Chest infections and 'wheeze'

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Infections

There is no evidence that TOF children have more respiratory infections, but they may have more trouble coughing enough to clear the airways of the extra mucus during normal infections.

The cause of chest infections

Most childhood chest infections are caused by viruses. The body fights these by producing specific antibodies which endow the child with resistance to future attacks by the same virus. This defence system is called the immune system; TOF children have a normal immune system and make antibodies in the normal way.

Some viruses irritate the airways and cause them to become swollen and tight.

Viruses are not killed by antibiotics, so a doctor can only prescribe medications to help relieve the symptoms until the immune system overcomes the infection.

Why do TOFs have problems?

TOF children have respiratory infections just like other children, however, problems may occur for two reasons:

Firstly, the TOF child's airway has a less efficient mechanism for clearing the extra mucus which is produced in any chest infection. This can allow mucus to settle in the lungs. Bacteria (germs) can gather in these local accumulations of mucus and cause a more serious infection to develop.

This is often called a 'super-infection' because it is on top of the first infection – not because there is anything very special about the germ involved.

Secondly, TOF children may be more sensitive to viruses causing swelling and tightening, making it hard to move air in and out. The effect is the same as is in asthma and responds to the same type of treatment.

Antibiotics

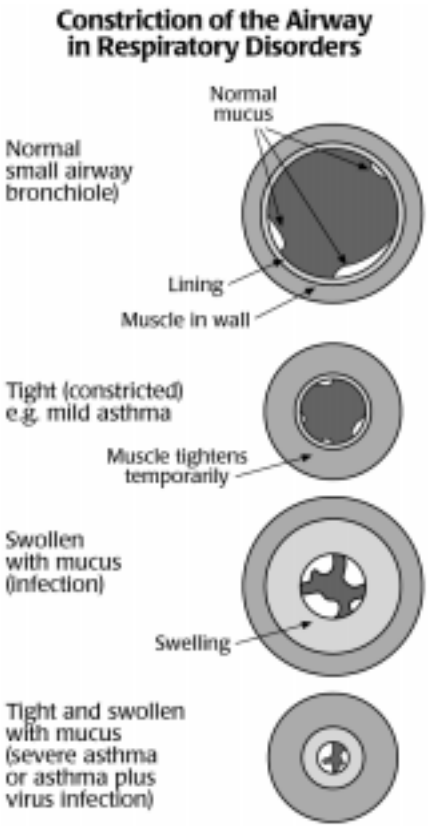
Bacteria – such as those involved in a 'superinfection' – are killed by antibiotics, so if there are signs that a virus infection has not cleared naturally then antibiotics are recommended.

Often antibiotics are given right from the start of respiratory infections in young TOFs because they are likely to have difficulty coughing up phlegm.

As the child gets older, antibiotics may not be required so much because the differences in the airway get less important.

Taking antibiotics does not stop the body's own defences from fighting the virus and the child will build up immunity in the normal way.

Most bacterial infections respond to the common antibiotics, but occasionally extra courses or wider acting ('broad-spectrum') antibiotics are required. This especially applies if an area of the lung has abnormally small airways, as with bronchomalacia or bronchiectasis (where the walls of small airways are weakened and stretched so that infection collects in tiny sacs deep in the lungs). In such cases chest physiotherapy helps to clear secretions from the lungs and antibiotics may be prescribed for an extended period (weeks or months) until the lungs are clear of signs of persisting infected phlegm.



This information has been written for the parents of TOF children by TOFS (Tracheo-Oesophageal Fistula Support) – helping children born unable to swallow.

If you have any feedback on this leaflet, please use our leaflets feedback form which is available from either the TOFS office our web site.

TOFS relies on money from membership fees, voluntary donations and other sources of charitable income to fund its activities.

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Related leaflets from TOFS which you might like to read:

1 Tracheomalacia and the TOF cough

This is available from the TOFS web site (www.tofs.org.uk) or from TOFS office

TOFS also publishes a book 'The TOF Child' which is suitable for both parents and medical professional. Details are available from TOFS

Sensitive or tight airways ('wheeze')

When the airways narrow from swelling or tightening, the child feels that he/she cannot breathe properly. This is very frightening and can be dangerous if so little air moves that the amount of oxygen reaching the blood is reduced. Prevention is therefore advisable:

i) protect the lungs by having the child immunised against whooping cough, Hib (Haemophilus influenzae), measles and, if advised by your doctor, against influenza and pneumococcus.
ii) avoid situations that cause the problem. This may be easier said than done, but for example if you know the child is sensitive to animals then it is wise to avoid getting a furry pet.
iii) one of the commonest causes of wheezing in young children (and also of more troublesome respiratory infections and ear infections) is being in an atmosphere where people smoke (passive smoking). Avoiding smoking in the home where 'chesty' children live is therefore important.

Helping the child

Keep calm and know what to do to help. The muscles which tighten around the airways react to fear and anxiety; children are very sensitive to fear in adults, so if adults can know how to deal with any breathlessness it will give the child confidence.

Learn the basic treatment steps, what to give when and how to get help when needed, and you will be helping your child.

Medications for wheeze

These fall into two main categories:

RELIEVERS (BRONCHODILATORS)

These make the tight muscles around the airway relax and are most effective when inhaled directly into the lungs. Their action is quick, which 'relieves' both the breathlessness and the fear that goes with it. The effect wears off in four hours or less, so treatment may need repeating.

Various inhaler methods allow different ages of child to breathe in the medication.

Several companies manufacture relievers, so there are a number of different names for the same kind of drug. Most in the UK come in a blue container, so this is the one to use when sudden tightness occurs.

The way to use relievers should be explained by a doctor or nurse who can make sure that the treatment plan makes sense both to the child and parents, and that when and how to get emergency help is fully understood.

Other relievers with a longer lasting action may be recommended for children with more troublesome symptoms.

PREVENTERS (PROPHYLAXIS)

Because the airways are sensitive even when they are not tight, it is often preferable to use a regular treatment which helps them to withstand whatever irritates them. This both reduces the number of breathless attacks and makes reliever treatment more effective.

Preventers are administered in the same ways as relievers. There are two main types – sodium cromoglycate (Intal, in a red and white pack) and inhaled steroids (usually in a brown or orange pack, e.g. Pulmicort, Becotide, Aerobec).

Although the steroid preventers are related to the strong steroids that are taken by mouth for other conditions, the dose is so small when breathed into the lungs that they are much safer. They are not at all like the body building steroids that some athletes take against medical advice.

If the airways become very swollen, the response to relievers may not be adequate. The child may then need a short course of stronger steroids (e.g. prednisolone), taken by mouth. Your doctor will advise when this is required. When used in this short term manner, the risks of steroids are far less than the risks of being unable to breathe.