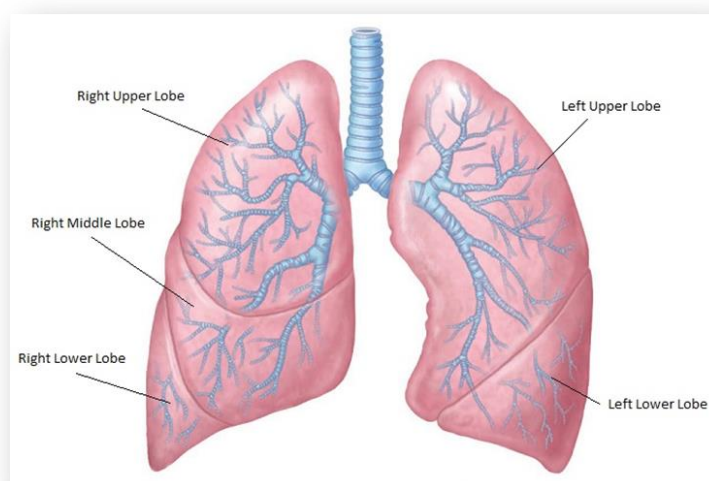


Patient information

Chest clearance techniques for carers

The lungs

Our lungs are important in helping us to get enough oxygen into our bodies to help feed our vital organs (such as our heart and brain) and also to help feed our muscles so that we can move properly.



The lungs are made up of various segments (called lobes) and within these are a vast network of tubes (called airways) which carry our oxygen into the lungs and carbon dioxide out again.

Mucus and phlegm

Our lungs make mucus every day to help protect them against infection and to help the oxygen we inhale to travel easily into the blood stream.

However, some people can produce a lot of thicker mucus, known as phlegm, which can be difficult to clear.

Excess phlegm, and a difficulty in clearing it, can often result in repeated chest infections.

Daily chest clearance will not only help you to breathe more easily, but should help reduce the frequency of contracting a chest infection.

Your physiotherapist will assess your chest and your breathing and will then guide you on the best techniques for your specific needs. They will also advise you on how often they need to be carried out.

This leaflet aims to guide you on the most effective chest clearance methods and prompt you to remember the techniques you have been taught by your physiotherapist.

You should not attempt to carry out any techniques that you have not been taught, as this could be dangerous.

How do you know if someone has phlegm to clear?

- If someone has phlegm in their airways you may notice:
- an audible 'musical' sound when they breathe
- a 'rattling' sound when they breathe or speak
- an increased frequency of coughing
- a 'vibrating feeling' if you place your hand on their chest
- their oxygen levels are lower than normal (for them)
- an increase in agitation

The aims of chest clearance are:

- to help remove phlegm
- to help the person breathe more easily
- to help get oxygen into the body more effectively

- to reduce the occurrence of getting a chest infection

Chest clearance action plan

- 1) Loosen phlegm
- 2) Position the patient to help move the phlegm
- 3) Carry out appropriate techniques shown by your physiotherapist to help move the phlegm
- 4) Remove secretions

Loosening secretions

Phlegm can often be difficult to clear from the lungs because it is thick and sticky and difficult to move through the smaller airways. It is therefore important, before you start any treatment, to try and loosen these secretions.

Steaming

This 'old fashioned' technique is very effective at helping to loosen thick phlegm in the chest and sinuses.

Fill a large bowl with hot water (you can add eucalyptus oil to the water if you wish). Sit with your face about 30cm above the steaming bowl and breathe in the vapours for about 5 minutes. This can be repeated 3 - 4 times per day if necessary.

Alternatively, running a hot shower or the hot taps in the bathroom (with the doors and windows closed) will create excess steam which can be inhaled for 5 - 10 minutes with the same effects.

Mucolytics

Sometimes clearing thick phlegm may require a more regular intervention. Please ask your GP or respiratory nurse about mucolytic medication that can be taken daily to help loosen your phlegm.

Top tip: Sometimes phlegm or mucous becomes very thick and sticky because you are not drinking enough. Try and aim to drink 2 litres of fluid per day (unless you are on a fluid restriction) to help keep your phlegm thinner.

Positioning

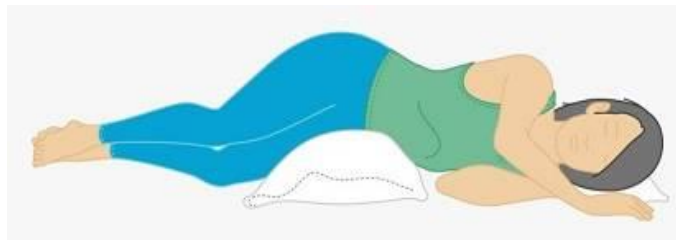
The positioning of a patient is one of the most effortless ways to help to clear phlegm. It is often helpful to use positioning prior to carrying out other hands-on techniques.

Lying the patient in an appropriate position uses gravity to help move (drain) the phlegm into the larger airways so that it can be coughed up or cleared more easily.

You can often feel where the phlegm is situated by placing your hand on the various parts of the chest - if you can feel a vibration under your hand then this is usually where the phlegm is located.

The patient should then be positioned, lying on their side, so that the lung where the phlegm is located is uppermost (towards the ceiling).

For example: If the phlegm is thought to be in the left lung then the person should be positioned so that they are lying on their right side (so that their left lung is uppermost).



It is good to position the patient for 10 - 15 minutes to allow adequate drainage.

Percussion

Percussion is a technique used to move phlegm into the larger airways where it can be removed more easily.

- Position the patient with their affected lung uppermost (see 'positioning')
- Place a folded towel over the patient's chest to provide some cushioning
- Cup your hand as if to hold water, but your palm should be facing downwards



Your hand should maintain this position throughout the technique to prevent you 'slapping' the chest. Your wrist and forearm should also be kept as relaxed as possible.

- Tap (percuss) the chest wall in a rhythmical pattern and with moderate force. Each tap should make a hollow sound. Your physiotherapist will guide you as to the length of time this should be carried out for.



Percussion should not be carried out over the:

- spine
- sternum
- stomach
- mid to lower back

Vibrations

Vibration is another technique that gently shakes the phlegm free in the airways so that it can be more easily removed. It is carried out using a flattened hand, not a cupped hand.

- the patient should be positioned with the affected lung uppermost (see 'positioning')
- a folded towel can be placed over the chest for comfort
- the carer should then place both hands firmly over the area of the chest wall to be treated / cleared
- then, by tensing the muscles in their forearm and at the same time applying a moderate downward pressure to the chest (as the patient breathes out), this should create a fine shaking movement



Your physiotherapist will guide you as to the length of time this should be carried out for.

Reciprocal rolling

For some patients the technique of rolling gently from side to side is another way of shaking their phlegm free in the airways to help clear their chest.

Removing secretions

Often when the carer is carrying out chest clearance techniques, the patient will start to cough, indicating that the phlegm needs to be coughed up.

Coughing

The most natural way for a patient to remove phlegm is to cough it up into a tissue and this also shows that they have an 'effective' cough. This will occur once the phlegm has reached the back of the throat.

If the patient has coughed a couple of times and the phlegm has not been removed, it could mean that the phlegm is not yet ready to come up.

At this point you must allow the patient time to rest as coughing can be very tiring.

Yankauer suction

Some patients who have weak muscles caused by a neurological condition, or who have poor co-ordination, can struggle to remove phlegm from their mouth.

These patients may be prescribed a portable home suction unit by their consultant, GP or respiratory nurse. This equipment can be used by their carer to assist with the removal of the phlegm from the patient's mouth.

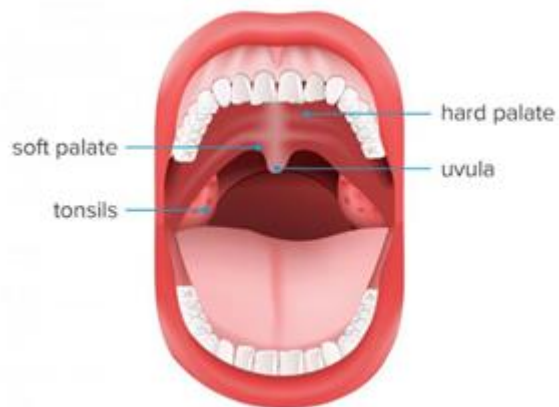
If this is the case then your physiotherapist will show you how to use it: **you should never attempt to use this equipment if you have not been instructed how to do so.**



Yankauer suction catheter with suction tubing attached

Once the patient has coughed and phlegm can be seen in their mouth then the Yankauer catheter can be used to remove it by sucking it out.

When removing phlegm from the mouth the Yankauer catheter should **never** be inserted past the uvula and soft palate (which create an archway at the back of the mouth just behind the back teeth).



Inserting the Yankauer catheter beyond this point can cause:

- damage to the throat
- bleeding
- vomiting, which can then be inhaled into the lungs
- extreme distress to the patient

All suction tubing and catheters should be thoroughly cleaned with warm soapy water and then rinsed and left to air dry after each use to avoid blockages and transfer of infection.

Any damaged tubing or equipment should be reported to the person who prescribed it so that it can be replaced.

My chest physiotherapy prescription

The techniques that my physiotherapist has taught me are:

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-
-
-

My chest Physiotherapy should be carried out times per day for minutes.

If you are unsure, or need any further advice please do not hesitate to contact your physiotherapist.

For further information

Physiotherapy department

West Suffolk NHS Foundation Trust, Hardwick Lane, Bury St. Edmunds, Suffolk, IP33 2QZ

Tel: 01284 713300

If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo)

<https://www.accessable.co.uk>



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