

Asthma in Children & Young People Advice for Parents / Carers

**Children's Services
Women & Children's Services**

**This leaflet has been designed to
give you important information
about your condition / procedure,
and to answer some common
queries you may have.**



Information for parents and carers

What is asthma?

Asthma is a condition which affects the airways in the lungs.

The airways are lined with a thin layer of soft tissue: these are surrounded by a tough muscular outer layer. The soft inner layer produces mucus, which is removed when we cough or sneeze, helping to clear dust from the lungs and prevent infection.

When a child has asthma the soft tissue becomes inflamed and swollen causing narrowing of the airways. More mucus is produced and some of the airways may become 'blocked'.

Some 'trigger' factors produce further swelling and muscle spasm making the airway narrower. Trigger factors can include dust, pollen, house dust mites, cigarettes, smoke, exercise, virus infections, common colds, allergies and stress.

This leads to symptoms of an asthma attack including a cough, difficulty in breathing and wheezing. Not every child will get all these symptoms. Some children may experience them occasionally, while a few may experience these symptoms all the time.

Children who have a family with a history of asthma, hay fever or sometimes eczema are more likely to have asthma.

Viral induced wheeze

Not all children who wheeze have asthma. Some children have similar symptoms to asthma which are brought on by a cold or virus; this is called a 'viral induced wheeze'. It is treated in a similar way to asthma with reliever inhalers.

How is asthma diagnosed?

A diagnosis of asthma is made over a period of time from the symptoms that your child has. There is no specific test that can be done. Sometimes your child may have a chest x-ray or an allergy test.

They may be asked to monitor how well they are breathing (peak flow) over a period of time. Your child's peak flow will be measured using a peak flow meter which is a small hand held device. It measures the fastest rate of air that your child can blow out of their lungs. Children are not usually capable of doing a peak flow until they are 5 years old and even then it takes some practice to get it right. If your child is asked to use one, they will be shown how to use it.

Information for parents and carers

Devices and medication used in the treatment of asthma

Please note your child may not use all these devices or medication. Your child's Consultant or GP will decide which device and medication is best for you child.

Relievers (Broncho-dilators):

- Usually blue inhalers
- Work quickly to relieve the wheeze and tightness in the chest
- Work by relaxing the muscle spasm of the airways
- The number of times a reliever is used helps to show how well the asthma is under control. If they are being used more than 3 times a week then your GP needs to be consulted

Preventers:

- Usually brown, red and orange inhalers
- When used regularly they prevent the inflammation and swelling of the airways which occurs in asthma
- Must be taken regularly (morning and evening) to be effective
- The preventer inhaler should be used even when your child's asthma is under control and they appear well. This is to try and prevent the symptoms returning
- They are not to be used as relievers. This is not their purpose and they will not be effective
- They may cause hoarseness or a sore mouth. To help prevent this we recommend having a drink or brushing their teeth after taking a preventer inhaler

Spacer Devices:

- A spacer device is a plastic container with a mask or mouth piece at one end. The inhaler is placed in an opening at the other end
- The purpose of the spacer is to catch the medication as it is sprayed from the inhaler, allowing the child to breathe it in at their own pace. It takes away the need for the child to co-ordinate breathing in and spraying the inhaler at the same time, as adults are expected to do
- It is recommended that all children under 12 years old use a spacer to take their inhaler as they are unable to use an inhaler on its own well enough under this age
- All children experiencing an asthma attack should use a spacer with their inhaler, regardless of their age. This is because in an attack it is very difficult to take an inhaler properly without a spacer

Information for parents and carers

There are several different types of spacer device. The common ones are:

- Babyhaler
- Volumatic
- Aerochamber

Once your child is able they should stop using the mask and use the mouthpiece, as more of the medication is inhaled this way. However if necessary the mask may be used again, if your child is struggling to use the mouthpiece during an attack.

Inhaler Technique

Using the correct inhaler technique is essential to make sure your child receives the full dose of their inhaler when using a spacer device:

1. Shake the inhaler well before each spray
2. Before spraying the inhaler put the inhaler into the spacer and put the mask onto your child's face ensuring a good seal around the mouth and nose. If you are not using a mask then insert the mouthpiece into the mouth before spraying the inhaler
3. **Spray 1 puff at a time**
4. Your child should take 5 slow breaths when using an aerochamber and 10 slow breaths when using a Volumatic spacer device
5. Remove the spacer device from your child's face/ mouth
6. Wait 30 seconds for the inhaler to reactivate itself
7. Remove the inhaler from the spacer and shake the inhaler well, then repeat the steps

A new spacer device requires priming to stop the drug droplets sticking to the sides and reducing the amount of the drug your child receives. Shake the inhaler vigorously and insert into the spacer and press once, wait 30 seconds, shake the inhaler and spray again.

Your child should take 5 slow breaths when using a **small spacer such as** an aerochamber and 10 slow breaths when using a **large spacer such as** a volumatic spacer device.

Once a spacer is being used it should be washed every month in soapy water using your usual washing up liquid, and left to drip dry **without being rinsed**. This helps reduce the static in the spacer and stops the drug sticking to the sides.

Nebulisers:

- If a child is having a severe asthma attack then nebulisers are sometimes used
- The medicine is given via a mask over their face so they receive a higher dose of reliever medicine
- Nebulisers form a fine mist of the medication so it can be easily be inhaled

Information for parents and carers

Steroids:

- The steroids used are safe. They are not the same as the ones used by body builders
- Steroids open up the airways by reducing the inflammation and swelling
- Steroids may be given orally
- In the case of more severe attack of asthma and if your child is admitted to hospital the steroids may be given intravenously
- If this is the case the doctor or nurse will insert a small plastic tube into your child's vein to administer the medication
- The inhaler / nebuliser will still be given regularly until your child improves enough to have their regular inhalers

Should your child suffer a severe asthma attack or their asthma becomes out of control they may be admitted to hospital. The length of your child's stay will depend on how they react to their treatment.

What will happen during their admission?

While your child is in hospital their temperature, pulse, respiration and saturations (oxygen level in the blood stream) will be monitored regularly and recorded. If your child's saturations fall below a certain level your child may be given oxygen. This may either be given by a mask or nasal cannula. This will be discussed with you.

The following treatment will normally be given:

- A reliever inhaler will be given via a spacer device. The inhaler will be given every 20 minutes for the first hour of treatment
- The frequency will be gradually reduced to 4-6 hourly as your child's condition improves
- This should help reduce the wheeze and tightness of the chest during the attack
- A steroid will be given if your child has been wheezy for more than 24 hours, this is usually given once a day for 3 days

What happens if my child is unable to use a spacer device?

- A nebuliser will be used instead
- This will be given every 20 minutes for the first hour and then as needed, reducing as your child's condition improves
- The nebulisers will be given until your child's condition enables them to continue on the spacer device
- Steroids may be given



Information for parents and carers

If you have any question about your child's treatment and management please do not hesitate to speak to a member of nursing or medical staff.

When will my child be discharged?

They will be discharged once the doctors are satisfied their condition has settled and all their observations are normal, this will usually be once your child is able to manage the inhalers every 4 hours and remain well. Your child's peak flow may be monitored prior to discharge.

Will my child need to be seen again?

This depends upon your child's condition and treatment given. They may either be given:

- A follow up appointment in the Consultant's outpatient clinic at the hospital
- A referral to the Hospital's Community Children's Nursing Team. They may contact you by telephone to check on your child's progress or may arrange to come and visit you at home
- Advice to contact your GP for further follow up and management at your GP's surgery

Your child's GP will be sent notification of your child's admission and the treatment provided.

Advice upon discharge

Nursing and medical staff will explain to you what dose of inhalers your child will need on discharge from hospital. However the doctor will usually recommend that they continue taking the reliever inhaler at **regular intervals** until the symptoms disappear.

Following discharge if your child is struggling and needs the inhaler more often than has been recommended please seek further medical advice from you GP, NHS Direct or the Children's Community Nursing Team as soon as possible.

Additional Information may be obtained from:

Asthma UK
Summit House
70 Wilson Street
London
EC2A 2DB
Tele: 020 7786 4900
www.asthma.org.uk



Information for parents and carers

Benefits of treatment

Depending upon the type of treatment your child has, it will either help relieve their symptoms or prevent their condition from worsening.

It is important you and your child know how to use their inhalers correctly including good technique. If you are unsure please discuss further with staff or your GP.

If spacer devices are being used it is important they are cleaned regularly. Please refer either to the manufacturer's instructions or ask staff or your GP for advice.

Risks

Severe asthma attacks can be fatal, however this is rare. **If your child's asthma is severe enough for them to require an inhaler more frequently than every 4 hours at home you should seek URGENT medical advice, however please continue to give the inhaler as needed while you seek help as with holding it can be dangerous.**

Alternative treatments

There are currently no other alternative treatments for asthma.

Points to remember

- Allow your child to lead a normal life whilst keeping their symptoms under control
- Preventers should be taken every day
- Have an action plan for troublesome attacks
- Some children may "grow out" of asthma or find their symptoms become milder as they grow older

References

Northern Lincolnshire & Goole NHS Foundation Trust Guideline for the management of Asthma in Children & Young People. December 2009.

Contact details for further information

Disney Ward – Scunthorpe General Hospital 03033 302553

Children's Community Nursing Team – Scunthorpe 03033 306155

Rainforest Ward – Diana Princess of Wales Hospital, Grimsby 03033 304477

Children's Community Nursing team – Grimsby 03033 304509



Information for parents and carers

Patient Advice and Liaison Service (PALS)

The Patient Advice and Liaison Service offers confidential advice, support and information on any health related matters.

If you have a comment, concern, complaint or compliment about the care or service you have received from the Trust you can contact the PALS team as follows:

Telephone: 03033 306518

Email: nlg-tr.PALS@nhs.net

There are also offices at both the Diana Princess of Wales Hospital (near the main entrance) and Scunthorpe General Hospital (on the C Floor, near the outpatient department), should you wish to visit.

Please note: PALS should not be contacted for clinical advice relating to the content of this leaflet. The service should be contacted directly in the first instance.

Northern Lincolnshire and Goole NHS Foundation Trust

**Diana Princess of Wales Hospital
Scartho Road
Grimsby
DN33 2BA**

**Scunthorpe General Hospital
Cliff Gardens
Scunthorpe
DN15 7BH**

**Goole & District Hospital
Woodland Avenue
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