

Patient information

Breath stacking and lung volume recruitment bags

What is breath stacking?

Breath stacking is an exercise that is used to improve the volume of breath that you can take. It is used when the respiratory muscles are weak and taking a deep breath is difficult. This can also help to improve the strength of your cough.

Breath stacking can be achieved using a **Lung volume recruitment bag**. This simple piece of equipment can help you to achieve a deeper breath.

Why is breath stacking used?

- Breath stacking is useful for individuals with conditions that weaken the respiratory muscles and make deep breathing and coughing difficult.
- Breath stacking may help you to clear phlegm off your chest as well as preventing any infections.

Are there any risks?

The risks of completing breath stacking exercises are very low.

Lung volume recruitment (LVR) bag

This is a simple piece of equipment consisting of a flexible plastic bag, a one way valve, a filter and either a mask, mouthpiece or tracheostomy connector.

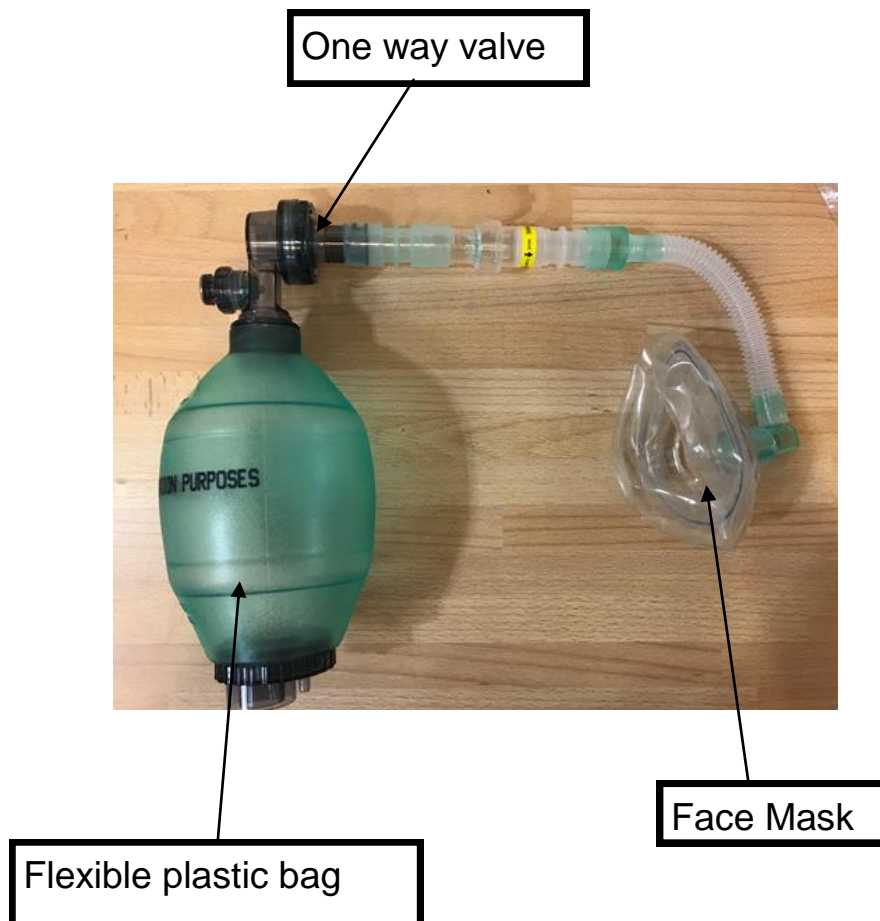
If you are given a LVR bag you will be taught how to use this. If you have a carer and

are unable to use the equipment yourself then your carer will be taught how to use the bag with you.

Ensure that prior to use you have checked all components. If you notice any damage, discontinue use and contact your provider.

Please note that lung volume recruitment bags should not be used for resuscitation purposes.

Bag set-up



Please note that your equipment may differ slightly from the above photo but will contain a flexible plastic bag, face mask and tubing with a one way valve.

How to breath-stack using the LVR bag

1. Breathe out fully.
2. Place the face mask over your mouth and nose, ensuring a good all round seal is achieved.
3. Take a full breath in whilst gently squeezing the bag.

4. Try to hold your breath for a couple of seconds and then try to take another breath whilst squeezing the bag.
5. Repeat step 4 until you feel you have taken as deep a breath as possible. This may take 2 - 5 repetitions.
6. Remove the facemask and try to hold the breath for 3 - 5 seconds.
7. Breathe out. If you feel you have secretions or mucous try to cough instead.
8. Rest for at least 30 seconds between each breath stacking attempt. Then repeat steps 1 - 7 up to 5 times.

This is a guide and your physiotherapist may make alterations to individually tailor your treatment. Your therapist will advise you on how often to complete these exercises.

When should I not use the LVR Bag?

- Within one hour of food or drink: If you are fed by a tube directly into your stomach, the feed should be stopped one hour prior to completing the exercises.
- If you feel acute chest pain or have noticed any blood in your phlegm.
- If you have ever had a pneumothorax (hole in the lung).
- If you have severe Chronic Obstructive Pulmonary Disease (COPD).

LVR bags can cause a pneumothorax (a hole in the lung) if used against medical advice or used incorrectly. Please ensure that you follow the advice given by your physiotherapist.

Discontinue use if you experience any of the following during, or following, treatment:

- Acute chest pain
- Shortness of breath
- Blood in your phlegm

Discontinue treatment and seek urgent medical attention.

Useful contacts

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

Tel: 01284 713300

Suffolk Community Healthcare Care Co-ordination Centre (CCC): Tel 0300 123 2425

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<https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust>



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