Asthma and acute exacerbations or “Flare ups”

Information for patients

This leaflet can be made available in other formats including large print, CD and Braille and in languages other than English, upon request.
What is asthma and what causes it?

Asthma is a condition which affects the airways or pipework of the lungs. It causes them to become inflamed and twitchy in action to things which you breathe in.

The swelling in your airways can be caused by an excess amount of an allergy cell in your blood stream (eosinophil).

Asthma may also be caused by an overactive immune system causing too much of a chemical called Immunoglobulin E (IgE) to be secreted.

These build up in your airways and cause the symptoms of asthma. They can also cause some other related conditions such as eczema and nasal problems.

The exact cause of why this happens isn’t really clear. Asthma is becoming more common especially in adults or older people. It does seem to run in families. Part of the increase is thought to relate to higher levels of air pollution.

What symptoms does asthma usually cause?

The most common symptoms of asthma are wheeze and coughing. These are often worse at night or early in the morning. It can also cause attacks of shortness of breath, more common with exercise.

How is asthma usually treated?

Asthma is usually treated using a combination of “preventer” and “as required” inhalers.

The “preventer” inhalers contain steroids, and sometimes muscle relaxants. These inhalers are usually taken once or twice a day depending on the particular inhaler. There are a number of different types which are available and we work hard to find one which a patient feels comfortable with.
The “as required” inhalers are for when you get symptoms. The regular inhalers should hopefully mean that you don’t need to use them very often.

If the inhalers don’t control your asthma as well as we would hope, then there are additional tablet and other treatments which can be added to these to try and improve things.

**What is a flare up of my asthma and what causes it?**

A flare up of your asthma is also known as an exacerbation. You may hear your doctor or team using this term.

During an exacerbation your airways become very inflamed and narrow. The inflammation in your airways also causes them to produce much more mucous (phlegm) which is very sticky and can be difficult to cough up.

The most common causes of exacerbations are infections. Viruses are most common but they can be caused by bacteria or a combination of both.

There are other causes of exacerbations which are not infections. These include worsening air pollution, pollen and dust, particularly hot or cold weather, smoking and forgetting to take your regular asthma medication.

**What symptoms would I get during an exacerbation of my asthma?**

The most common symptoms are worsening breathlessness, wheezing and coughing. The symptoms are usually worse at night and first thing in the morning. They may cause you to need to use more of your “as required” or blue inhaler and this might be less effective than normal.
You may cough up phlegm which is different than normal for you. It may become much thicker and / or darker. This is more common if your exacerbation has been caused by a bacterial infection.

You may also have a feeling of chest tightness when you are breathing in and out. You will most likely be more easily breathless when trying to exercise or doing normal day to day activities.

Less commonly you might also get a fever or chest pain.

If you check your peak flow regularly at home, you will notice that the number you are able to get will fall as your exacerbation develops. This can help you decide when to increase your normal treatment or visit your doctor.

What tests will help the doctor diagnose an exacerbation?

The most important things your team will use to diagnose you are to listen to you describe your symptoms and to examine your chest.

If they are concerned or they send you to hospital where you may get other tests including:

- **X-rays:** You may have an x ray of your chest. This is usually done to make sure there isn’t another reason for your symptoms. The team are looking for things like pneumonia, fluid in the chest or collapsed lungs.

- **Heart tracings:** These are known as ECGs and are recordings of the electricity being conducted through your heart. These are done to make sure that there hasn’t been any problem with your heart that has caused your symptoms.
• **Blood tests:** This will check for evidence of infection in your body and whether there are other complications such as kidney or liver problems which may be contributing to your symptoms.

You might also have a sample of blood taken out of the artery in your arm, known as an arterial blood gas (ABG).

An ABG measures the amount of oxygen and carbon dioxide in your blood. This is usually done if you have a severe exacerbation of your asthma, or if there is concern that you are not getting better. It helps guide the team as to what other treatment you may need.

• **Sputum (phlegm) samples:** If you are coughing up phlegm, particularly if you have had courses of antibiotics recently, we may ask you for a sputum sample. This could help guide which antibiotic is best for you.

**What treatment might I need?**

• **Inhalers:** Your team may increase the dose of your regular or preventer inhaler to help you recover from this flare up. They will discuss with you as to how long you will stay on the higher dose.

• **Antibiotics:** If the team believe you have had a bacterial infection which has caused this exacerbation then you may be given antibiotics to treat this. If the team believe you have had a viral infection, then you will not normally be given antibiotics as these have no effect on viruses.

• **Steroid tablets:** If the flare up or exacerbation is more severe then you may be prescribed steroid tablets called prednisolone. You are normally given 6-8 tablets per day for 5 to 10 days.
• **Nebulisers:** A nebuliser is a way of delivering medicines through a face mask. If you have an exacerbation which is more severe, then your team will give you medicines called bronchodilators which are muscle relaxants for the airways through this route. These are usually much more concentrated versions of the medicines contained in your as required inhalers.

**Other medicines**

If you are very wheezy, or not getting better as quickly as your team would like they may also use other medicines including:

- **Magnesium:** This is given through a drip (a small plastic tube with a needle) into a vein. It can improve your wheezing.

- **Aminophylline:** This is a muscle relaxant for your airways. If your team prescribe this for you it will normally be given continuously for at least 1 - 2 days through a drip. When you are feeling better, you may be switched to the tablet form of this medicine.

**Where will I be admitted to?**

If you are admitted to hospital you will normally be seen in the emergency admissions unit or the ambulatory care unit. If you need to stay in hospital for more than 48 hours, you will usually move to one of our medical wards.

Occasionally you may need to be admitted to the high dependency ward or intensive care ward if you are very unwell. The medical and intensive care teams will explain this if necessary.
When will I be able to go home?

We will get you home as soon as you are well enough. Ideally this would be when you have at least 24 hours without any nebuliser treatment.

Is there anything that can stop this happening again?

Chest infections are a part of normal life and so will occur despite everything that we can do. However, there are things which can make these flare ups less frequent.

Stop Smoking

For smokers, the best thing you can do is to stop. Smoking makes your asthma worse and makes your chest less sensitive to your asthma treatment. We will give you all the help that we can to help you to stop.

Asthma treatment

We may adjust your regular treatment to help you get better sooner. To try and cut the down the chance of another flare up, we may add or change your day-to-day treatment.

Asthma management plans

You will get to know how you feel when your asthma is flaring up. If you check your peak flow reading regularly, you will also know how this changes as you become unwell.

We can use these to write a plan for what to do to get you better sooner. This usually involves increasing your regular “preventer” treatment, when to start antibiotics or steroid tablets and when to go to accident and emergency.
What will happen after I get home?

We would usually request your GP surgery to see you within a few days of getting home. This is to make sure you are getting better as quickly as we would hope you to and to make sure you understand what all of your treatments are for.

We may also ask you to come back to see a specialist in asthma in the hospital clinic and have some detailed breathing tests.
Where can I find more information?

The British Lung Foundation website.

https://www.blf.org.uk/support-for-you/asthma

Contact Numbers

University Hospital of North Tees Lung Health
Telephone: 01642 624270

Department of Respiratory Medicine
Telephone: 01642 624936 Monday – Friday 9 am – 5 pm

Emergency Department
Telephone: 01642 382899 24 hours a day, 7 days a week
This leaflet has been produced in partnership with patients and carers. All patient leaflets are regularly reviewed, and any suggestions you have as to how it may be improved are extremely valuable. Please write to the Clinical Governance Team, North Tees and Hartlepool NHS Foundation Trust, University Hospital of North Tees or Email: nth-tr.leaflets@nhs.net

Comments, Concerns, Compliments or Complaints

We are continually trying to improve the services we provide.

We want to know what we’re doing well or if there’s anything which we can improve, that’s why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as possible. If you would like to contact or request a copy of our PET leaflet, please contact:

Telephone: 01642 624719
Monday – Friday, 9.30am – 4.00pm
Messages can be left on the answering machine and will be picked up throughout the day.

Freephone: 0800 092 0084

Email: nth-tr.PatientExperience@nhs.net

Out of hours if you wish to speak to a senior member of Trust staff, please contact the hospital switchboard who will bleep the appropriate person.

Telephone: 01642 617617
24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person Monday – Friday, 9.30am – 4.00pm. The office is based on the ground floor at the University Hospital of North Tees.

Data Protection and use of patient information

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in accordance with the Data Protection Legislation (General Data Protection Regulations and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff respect this policy and confidentiality is adhered to at all times. If you require further information please contact the Information Governance Team.

Telephone: 01642 383551 or Email: nth-tr.infogov@nhs.net

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