Upper Respiratory Tract Infection

What is an upper respiratory tract infection?

Infections of the throat (larynx), or the main airway (trachea), or the airways going into the lungs (bronchi) are 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.

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

What are the symptoms of an upper respiratory tract infection?

Cough is usually the main symptom. Other symptoms include fever, headache, aches and
pains. Cold symptoms may occur if the infection also affects the nose. Symptoms typically peak after 2-3 days, and then gradually clear. However, the cough may persist after the infection has gone. This is because 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:

- **Take paracetamol, ibuprofen, or aspirin** to reduce fever (high temperature), and to ease any aches, pains and headaches. (Children aged under 16 should not take aspirin.)
- **Have lots to drink** if you have a fever, to prevent mild dehydration.
- **If you smoke**, you should try to stop for good. URTIs and serious lung diseases are more common in smokers.

**What about cold and cough remedies?**

You can buy many other cold and cough remedies at pharmacies. There is little evidence of any impact on the infection, but they may be useful for certain symptoms. For example, a decongestant nose 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 with a URTI. However, do not drive if you are drowsy. Some contain paracetamol, so be careful not to take more than the maximum safe dose of paracetamol if you are already taking paracetamol tablets.

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 risks 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 antibiotics?**

Antibiotics are not usually advised if you are normally in good health. Your immune system can usually clear the infection. Antibiotics do not kill viruses. Even if 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 and rashes. Antibiotics may be prescribed if you become more unwell, or if you already have an ongoing (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.

**What symptoms should I look out for?**

Most URTIs do not cause complications. A URTI 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. Bacteria may thrive in the mucus so some people develop a secondary bacterial infection of the lung tissue (pneumonia), ears or sinuses. Therefore, consult 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 a URTI include:

- If 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 sputum (phlegm) becomes dark or rusty coloured.
- If you become drowsy or confused.
- If a cough persists for longer than 3-4 weeks.
- If you have recurring bouts of URTI.
- If any other symptom develops that you are concerned about.

### Can upper respiratory tract infections be prevented?

Prevention is difficult. Many 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 minimise 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 - it is common sense and good hygiene that may prevent the passing on of some viruses that cause URTIs.

### Exercise may help too

An interesting research study (cited below) concluded that people who exercise regularly are less likely to get URTIs. The study of 1,002 people found that during the 12-week winter study period, those who exercised on five or more days a week had a greatly reduced 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. One theory why this may be so is that exercise may provide a boost to the immune system which may help us to combat infections like URTIs.

### References

- Chest infections - adult, Clinical Knowledge Summaries (2007)
- Respiratory tract infections, NICE Clinical Guideline (July 2008)
- Children's over-the-counter cough and cold medicines: New advice, Medicines and Healthcare products Regulatory Agency (MHRA), 2009