are caused by germs called viruses. Many different viruses can infect the nose and throat. They are passed on by coughing and sneezing the virus into the air. An average preschool and primary school child has 3-8 coughs or colds per year. Some children will have more than this. Sometimes several coughs or colds occur one after the other. Viral infections are extremely common in young children. One recent study found that cold- and cough-causing viruses can be found in the noses of under-5s for half of the year. A child who lives with people who smoke has an increased risk of developing coughs and colds, and the colds they get may last longer.

What are the symptoms of cough and cold?

- The common symptoms are a cough and a runny nose. The cough is often worse at night. Coughing does not damage the lungs. Coughing is part of the body's natural defence against more severe lung infections, like pneumonia.
- In addition, a child may have a raised temperature (fever), a sore throat, headache, and tiredness; they may be off their food. Sometimes children may be sick (vomit) after a bout of coughing.

- A build-up of mucus behind the eardrums may cause dulled hearing or mild earache.
- Very young children often sleep a lot when they are unwell.

What are the treatments for coughs and colds?

There is no magic cure! Typically, symptoms are worse in the first 2-3 days, and then ease over the next few days as the immune system clears the virus. An irritating cough may linger for up to 2-4 weeks after other symptoms have gone. Antibiotics do not kill viruses, so are of no use for common coughs and colds. Antibiotics have harms, such as causing diarrhoea and vomiting. Using them too much can lead to bacteria in the body developing resistance to the antibiotic, meaning the treatment may not work if it is later needed for a serious infection.

Supportive treatment

Coughs and colds often do not need any treatment.

Make sure your child has enough to drink. Low body fluid (dehydration) may develop if a child has a raised temperature (fever) and does not drink much.

Resting probably helps the body to fight off viruses more quickly.

Treatment to ease symptoms

Paracetamol can ease aches and pains, headaches and fever. Ibuprofen is an alternative. Both are sold in pharmacies in liquid form for children. There are various brands - ask the pharmacist if you are unsure what is suitable.

Fever itself isn't harmful. A fever is one of the body's defences against infection, and helps to fight off infections. Having a fever often makes people feel unwell. If that's the case, anti-fever medicines such as paracetamol and ibuprofen can help them feel better.

However, if a child has a fever but is otherwise comfortable and feeling well, they don't need medication to reduce their temperature.

Saline drops for blocked nose

A popular treatment for a blocked nose in a baby is to put a few drops of salt water (saline) into the nose just before feeds. Some people feel that this helps to clear the nose to make feeding easier. There is little scientific evidence as to how well this works, but it may be worth a try if feeding is difficult. You can buy saline drops from pharmacies.

Vapour rubs

Vapour rubs are another popular treatment. They can be applied to the chest and back. Avoid application directly to the nostril area. Again, there is little scientific evidence as to how well they work.

Steam inhalation

Inhaling steam can also help relieve congestion and coughing. The safest way to do this with children is to sit in the bathroom with a hot shower/hot taps running.

Cough sweets

Sucking menthol or other medicated sweets can help ease irritating coughs and sore throats in older children.

Cold and cough remedies

Cough or cold remedies may be advertised and are sold in pharmacies. They contain various ingredients or combinations of ingredients such as paracetamol, decongestants, antihistamines and cough remedies. However, there is no convincing evidence that these cough and cold remedies work. Also, they may have side-effects such as allergic reactions, problems with sleeping or making you see or hear things that are not really there (hallucinations).

In March 2009 an important statement was issued by the Medicines and Healthcare products Regulatory Agency (MHRA). It said that parents and carers should no longer use over-the-counter (OTC) cough and cold medicines in children aged under 6 years. For 6- to 12-year-olds these medicines continue to be available (as there is less risk of side-effects in older children). However, they are only sold in pharmacies, with clearer advice on the packaging and from the pharmacist. **Note**: paracetamol and ibuprofen are not classed as cough and cold medicines and can still be given to children.

A warm drink made with honey and lemon juice can be as soothing to an irritated or sore throat as cough medicine that you buy at the chemist. Please note that honey should not be given to babies under 1 year old.

Cough is a difficult symptom to control. Sometimes it seems as if your child is coughing all the time. They may cough so hard that they are sick. This is distressing but it does not necessarily indicate that they need additional treatment from a doctor.

Other treatments

Zinc supplements

Previous research studies suggest that a mineral called zinc appears to reduce the severity of cold symptoms in healthy children. A recent review of the research on zinc supplements and the common cold found that zinc supplements may reduce the length and severity of cold symptoms, when taken within 24 hours of the first symptoms of a cold. Zinc supplements may also help to prevent colds. However, there were possible side-effects such as unpleasant taste and feeling sick (nausea). The review concluded that it is not yet clear whether zinc should be recommended as treatment for colds. More studies need to be done to work out which dose should be taken and for how long. More details can be found under 'Further Reading and References' at the end of this leaflet.

Vitamin C

There has also been research looking at vitamin C for preventing or treating colds. A recent review found that taking vitamin C regularly did not seem to prevent colds in the ordinary population. However, it did seem to reduce the length and severity of symptoms. Also, in trials where people were exposed to short periods of extreme physical stress (for example, marathon runners and skiers) vitamin C halved the risk of developing a cold. More research is needed to answer the question of whether vitamin C can help once the cold symptoms have already started.

Vitamin D

A study published in early 2017 revealed that vitamin D is also useful for preventing colds. Many people in the UK have low levels of vitamin D during the winter, and Public Health England now recommends that everyone should consider taking a vitamin D supplement during the winter.

Herbal remedies

Echinacea (a herbal treatment) and garlic have traditionally been used for treating colds. However, recent reviews of research could not find any evidence that either is helpful. The MHRA also advises that echinacea should not be given to children under 12 years old. This is because of rare allergic reactions, which can be severe.

Black elderberry extract is another natural remedy that has been used traditionally. There is some evidence that it can help to prevent and shorten colds.

What symptoms should I look out for?

Most coughs and colds get better without complications. Sometimes a more serious infection develops from an initial viral infection. For example, an ear infection, chest infection or pneumonia. Symptoms to look out for that may mean your child has more than just a cold include:

- Breathing problems - wheezing, fast breathing, noisy breathing or difficulty with breathing.

- Being unable to swallow (this may show up as excessive drooling).
- Drowsiness.
- Unusual irritability or persistent crying, in a baby, or if the baby is not taking feeds.
- A rash.
- Chest pains.
- Persistent high temperatures lasting more than five days.
- Fever in a baby aged less than 3 months (higher than 38ºC). Fever in children under 3 months is more likely to be due to a serious infection, and these children should see a doctor urgently. The exception is fever occurring within 48 hours after vaccinations, as long as there are no other worrying signs.
- Very bad (severe) headache, sore throat, earache or swollen glands.
- Fluid or pus coming out of one, or both, ears.
- Signs of dehydration - like having sunken eyes, feeling drowsy, or not passing any urine for 12 hours or more.
- A cough that persists for longer than 3-4 weeks.
- Symptoms getting worse rather than better after about five days of a cold.
- Symptoms (other than a irritating cough) lasting more than about ten days. This is particularly important if your child has mucus or phlegm (sputum) which is green, yellow or brown, as it may indicate infection with other germs called bacteria.
- Any symptom that you cannot explain.

When should I see a doctor?

Most children with coughs and colds can be managed at home without seeing a doctor.

If your child has one or more of the symptoms or signs listed above, or you are concerned about them, you should speak to a doctor urgently. This is particularly important if your child has a long-term illness or medical condition - for example, chest/breathing/heart problems or neurological disease.

See the Fever in Children (High Temperature) leaflet for more.

Doctors are skilled at checking children over to rule out serious illness. They may not be able to prescribe anything more effective for a common cough or cold, but a check-over can be reassuring.

Further reading

- Recommendations for the assessment and management of cough in children; British Thoracic Society Cough Guideline Group - BMJ (2008)
- Over-the-counter cough and cold medicines for children; Medicines and Healthcare products Regulatory Agency (MHRA), 2014
- Kenealy T, Arroll B; Antibiotics for the common cold and acute purulent rhinitis. Cochrane Database Syst Rev. 2013 Jun 4;6:CD000247. doi: 10.1002/14651858.CD000247.pub3.
- Hemila H, Chalker E; Vitamin C for preventing and treating the common cold. Cochrane Database Syst Rev. 2013 Jan 31;1:CD000980. doi: 10.1002/14651858.CD000980.pub4.
- Karsch-Volk M, Barrett B, Kiefer D, et al; Echinacea for preventing and treating the common cold. Cochrane Database Syst Rev. 2014 Feb 20;2:CD000530. doi: 10.1002/14651858.CD000530.pub3.
- Advice on Vitamin D; Public Health England, July 2016
- Nahas R, Balla A; Complementary and alternative medicine for prevention and treatment of the common cold. Can Fam Physician. 2011 Jan;57(1):31-6.
- Singh M, Das RR; Zinc for the common cold. Cochrane Database Syst Rev. 2013 Jun 18;(6):CD001364. doi: 10.1002/14651858.CD001364.pub4.
- Lissiman E, Bhasale AL, Cohen M; Garlic for the common cold. Cochrane Database Syst Rev. 2014 Nov 11;(11):CD006206. doi: 10.1002/14651858.CD006206.pub4.
- Cough (acute): antimicrobial prescribing; NICE Guidance (February 2019)
- Common cold; NICE CKS, February 2022 (UK access only)

- Byington CL, Ampofo K, Stockmann C, et al; Community Surveillance of Respiratory Viruses Among Families in the Utah Better Identification of Germs-Longitudinal Viral Epidemiology (BIG-LoVE) Study. Clin Infect Dis. 2015 Oct 15;61(8):1217-24. doi: 10.1093/cid/civ486. Epub 2015 Aug 4.
- Secondhand Smoke; Action on Smoking and Health, March 2020

Last updated by: Dr Doug McKechnie, MRCGP 12/02/2023	
Peer reviewed by: Dr Hayley Willacy, FRCGP 12/02/2023	**Next review date:** 11/02/2028

View this article online at: patient.info/chest-lungs/cough-leaflet/coughs-and-colds-in-children

Discuss Coughs and colds in children and find more trusted resources at Patient.