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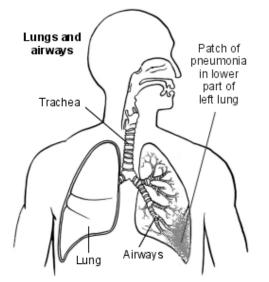
Breathing difficulties in children

Children often have coughs and colds which are usually harmless and get better quickly. Children can sometimes also have more serious breathing difficulties that need urgent treatment.

Many breathing difficulties are caused by infections but there are other causes too. The main causes of breathing difficulties include:

- Viral infections.
- Bacterial infections.
- Asthma.
- Allergies.
- Passive smoking (exposure to cigarette smoke).
- Exposure to other harmful gases (for example, really bad pollution).
- Blockage of the airway by an inhaled object, such as food or any small object.
- A genetic condition such as cystic fibrosis.

What causes breathing difficulties in children?



The respiratory tract can be divided into:

- The upper respiratory tract: nose, mouth, throat and voice box (larynx).
- The lower respiratory tract: windpipe (trachea), bronchi and lungs.

Although respiratory infections are very common, not all breathing difficulties are caused by infections. The main causes of breathing difficulties in children include the following.

Viral infections

Viral infections cause most upper respiratory infections, including colds and sore throats. These infections are usually mild and get better quickly. Some viruses can cause severe symptoms which may need treatment in hospital. Examples of common viral infections include bronchiolitis and croup.

Note: antibiotics do not kill viruses and so are not used to treat viral infections.

Bacterial infections

Bacterial infections, such as acute tonsillitis, are also very common in the upper respiratory tract. Bacterial infections in the lower respiratory tract, such as pneumonia, are much less common.

Antibiotics are effective against bacterial infections but mild upper respiratory tract infections often don't need any antibiotic treatment.

Examples of more serious bacterial infection include epiglottitis and pneumonia.

Asthma

Asthma can start at any age but most often starts during childhood. Symptoms may include wheezing and shortness of breath, which may particularly occur after exercise or at night. Severe asthma causes much more severe symptoms, including difficulty with breathing that may need **urgent medical treatment**.

Allergies

Allergies are a common cause of breathing problems. They most often affect the upper respiratory tract and cause a clear discharge from the nose, sneezing and sore eyes. Allergies may also affect the lower respiratory tract and cause asthma symptoms.

Other causes

Other causes of breathing difficulties in children include:

- Breathing in cigarette smoke.
- Long-term conditions that affect the respiratory tract, such as cystic fibrosis.
- Blockage of the airway by an inhaled object, such as a small piece of food or any other object.

If the child has inhaled something which is now blocking the airway – this is an emergency. They may suddenly become upset or start to choke, or they may collapse. If the child can cough, encourage them to clear the blockage themselves. If they cannot do this and you know how to perform basic life support for choking situations, you should start immediately and ask someone else (if possible) to call the emergency services.

What are the symptoms of breathing difficulties in children?

The common symptoms caused by breathing (respiratory) difficulties in children include:

A runny nose, stuffy nose, blocked nose and sneezing

These symptoms are often caused by a cold but may also be caused by an allergy.

Cough

Most coughs clear up within 2-3 weeks and are caused by a viral infection. Sometimes the cough may go on for a few weeks after the infection has gone but there are no other symptoms and this is also harmless.

If a cough is really bad, (that is, it occurs with severe breathing problems or it won't go away within the usual expected time) then there may be a more serious cause.

As well as common viral infections, a cough may be caused by other conditions such as croup, bronchiolitis or whooping cough. These often cause particular sounds or types of cough.

A cough that won't go away may be due to asthma or another long-term condition such as cystic fibrosis.

Coloured mucus

Yellow, green or brown mucus usually means there is a respiratory tract infection.

A high temperature (fever)

This can be a sign of infection. A high temperature can make your child irritable or drowsy. Often getting their temperature down will make them feel much better.

Wheezing

This is a high-pitched sound that comes from the chest when your child is breathing out. This is most often caused by respiratory infections or asthma.

Aches and pains

Children with respiratory tract infections often complain of aches and pains in their arms and legs and they often have a headache.

How do I know when my child is really unwell?

The signs of your child being very unwell with breathing (respiratory) difficulties that might need **urgent medical treatment** include:

Breathing rate

An increase in the rate of breathing may be the first symptom of breathing difficulty. Count the number of breaths (in and out is one breath) in one minute. The breathing rate is too fast if it is more than:

- 60 breaths per minute for a baby aged 0-5 months.
- 50 breaths per minute for an infant aged 6-12 months.
- 40 breaths per minute for a child aged 1-5 years.
- 20-30 breaths per minute for children of school age. The normal breathing rate gradually gets less as a child gets older. So, for example, a breathing rate above 30 would be too high for a child aged 6 years but a breathing rate above 20 would be too high for a teenager aged 16 years.

Increased effort of breathing

This includes the chest sinking in below the neck and below the breastbone (sternum). The ribs may also look as if they are standing out when the child is breathing in, because the muscles between them are being pulled in hard.

Flaring of the nostrils

The nostrils widen when breathing. This also shows that more effort is needed for breathing.

Grunting

A grunting sound is made when breathing out. This is the body trying to get more air into the lungs.

Colour

The skin may seem pale or a bluish colour. The lips and tongue may also appear blue. These changes mean your child isn't getting enough oxygen from breathing.

Drowsiness

Low oxygen levels may cause your child to become very tired and difficult to keep awake.

Stridor

This is a high-pitched noise when your child breathes in. It is caused by an obstruction to the flow of air in the upper airway. The causes for this include croup or epiglottitis.

If you are with a child who has any of the worrying signs mentioned above, it is important that you contact your general practitioner or if in the UK, NHS 111, for advice. If the child seems severely unwell or you are having trouble getting advice, it may be appropriate to call 999.

Although most children get better quickly from respiratory infections, occasionally the infection overwhelms the body's defences and causes sepsis, which needs emergency treatment in hospital.

See the separate leaflet called Sepsis (Septicaemia) for further information.

It is essential to know what the symptoms of sepsis are so you can seek urgent medical help. **You can find out what to look out for in a child in our separate leaflet called Child Sepsis Safety Net**.

When should you seek medical advice and treatment?

Many children's coughs and breathing (respiratory) problems improve after about 10 days, sometimes much sooner. You should take your child to the doctor if they:

- Seem to be getting much more unwell.
- Have any symptom that won't go away.

- Have problems feeding and drinking.
- Have signs of becoming very dry (dehydrated) such as a very dry tongue.
- Are coughing up mucus that is dark brown or bloody.
- Are becoming more breathless.
- Already have a diagnosed lung condition such as asthma.
- Have any condition that reduces their defence against infection (weak immune system).

Babies and young children can become very unwell very quickly so it is even more important to keep a close eye on them and obtain medical advice if you have any concerns.

What are the treatments for breathing difficulties in children?

Always act quickly and get medical help if you are worried about your child, especially if they are having any trouble breathing, seem to be getting worse or aren't getting any better.

Most infections will clear up by themselves. However, there are lots of things you can do to help your child be more comfortable and to help them to feel better more quickly. These include:

Encourage them to drink as much as they can

This often means drinking little and often. Cool water is best. Drinking lots of fluid will help to:

- Prevent their body becoming too dry (dehydrated).
- Keep them cool.
- Keep the mucus moist and easier to cough up.
- Stop their throat from feeling really dry and sore.

Paracetamol or ibuprofen

Only give paracetamol or ibuprofen if your child is distressed by a high temperature (fever). They can be used together if needed.

Make sure your child is in a comfortable and calm environment

This includes giving reassurance, keeping them cool and keeping them well away from any cigarette smoke.

Medicines

Unless your child has asthma or any other ongoing breathing (respiratory) condition, the only medicines needed are usually paracetamol or ibuprofen. Most infections in children are caused by viruses and so antibiotics aren't needed. Cough medicines don't work so aren't recommended.

Preventing the infection spreading to other people

This is very important, especially if you have other children. Important measures to reduce the spread of infection include:

- Make sure everyone washes their hands regularly.
- Use clean disposable tissues to remove any infected mucus when your child has been sneezing or coughing. Then put the used tissue in a bin and wash your hands thoroughly.

Further reading

- Fever in under 5s: assessment and initial management; NICE Guidance (last updated November 2021)
- British guideline on the management of asthma; Scottish Intercollegiate Guidelines Network (SIGN), British Thoracic Society (BTS), NHS Scotland (2003 – revised July 2019)
- Dodson H, Cook J; Foreign Body Airway Obstruction. StatPearls, January 2024.

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