## So what exactly is 'Asthma'?

Asthma is when the airways become narrow. This limits the amount of air we can breathe in and out. Some people with asthma have a wheeze (whistling sound) when they breathe. You may also be breathless, have a cough and may have some nasal symptoms similar to hay-fever all the time e.g runny nose and sneezing.

If you have asthma, your airways become extra-sensitive and react with different substances known as triggers, that can worsen your asthma symptoms. The substances are allergens and include dust, pet dander, cold air, perfumes and moulds.

## So what's Mould got to do with Asthma?

Moulds are fungi which can trigger and worsen asthma in some individuals. Moulds produce tiny particles called spores which are released into the air all around us. You breathe in lots of these spores every day. Certain spores can irritate the airway, causing them to narrow, become inflamed, and produce mucus. Less air can then enter these narrowed airways and you become breathless.

Approximately 15% of asthma patients are sensitive to fungi. Some people have severe asthma made worse by fungi, referred to as Severe Asthma with Fungal Sensitivity (SAFS). Many people with SAFS have frequent exacerbations and are more likely to be admitted to hospital as a consequence; often needing high dose inhaled steroids as well as oral steroids during severe episodes.

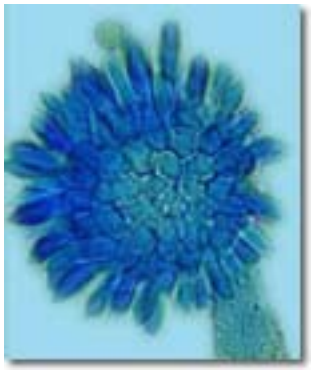
Some people with SAFS who are treated with antifungals (e.g. itraconazole) find improvements in their asthma symptoms and are able to reduce their steroid dose.

## How will I know if I am allergic to mould?

If your doctor thinks your asthma may be affected by mould, he or she may test to see if you are allergic to certain fungi. The tests include: skin prickstests, blood tests.

A guide to

# Severe Asthma with Fungal Sensitivity (SAFS)



Aspergillus terreus

Fungal Infection Trust

DISCLAIMER

Nothing contained in this leaflet is intended to be any form of medical advice and must not be taken or relied upon, as such.

Individuals must seek all such advice personally in relation to their particular circumstances.

**Medical knowledge and opinion varies according to the extent and availability of research and differing assessments of such research by different practitioners. Whilst the information contained in this leaflet has been compiled by the Fungal Research Trust from sources believed to be reliable, the Trust cannot guarantee the accuracy or completeness of such information and cannot accept any responsibility for any use of such information.**

Lung function testing

Fungal Infection Trust

chest x-rays, sputum tests, and looking into the lungs using a tiny camera (bronchoscopy).

## How is SAFS treated?

In general good asthma treatment is important:

1. Prevent symptoms: steroid inhalers are commonly used to reduce the sensitivity and inflammation in the airway. These should be taken regularly.
2. Relieve symptoms: you may be given an inhaler containing salbutamol (a drug which helps to open up the airways when you get wheezy or breathless and clear mucus).
3. Antifungal drugs (e.g.: itraconazole) may be given. These are taken twice a day for at least 6 months and can be taken for several years. Antifungal drugs are not suitable for everybody and can cause side-effects e.g. stomach upsets and can irritate your liver. Regular blood tests are needed to monitor your liver and the anti-fungal drug levels.
4. Doing your best to avoid fungi and reduce your exposure to areas with lots of fungal spores is also important.

## So where exactly are moulds found?

Everywhere! Well, almost everywhere. Since they are very small particles and travel in the air, you will often not notice moulds are around you.

***In the home***

Cellars, window sills and bedroom pillows
Bathroom: ceilings, shower curtains
Kitchen: under the sink, in the refridgerator, in some foods including: cheese, mushrooms, herbs & spices and yeasts (you can still normally eat these).
Household dust and pot plants

***At work /school***

Air vents & air conditioning systems
Bakeries, mills, breweries
Playgrounds: bark chippings, grass cuttings, dead leaves

***In the garden***

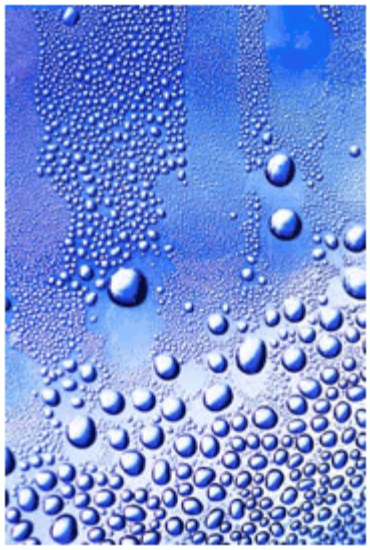
Rotting logs, grass cuttings, piles of leaves
Bark chipping – never open bags if you are sensitive
Compost & potting compost

## Minimise mould

Here are some top-tips on how you can reduce your exposure to mould:

- Ventilate your home to prevent the build up of damp – we all breathe out moisture which can accumulate on cold surfaces
- Be a detective – find the mould, search for a fuzzy growth or musty smell. Clean all hard surfaces with bleach.
- Hang clothes outside rather than on radiators.
- Fix any leaks & keep all surfaces dry.
- Replace any item if the mould cannot be removed.
- Use mould-resistant products e.g. shower curtain, paint, sealant.
- Use a dehumidifier in damp areas of the home if it cannot be ventilated.
- Ensure air from the heating and air-conditioning systems at school and work are filtered to HEPA standard (high efficiency particulate air).
- Ensure air-conditioning systems at school and work are frequently cleaned & maintained as they tend to accumulate water
- Avoid carpeting in areas where floors may get damp such as cellars and bathrooms.
- Avoid keeping too many indoor plants.
- Reduce steam - open windows when you are cooking or in the shower.
- If you have to go into an area where it is likely that there are high fungal spores wear a HEPA grade face-mask

Prevent Condensation



VENTILATE

###

Close doors to prevent moist air spreading

###

Lids on boiling pans

###

Try not to dry laundry on radiators without thorough ventilation

http://
www.nacpatients.org.uk/
damp_general

Fungal Infection Trust

Many thanks to Emma Saunders of Manchester University Medical School for drafting this leaflet for the Aspergillus Trust.

The Aspergillus Trust merged with the Fungal Research Trust in 2008. It now forms the patient's arm of the Fungal INfection Trust (www.fungalinfectiontrust.org).

The Fungal Infection Trust is one of the UK's most consistent providers of funds for fungal research, in particular Aspergillosis . Since 1990 it has raised and distributed over £3.75 million and as a direct result over 180 scientific papers have been written, each one representing a step towards finding better diagnosis or treatment for fungal diseases.

The Fungal Infection Trust also funds the Aspergillus website, the Aspergillosis Patients website, the Aspergillus Patient Community and other support materials such as this leaflet (one of a set of nine at the last count).

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Charity Commission Number 1147658

Fungal Infection Trust



## Useful websites & Groups

www.nacpatients.org.uk/face_masks
Face-mask information

www.nacpatients.org.uk/damp_general
Advice on damp buildings

www.aspergillus.org.uk/safs.htm
SAFS

www.asthma.co.uk
General information about asthma

www.aspergillus.org.uk
The Aspergillus Website

www.nacpatients.org.uk
A site developed for Aspergillosis patients.

uk.groups.yahoo.com/group/AspergillusSupport
An email discussion group for people who live with Aspergillosis.

www.facebook.com/groups/aspergillussupport
Facebook Communities

Face to face meeting held every first friday of every month in the Altounyan Suite, NW Lung Centre

www.fungalinfectiontrust.org
Fungal Infection Trust

www.nationalaspergillosiscentre.org.uk
National Aspergillosis Centre

### Glossary

If unclear about any terminology try en.wikipedia.org for clarification