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Common Cold (and Other Upper Respiratory Tract Infections)

The common cold and most upper respiratory infections are caused by infection with germs (viral infections). They usually get better in a few days. This leaflet gives some tips on what to do, and what symptoms to look out for which may indicate a more serious illness.

What is an upper respiratory tract infection?

A cold is an infection of the nose and upper airways caused by a germ (virus). They are extremely common. An adult can expect 2-4 colds a year, and a young child about 3-8 colds a year. Many different viruses can cause a cold. This is why colds come back (recur), and immunisation against colds is not possible.

Infections of the throat (larynx), or the main airway (trachea), or the airways going into the lungs (bronchi) are also common. These infections are sometimes called laryngitis, tracheitis, or bronchitis. Doctors often just use the term upper respiratory tract infection (URTI) to include any, or all, of these infections. Most URTIs are due to a viral infection.



Infections of the respiratory tract

The diagram above shows the sites of a range of respiratory infections. This leaflet just deals with the common cold and URTIs. See separate leaflets about other infections of the respiratory tract and related structures, called Bronchiolitis, Pneumonia, Tonsillitis, Sore Throat, Acute Sinusitis, and Pleurisy. See also the separate leaflet called Coughs and Colds in Children.

What are the symptoms of an upper respiratory tract infection?

The common symptoms of a cold are a blocked (congested) nose, a runny nose, and sneezing. At first there is a clear discharge (mucus) from the nose. This often becomes thick and yellow/green after 2-3 days. It may be difficult to sleep due to a blocked nose. You may feel generally unwell and tired, and you may develop a mildly high temperature (a mild fever).

In other upper respiratory infections, cough is usually the main symptom. Other symptoms include fever, headache, aches and pains.

Symptoms are typically at their worst after 2-3 days, and then gradually clear. However, the cough may carry on after the infection has gone. This is because swelling (inflammation) in the airways, caused by the infection, can take a while to settle. It may take 2-3 weeks, after other symptoms have gone, for a cough to clear completely.

What is the treatment for an upper respiratory tract infection?

A main aim of treatment is to ease symptoms whilst your immune system clears the infection. The most useful treatments are:

- **Taking paracetamol, ibuprofen, or aspirin** to reduce a high temperature (fever), and to ease any aches, pains and headaches. (Children aged under 16 should not take aspirin.)
- Having plenty to drink if you have a fever, to prevent mild lack of fluid in the body (dehydration).
- If you smoke, you should try to stop for good. URTIs and serious lung diseases tend to last longer in smokers.

What about cold and cough remedies?

You can buy many other cold and cough remedies at pharmacies. There is little evidence that they help fight the infection, but they may be useful for certain symptoms. For example, a decongestant nasal spray may help to clear a blocked nose.

But remember, cold and cough remedies often contain several ingredients. Some may make you drowsy. This may be welcome at bedtime if you have difficulty sleeping because of your cold. However, do not drive if you are drowsy. Some contain paracetamol. Be careful not to take more than the maximum safe dose of paracetamol if you are already taking paracetamol tablets.

If you use a decongestant nasal spray, do not use it for more than a few days. It can have an immediate effect to clear a blocked nose. However, the effect does not last very long. If you use a nasal spray for more than 5-7 days, you may feel that your nose is becoming more blocked. This is called a rebound effect.

In March 2009 an important statement was issued by the Medicines and Healthcare products Regulatory Agency (MHRA) which says:

"The new advice is that parents and carers should no longer use over-the-counter (OTC) cough and cold medicines in children under 6. There is no evidence that they work and can cause side effects, such as allergic reactions, effects on sleep or hallucinations.

"For 6 to 12 year olds these medicines will continue to be available but will only be sold in pharmacies, with clearer advice on the packaging and from the pharmacist. This is because the risk of side effects is reduced in older children because they weigh more, get fewer colds and can say if the medicine is doing any good. More research is being done by industry on how well these medicines work in children aged 6-12 years."

Note: paracetamol and ibuprofen are not classed as cough and cold medicines and can still be given to children.

What about antibiotic medicines?

Antibiotics are not usually advised if you are normally in good health. Your immune system can usually clear the infection. Antibiotics do not kill germs which are viruses. Even if a different type of germ (called a bacterium) is the cause, antibiotics usually do little to speed up recovery from a URTI.

Antibiotics may even make symptoms worse, as some people develop side-effects such as diarrhoea, feeling sick or a rash. Antibiotics may be prescribed if you become more unwell, or if you already have an underlying (chronic) lung disease. They may also be prescribed if a complication develops, such as pneumonia - but this is unlikely to occur if you are otherwise healthy.

Some recent research developments

Research studies suggest that:

- Some preparations based on the herb of *Echinacea purpurea* (a herbal remedy) might decrease the severity of cold symptoms in adults.
- Taking medication that contains zinc appears to help. Some results from recent research trials show that zinc can reduce common cold symptoms in healthy people, if taken within 24 hours of the start of symptoms. Zinc is thought to work by interfering in the way that cold viruses reproduce and multiply. However, the best dose, way of taking it and length of treatment are currently unknown. Also, zinc cannot be used long-term because of concerns about toxicity. More research is needed to clarify these points.

What symptoms should I look out for?

Most URTIs do not cause complications. AURTI may trigger coughing, wheezing and shortness of breath in people with asthma or other lung diseases. Sometimes the infection travels to the lung tissue, sinuses, or ears. Germs (bacteria) may thrive in the mucus so some people develop a secondary bacterial infection of the lung tissue (pneumonia), ears or sinuses. Therefore, see a doctor if symptoms do not start to ease within a few days, or if you suspect that a complication is developing. In particular, symptoms to look out for that may mean more than just an URTI include:

- If high temperature (fever), wheezing or headaches become worse or severe.
- If you develop fast breathing, shortness of breath, or chest pains.
- If you cough up blood or if your phlegm (sputum) becomes dark or rusty-coloured.
- If you become drowsy or confused.
- If a cough persists for longer than 3-4 weeks.
- If you have returning (recurring) URTIs.
- If any other symptom develops that you are concerned about.

Can upper respiratory tract infections be prevented?

Prevention is difficult. Many germs (viruses) can cause a URTI. Also, many viruses that cause URTIs are in the air, which you cannot avoid. However, the following are suggestions that may reduce the risk of catching a URTI or of passing one on, if you have one:

- If you have a URTI do not get too close to others. For example, kissing, hugging, etc.
- If you have a URTI, wash your hands often with soap and water. Many viruses are passed on by touch, especially from hands that are contaminated with a virus.
- Avoid sharing towels, flannels, etc if you have a URTI, or with anyone who has a URTI.
- For children, discourage the sharing of toys belonging to a child with a URTI. If your child has a URTI, consider washing toys with soapy water after use.

Basically, common sense and good hygiene may prevent the passing on of some viruses that cause URTIs.

Exercise may help too

An interesting research study (link provided in 'Further reading & references', below) showed that people who exercise regularly are less likely to get URTIs. The study was on 1,002 people over 12 weeks during the winter. It found that the people who exercised on five or more days a week had a much lower chance of developing a URTI compared with those who did little exercise. And, if someone who exercised regularly developed a URTI, there was a good chance that symptoms would be less severe than someone (with a URTI) who did little exercise. The researchers thought this may be because exercise boosted the immune system and this may help us fight infections.

Further reading & references

- Respiratory tract infections antibiotic prescribing: Prescribing of antibiotics for self-limiting respiratory tract infections in adults and children in primary care; NICE Clinical Guideline (July 2008)
- Children's over-the-counter cough and cold medicines: New advice; Medicines and Healthcare products Regulatory Agency (MHRA), 2009
- Nieman DC, Henson DA, Austin MD, et al; Upper respiratory tract infection is reduced in physically fit and active adults. Br J Sports Med. 2010 Nov 1.
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- Chest infections adult; NICE CKS, July 2015 (UK access only)
- The Antibiotic Awareness Campaign ; NHS Choices
- Common Cold Centre; Cardiff University

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