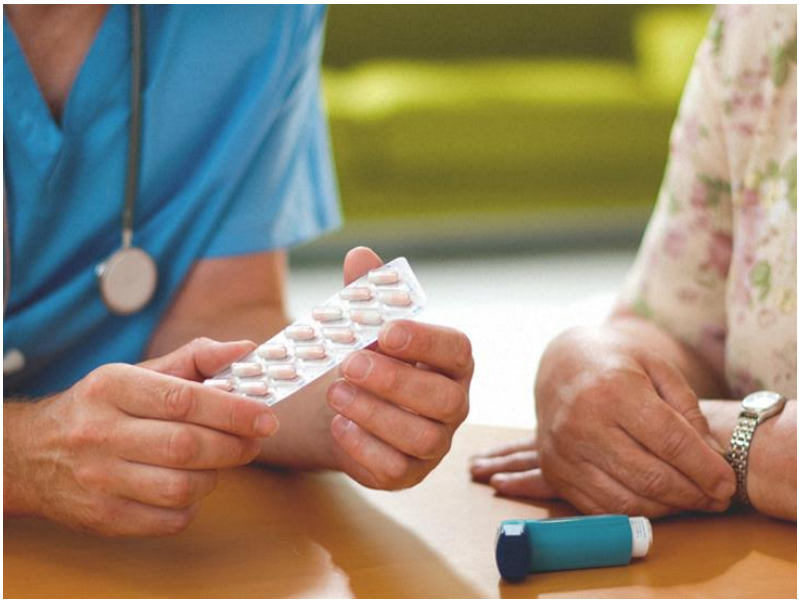
Patient Information:

Aspergillus Bronchitis



Provided by the Fungal Infection Trust

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The purpose of this booklet

This booklet will provide some useful information about the serious infection caused by *Aspergillus* and its prevention.

Nothing contained in this booklet 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.

The Fungal Infection Trust 2019

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A guide to Aspergillus Bronchitis

Overview

Aspergillus bronchitis is an illness where the *Aspergillus* fungus causes an infection in the large airways (bronchi). Unlike allergic bronchopulmonary aspergillosis (ABPA), there is not an allergic response with *Aspergillus* bronchitis. *Aspergillus* spores are found everywhere but you might breathe in particularly large amounts if you have mould in your home, or spend a lot of time gardening.

People with abnormal airways (e.g. in cystic fibrosis or bronchiectasis) have more risk of getting *Aspergillus* bronchitis after breathing in the fungus. It also affects people who have a slightly weakened immune system, which can be caused by other medications you take—such as steroid inhalers.

It cannot be passed on from one person to another; you cannot give the disease to other people.

Symptoms

People often have a long-lasting chest infection that does not improve with antibiotics before they find that they have *Aspergillus* bronchitis.

Diagnosis

To be diagnosed with *Aspergillus* bronchitis you must have:

- Symptoms of a lower airway disease for over one month
- Phlegm containing the *Aspergillus* fungus
- A slightly weakened immune system

The following are also suggestive that you have *Aspergillus* bronchitis:

- High levels of a marker for *Aspergillus* in your blood (called IgG)
- A white film of fungus coating your airways, or plugs of mucus seen on a camera test (bronchoscopy) if performed
- A good response to antifungal medication after eight weeks of treatment

The *Aspergillus* fungus causes different illnesses so it can be hard to know where *Aspergillus* bronchitis fits into the larger picture. The table below shows factors that increase your risk of having one of these illnesses.

FUNGAL ILLNESS	RISK FACTOR(S)
CPA	Lungs that were previously damaged (*e.g.* have had tuberculosis (TB) before).
ABPA	Having asthma or cystic fibrosis.
INVASIVE ASPERGILLOSIS	Having a very weak immune system, such as after having chemotherapy.
ASPERGILLUS BRONCHITIS	Bronchiectasis, or a slightly weakened immune system (*e.g.* using steroid inhalers).

Treatment

The antifungal medicine Itraconazole (Originally Sporanox® but now several other tradenames) may keep *Aspergillus* bronchitis under control. Your symptoms should start improving after taking Itraconazole for four weeks.

People taking itraconazole need to have their blood pressure taken, as well as having regular blood tests. This checks that you are on the right dose and that enough of the medicine is getting into your blood. Some people may need other medicines which their doctor will discuss with them individually. The physiotherapist can also teach you

exercises to make it easier clearing phlegm from your lungs, which can help improve your breathing.

It is also very important to continue taking other medications to control other health problems that you have.

A guide for the use of Amphotericin B via Nebuliser

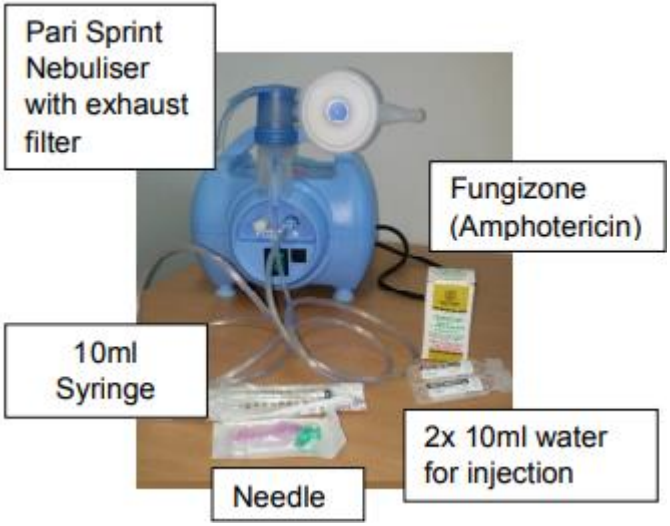
What is Amphotericin B and why is it used?

- Amphotericin B is a medicine used to treat fungal infections.
- Amphotericin B can be given intravenously but you have been given it by nebuliser as this means more drug will be able to get into your lungs where it is needed. A nebuliser turns your liquid medicine into a mist which you breathe in.

Are there any side effects?

The most common side effects that you may get are some chest tightening, wheeze or a cough. You should let your doctor know if this is causing you problems.

Other side effects include feeling sick or dizzy or having a bad taste in your mouth after taking the drug, but these should get better quickly.



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How to set up your nebuliser

1. Wash your hands. You should take a Ventolin (salbutamol) nebuliser before the amphotericin B to open up your airways.

2. Attach the needle to the syringe. Draw up 10ml of water for injection.

3. Add the 10ml of water to the amphotericin and shake gently until dissolved.

4. Draw back 2ml of solution.

5. Add solution to your nebuliser chamber (open cap to access chamber).

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6. Draw up 2ml more of water for injection.

7. Add to the chamber.

8. Connect your nebuliser up (use a new filter pad each time)

9. Throw the needle and syringe away in the sharps bin.

You can keep your made up solution for 24 hours in the fridge or 8 hours out of the fridge. Make sure it is at room temperature before using it as cold droplets can irritate your airways.

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Tips for using your nebuliser

- You need to be alone in a room with the door closed and a window open whilst having your nebuliser. Keep the window open for 30 minutes afterwards.
- Make sure you have enough supply of needles, syringes, water for injection, filter pads and the drug to last until your next appointment with your doctor.
- You can swap your full sharps bin for a new one at your local pharmacy/ G.P.
- You will need to keep the drug in the fridge so make sure you have enough space.
- You should wash your nebuliser after each use: take apart all the pieces, wash with warm water and washing up liquid, and leave to air dry for at least 4 hours

Once a week the Pari Sprint nebuliser should be sterilised e.g. in boiling water for 5 minutes.

If you have problems/questions regarding your nebuliser, Wythenshawe hospital's chest clinic can be contacted on 0161 291 2841

How can I reduce the risk of Aspergillus Infection?

What is Aspergillus?

Aspergillus species are fungal organisms with a wide distribution in nature. The fungus is most common during autumn and winter in the Northern Hemisphere, frequently found in dust, decaying material (such as compost, soils), plants, building materials, airborne dusts (household, construction sites or building renovation sites), air conditioning or heating vents, insulating materials (walls, ceilings, water cylinders) and anything else that involves disturbing potentially mouldy material.

How do you get infections?

Transmission by air is the commonest route. *Aspergillus* fungus produces millions of tiny, invisible spores small enough to be inhaled and start to settle and grow inside the airspaces of the lungs. Illnesses caused by *Aspergillus* infection are collectively called aspergillosis.

How can I prevent Aspergillus infection?

Aspergillus cannot be completely avoided in the environment but the risk of infection can be reduced:

- ✔ Avoid places where *Aspergillus* spores are abundant – forests, gardens, compost heaps, damp bark or wood chippings, grain stores, rotting vegetation, dead leaves, and building construction or renovation areas.
- ✔ The household environment and furniture surfaces should be kept clean, dust-free and dry to minimise the accumulation of fungus and moulds. (see https://aspergillosis.org/damp-homes/). Remove any potted and ornamental plants in the household
- ✔ Avoid activities with a high risk of *Aspergillus* exposure, such as gardening, compost making, building construction, and house cleaning.
- ✔ Don't smoke marijuana or tobacco, as they contain much *Aspergillus* and it can further weaken the immune defence system in your lungs and increases your risk of infections.
- ✔ Wear a mask that filters spores, if a high risk environment is unavoidable, could be helpful (HEPA specification for tiny particulates FFP2 or FFP3).
- ✔ Change your pillow regularly (ie 3 monthly and before discharge from hospital after chemotherapy or transplantation), as research has indicated that pillows are harbourers of *Aspergillus*.

- ✔ Always ensure you take your medical prescriptions as instructed and attend your doctor's appointments. See your doctor promptly when you feel worse or develop new symptoms.
- ✔ If on immunosuppressive drugs, you may be asked to attend for blood tests. It is good advice to faithfully attend every appointment, as any changes in your immune system's ability to fight off infection can be quickly spotted by blood tests (i.e. neutrophil count changes) and advice given to avoid infections before the infection is established.
- ✔ In addition, good hygiene and a healthy lifestyle will help improve your body's immune defence against *Aspergillus* and other infections.
- ✔ Eat a balanced diet. The body and immune system needs optimum nutrition in order to function well. Try to eat fresh food, at least five portions of fruit and vegetables per day.
- ✔ Take regular exercise, get enough rest and sleep every day.
- ✔ There is some evidence that stress can further weaken our immunity and also reduce our well-being. While many life stresses cannot be totally be avoided, you can discover your own means of

relaxation. Some complementary therapies such as massage and meditation can be very relaxing, and mindfulness can help control stress.

How is Aspergillus infection diagnosed?

Symptoms give clues to the diagnosis. The doctor may perform tests to check your lung functions and airflow regularly. Some special tests may also be performed to confirm suspected *Aspergillus* infection and rule out other illnesses.

Tests may include:

- Getting a sample of sputum (phlegm) to look for *Aspergillus* spores and fungus.
- Blood tests for:
    1. Blood proteins (antibodies) that are developed to counteract *Aspergillus*.
    2. A*spergillus* substances (antigens) that are produced by the fungus during infection.
- X-ray and computerised tomography (CT) scan gives information about lung abnormalities.

Further information about these tests can be provided by your doctor.

What is the treatment for aspergillosis?

1] Anti-fungal drugs – these can reduce the activity of the fungus and improve symptoms

2] Surgery- these are used to theA single fungus ball in the sinuses or in a single lung cavity in one lung may need to be surgically removed. However, lung function in patients with such problems may preclude safe surgery.

3] Embolisation - the main associated problem, namely haemoptysis (bleeding), can be dealt with via embolisation. Embolisation is probably now the method of choice for treating the haemoptysis in virtually all cases. Often the haemoptysis will recur due to new blood vessels developing but it is possible to repeat the procedure.

A guide to Nutrition and Health

Nutrition and the immune system

Maintaining a healthy weight for your height is also important but is not always easy to do when you have a chronic health condition. This is often expressed as Body Mass Index (BMI) or weight in kilograms over height in metres squared (eg 60Kg person, 1 m68 tall, BMI= 60 divided by 2.82= 24).

A BMI between 20 and 25 is healthy, lower than this and you may be underweight and undernourished, over this you are likely to be overweight. Being seriously underweight (BMI 16 and below), or significantly overweight (BMI of 31 and above) can weaken the immune system.

Vitamins and minerals are essential in boosting your immune system and helping you fight off infection. Having a good intake of vitamin and mineral rich foods: colourful fruit and vegetables, wholegrains, eggs, meat, fish is important. Frozen vegetables are also high in vitamins.

1. Cooking eggs well and avoiding undercooked/raw eggs, eg: in home-made mayonnaise and mousses.
2. Cooking meat well especially chicken and pork.
3. Eat all foods within best before and use by dates.

4. In your fridge, store meat and poultry well away from food which will be eaten raw.

Exercise has been shown to boost the immune system in a variety of diseases. Regular exercise may help, even relatively gentle activity can be beneficial: walking, gardening, cycling and swimming. Exercise in the swimming pool helps reduce impact on joints and may be easier if you are breathless.

Diet and your energy levels

Energy is linked to many things e.g. emotions, sleep levels, exercise and diet. Where diet is concerned it may help to bear in mind the following:

- Regular meals help maintain even blood sugar levels and therefore a constant supply of energy. Also aim to have a breakfast consisting of a source of protein (eggs, baked beans/yoghurt) and of starch (porridge/toast) as it seems that by mixing these two nutrients, better energy levels are maintained. Main meals tend to naturally consist of a mixture of the two e.g jacket potato (starch) and baked beans and cheese (protein) or a sandwich with some form of protein filling (egg/ cheese/meat/fish).

- Maintain even sugar levels: by not going for more than 3-4 hours without food, and avoiding high sugar foods. There is growing interest in the Glycaemic Index (GI) of different starchy foods (the amount of insulin released as a result of eating a particular

food). The higher the GI, the more insulin is produced, sugar levels drop and this can result in fatigue. Choose low GI foods where possible e.g. wholemeal /wholegrain bread, wholegrain /Basmati rice, al dente pasta, jacket potato (not mash). Having a starchy food with a source of protein can also lower its GI, for example have a jacket potato with tuna or bread and ham in a sandwich.

- Drink fluids throughout day, you need about 3-4 pints or 1.5-2 litres per day. This should not all be taken as caffeine/sugar containing drinks.

- If eating makes you breathless or your appetite is small, smaller more frequent meals may be better & easier for you to tolerate.

- Again, regular exercise can help boost energy levels. Diet and steroid therapy If you are on long term, or frequent steroid therapy, you may experience side effects: weight gain or sometimes loss, also weakened muscles and bones.

- To protect muscles, aim for a good protein intake (have a source of protein at each meal). Exercise will also help: walking regularly, lifting gentle weights and swimming.

- For bones, calcium and vitamin D are important. Calcium is found most abundantly in dairy foods. Three portions a day should cover most adults' needs

e.g. one yoghurt, one helping of cheese and a milky drink. If you do not like dairy foods, fish with bones e.g. sardines, pilchards, whitebait, also white bread, scones, spinach are also good sources. For vitamin D, eat oily fish with bones e.g. sardines, pilchards, herrings, tuna, trout, and also vitamin D supplemented margarine (most brands are supplemented). Vitamin D is also synthesised by the skin as a result of sun exposure. 5-10 minutes per day are sufficient, on hot days make sure this is outside the peak sun burning hours of 11 am to 3 pm.

- The evidence on the benefits of calcium and vitamin D supplementation via tablets (over and above the daily recommended amount for these nutrients) for those on long-term steroid therapy is a little hard to interpret. Different studies (done on patients with conditions such as chronic inflammatory bowel disease and asthma) draw different conclusions. If you are concerned about potential bone loss, discuss the possibility of supplements with your specialist doctor. This may be most appropriate if you do not eat calcium and vitamin D rich foods regularly. If you are gaining more weight than you are happy with, the following could help:

- Cutting down on high fat foods. These include cheese, most puddings, fried foods, pastry, meat products eg sausages and pies, chips. Alternatively choose lean meat or fish, boiled/jacket potatoes,

pasta, boiled rice instead and as much fruit and vegetables as you like, as well as low fat dairy foods: semi skimmed milk, low fat yoghurt, cottage/lower fat cheeses.

- Again exercise may be helpful.

Examples of food with different GI values

High GI	Intermediate GI	Low GI
Glucose	Sucrose	Fructose/Lactose
Maltose	Honey	All Bran/Muesli
Lucozade	Sports Drinks	Porridge/Special K
Jelly beans	Fanta/Cola	Sultana Bran
Cocopops	Shreddies	Barley
Cornflakes	Sustain	Bulgar Wheat
Rice Krispies	Ryvita	Basmati Rice
Weetabix	Oatmeal Biscuits	Noodles/Pasta (all types)
Shredded Wheat	Shortbread*	Fruit Loaf
Brown/Wholemeal Bread	Arrowroot	Heavy Grain Bread
White Bread	Pineapple	(e.g. Granary/Multigrain)
French Stick	Papaya	Pitta Bread/Rye Bread
Brown/White Rice	Raisins	Chapatis
Waffles	Sultanas	Sponge Cake
Bagel	Squash	Banana Cake*
Crumpet	Mars Bar*	Apple Muffin*
Morning Coffee	Muesli Bar*	Low-fat Ice Cream
Water Biscuits	Taco Shells*	Milk/Yoghurt
Puffed Crispbreads	Full Fat Ice Cream*	Fish Fingers
Parsnips	Croissant*	Peanuts*
Baked Potatoes	Beetroot	Sausages*
Chips*	New Potatoes	Crisps*/Popcorn
Pumpkin	Pea Soup	Lentil/Tomato Soup
Swede		Chocolate*
Broad Beans		Apple/Apricot/Banana/
Corn Chips*		Cherries/Cantaloupe
Water Melon		Melon/Grapefruit/Grape
		/Kiwi/Mango/Orange/
		Peach/Pear/Plum
		Apple Juice/Orange Juice
		Carrots/Peas/Sweetcorn
		Sweet Potato/Yam
		Baked Beans/Butter
		Beans
		Chick Peas/Haricot
		Beans
		Kidney Beans
		Lentils/Soya Beans

Sometimes despite your best efforts to maintain a healthy diet & weight, people with *Aspergillus* disease struggle to get

good nutrition and lose weight. If this happens supplements may be needed and will be prescribed by your GP or dietician.

Acknowledgements: Grateful thanks are given to: Helen Tate, Dietitian, SRO MSc, for her help in compiling this information. Helen is the infectious diseases dietitian at St George's Hospital, Tooting, London SW17. Her expertise is in HIV and Haematology.

Precautions for handling compost and bark chippings

Composting often results in the growth of large numbers of fungi in the rotting material. One of the most important fungi involved in the composting process is *Aspergillus fumigatus*. *Aspergillus fumigatus* is the main cause of several medical problems varying from causing irritating allergy & asthma right up to and including serious invasive infections with consequent lung damage and severe disability that can be incurable.

There have been two recorded deaths in the UK over the last few years that may have been caused by people accidentally inhaling huge numbers of fungal spores from bags of compost that they opened not knowing the potential health hazards.

We would like to make people more aware of the dangers. Precautions include taking care when opening bags of compost as that seems to be a consistent theme, but also care can be needed when handling any heaps of rotting material. Take care not to inhale the clouds of spores that can be released when opening bags of compost, only open bags outdoors and preferably on a day when enough wind is blowing to prevent the spore clouds building up as you work.

Needless to say people who suffer from asthma & allergies should take more precautions.

If at all in doubt there is information on facemasks that meet the standards required to filter out most of the spores while you are working with rotting material in this booklet – NOTE ordinary dust masks will NOT work.

Gardening is a safe, healthy pastime for most of us and composting is certainly to be encouraged. Let's help keep it safe for everyone!

Many thanks Graham Atherton

National Aspergillosis Centre admin@aspergillus.org.uk

https://aspergillosis.org/facemasks/

Face masks

Aspergillus spores are very, very small - 2-3 microns is a reasonable size estimate for an *Aspergillus* spore. The function of these spores is to be released into the air and to resettle some distance from the original fungal growth and then grow, the purpose being to spread the fungus far and wide. After millions of years of evolution fungal spores have got to be extremely good at this - the spores are very small and float in air at the slightest encouragement from air currents. Consequently the air we all breathe every day contains fungal spores.

Most people have a highly efficient immune system that removes fungal spores from the lungs, so those that are breathed in are quickly destroyed, however some people may develop an allergic reaction and others are vulnerable to infection (e.g. those with an impaired immune system such as after a transplant or during treatment for some types of cancer).

There have been a few rare cases of (apparently) completely healthy people accidentally breathing in huge numbers of spores - the latest was a healthy 40 year old man who opened bags of composted plant material which must have blown clouds of mould into his face . He became very ill within a day or two and died.

Clearly the best way to avoid health problems is to remove the source of the problem - in this case avoid situations where you are exposed to high numbers of spores. Unfortunately that is not always possible - the source might be part of your daily life or your work (e.g. if you are a gardener or agricultural worker).

Alternatives include:

- Adjusting your living or working practices to minimise exposure to mold spores
- Use protective barrier equipment to prevent spores being breathed in e.g. face masks
- Filter all of the air surrounding the vulnerable individual (only viable for quite small enclosed areas e.g. surgical operating theatres and required powerful expensive equipment)

Face masks represent the most cost effective solution if an individual must breathe in air that contains a lot of spores. They are light and relatively cheap while not being too obtrusive to the user.

Which Face Mask to use?

There are a huge range of masks and filtration material available on the market - traditionally aimed at the industrial and medical protection markets but now increasingly available to the domestic user. Fortunately for simplicity the

vast majority are useless at filtering out tiny fungal spores as they are too small to be stopped. A cheap paper mask sold at your local DIY store to prevent dust inhalation is far too coarse to filter out mould spores – consequently we can concentrate on filters that remove particles 2 microns in diameter and those are a little harder to come by.

Any filter that you intend for use to prevent exposure to fungal spores must be graded as a HEPA filter. There are three grades of HEPA filters namely N95, N99 and N100 and the numbers refer to the percent of particles 0.3micron in size that filter is capable of removing from air that passes through it.

An N95 filter will therefore remove 95% of all particles 0.3 micron in size from air that passes through it. Fungal spores are 2-3 microns in size so an N95 filter will remove far more than 95% of fungal spores from the air, though some will still get through. This standard is generally thought to be the best combination of efficiency and cost for the average home user - such as a gardener. Industrial users (e.g. workers remediating mouldy homes or other premises) may be exposed to far more spores and may opt for the more efficient N99 or N100 filters at higher cost.

In the UK and Europe the standards referred to are FFP1 (not appropriate for this purpose), FFP2 and FFP3. FFP2 is equivalent to N95 and FFP3 offers higher protection. Masks generally cost £2-3 each and are intended for single use. More expensive masks are available which can be used more

than once - see 3M for one possible supplier, also Amazon are used by many other suppliers (NB there is a list of suppliers at the end of this article)

These masks must be correctly fitted to work to their full potential so be sure to follow instructions carefully.

Industrial users are often advised to wear a full face mask including eye protection (to prevent eye irritation) and to use an additional filter to remove the chemical gases given off by moulds (VOC's), but this is mainly for people being heavily exposed to clouds of spores day after day.

NOTE: patients that use spectacles have reported that some facemasks are difficult to use for any length of time as they tend to 'steam up'. To avoid this, some models have a special valve that is designed to allow air out of the mask easily when exhaling.

UK

http://www.hse.gov.uk/respiratory-protective-equipment/index.htm

USA

NIOSH-Approved N95 Disposable Particulate Respirators

NIOSH-Approved N99 Disposable Particulate Respirators

NIOSH N95 Certified Masks with FDA Approval

Fitting your facemask

Facemasks for the reduction of *Aspergillus* spores in the air that you breathe

Introduction

This information applies to fitting disposable FFP2 and FFP3 masks. The 3M 9320 mask is used here for demonstration purposes.

Things to consider prior to fitting:

If you wear glasses, you should remove them before fitting as they will interfere with achieving an effective seal.

Facial Hair – If you have a moustache/beard and it goes beyond the border of the mask then an effective seal will not be achieved. A half mask or powered respirator will be required.

Fitting instructions:

1. Open out the mask: lift straps & pull the flaps apart

2. Cup lower flap of mask under chin with one hand and slip straps over your head with the other.

3. Adjust straps so lower strap is below ears and upper strap is over crown of head.

4. Adjust top and bottom of mask for a comfortable fit.

5. Using index and middle fingers of both hands together, mould the nose clip over your nose and smooth onto your cheeks. Do not pinch the clip as this may prevent you getting an effective seal.

6. Check, using a mirror that your mask is on straight and flaps are not folded under. Adjust if necessary.

Additional important Information:

Your facemask should be the first item of Personal Protective Equipment (PPE) that is put on and the last item taken off. This is important because:

1. it will prevent you from being exposed to allergen material on the other PPE you are wearing as you take it off, and

2. it will prevent the inner surface of your mask becoming contaminated if you are going to re-use it.

NB: If you wear a cap or hat your face mask should be put on before the cap or hat.

UK suppliers offline

Patients have successfully sourced FFP2 facemasks from the following suppliers:

Graham's Machinery, Chester - 01244 376 764 (they told me they sell boxes of 10 masks)

SMH Products Ltd, St Helens - 01744 26660 (as well as 3M ones, sell another fold flat FFP3 mask by 'RESPAIR' in a box of 5)

I can also suggest online sources

There are many – search Google or Amazon for ‘ffp2 facemask’

Respiratory Physiotherapy

Provided by the Fungal Infection Trust

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What do physiotherapists do?

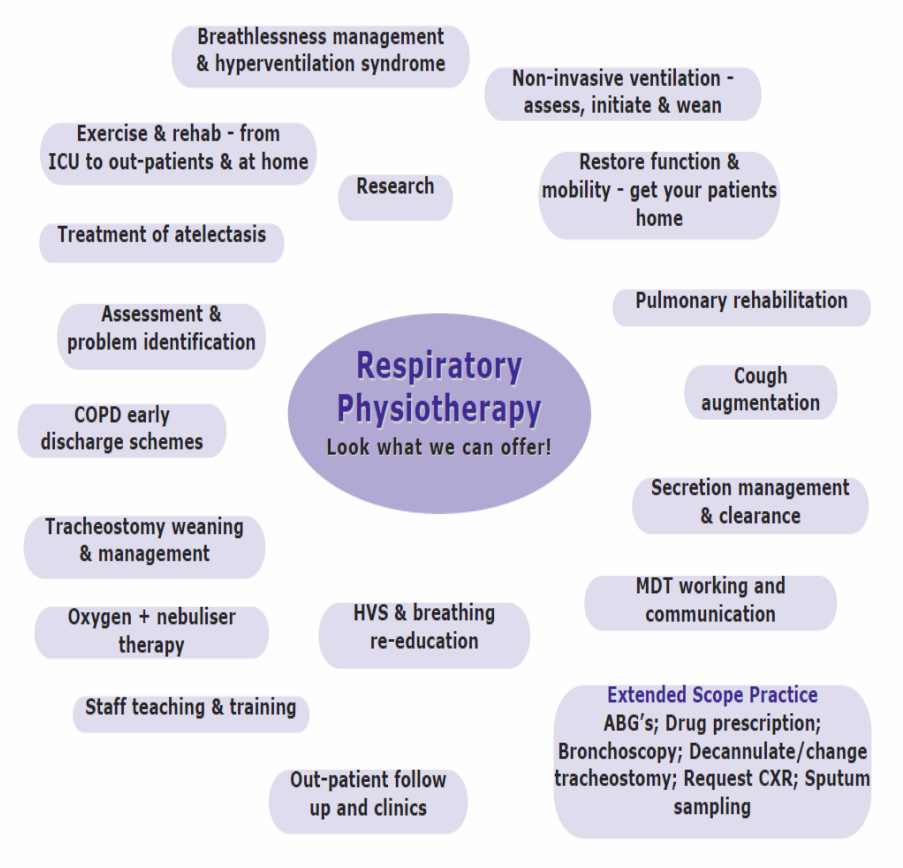
- Physiotherapy helps restore movement and function when someone is affected by injury, illness or disability through movement and exercise, manual therapy, education and advice

- Physiotherapy takes a 'whole person' approach to health and wellbeing, which includes the patient's general lifestyle

- At the core is the patient's involvement in their own care, through education, awareness, empowerment and participation in their treatment

What is respiratory physiotherapy then?

- Frequently Respiratory physiotherapy or "chest physiotherapy" is used to mean using techniques to help clear mucus from the airways. However, there is much more that respiratory physiotherapy can offer:



- Physiotherapy may be helpful in helping patients produce sputum samples. These sputum samples can be extremely important in the management of *Aspergillus*-related diseases.

- Should you wish to access a video detailing one technique that may be useful in helping you cough up

sputum, it can be found online here: https://aspergillosis.org/loosen-and-clear-mucus/

- Simply put, try repeating this sequence a few times:
    - 4 deep breaths
    - 5 long, slow, gentle huffs
    - 3 short fast strong huffs
    - cough

- Exercise is often extremely effective at improving health but often people with lung or heart complaints worry about getting short of breath. A good rule of thumb is that it's ok to be breathless with exercise, but if you get speechless/ unable to talk you may be working too hard.

More Information and Support

The National Aspergillosis Centre runs a website for patients and carers that contains all the information we think you and your family will need. **www.aspergillosis.org**

The Aspergillus website contains a huge amount of reference material that the more expert reader might find useful **www.aspergillus.org.uk**

The patients charity the Aspergillosis Trust advocates and fundraises for aspergillosis patients and carers everywhere **www.aspergillosistrust.org**

Many people find that having a rare disease such as aspergillosis is very isolating and can promote emotional illness too, so it is well worth knowing that there are thousands of people just like you in our active Facebook support groups. We can also answer many of your questions. Aspergillosis Support
www.facebook.com/groups/aspergillussupport

We also run a monthly meeting in the first Friday of each month in the Altounyan Suite next to clinic. Come along at 12:30 for refreshments and chat informally to some fellow patients or to a member of staff, listen to informative talks. Everyone is welcome, finishes at 3pm (and you get a free car parking ticket for the day).

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