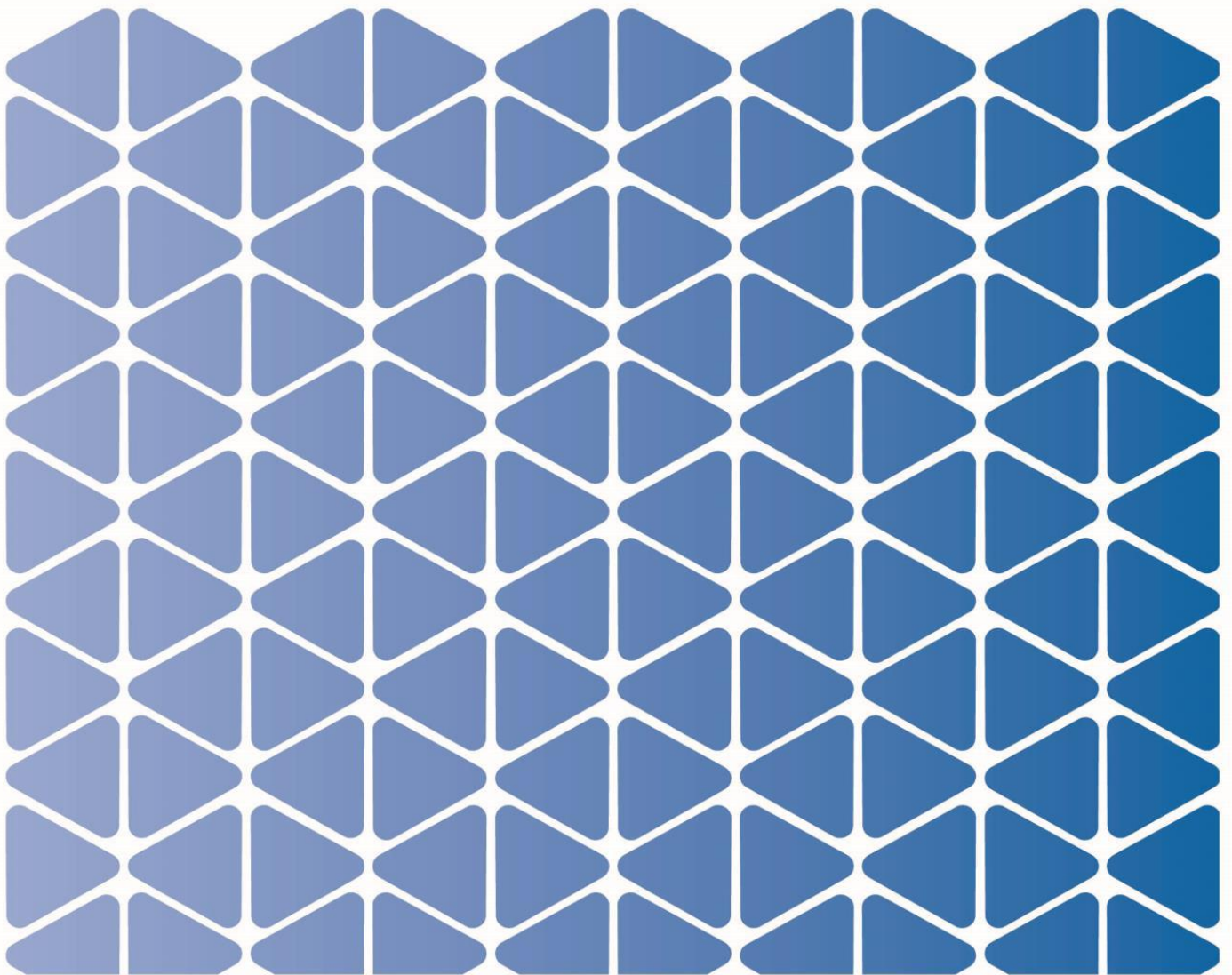




PATIENT INFORMATION

**THE LUNG VOLUME
RECRUITMENT BAG**



What is Lung Volume Recruitment?

Lung volume recruitment (LVR) means increasing the amount of air our lungs can take in (or recruit). In order to take a deep breath in, we usually use our respiratory muscles and diaphragm. However, in some neuromuscular conditions these muscles may be weak and taking a full, deep breath in may become difficult. The Lung Volume recruitment bag is a way of supplementing your own breath in to make it bigger.

If we are not able to take a good breath in, there will be less air to breathe out and our cough will be much weaker and less effective at clearing secretions from our airways.

If we have mucous in our chest that we cannot cough up /spit out, the mucous can become infected and lead to a chest infection or pneumonia.

What are the benefits of using LVR bags?

Using a Lung Volume Recruitment Bag on a regular basis can help to prevent stiffness of the chest and lungs and improve clearance of secretions. It does this by 'breath stacking' – adding one breath on top of another to increase the size of the breath you can take in and therefore improving the strength of your cough to help clear secretions and prevent infection. You may also need medical treatment and antibiotics if you have an infection.

What equipment do I need?

The Lung volume recruitment (LVR) bag is a simple piece of equipment which consists of a flexible plastic bag, a one-way valve, plastic tubing a filter and either a mask, mouthpiece or tracheostomy connector. A nose clip can be used if needed.



When should the LVR bag be used?

You will be advised by your physiotherapist about how to use the technique.

- It is recommended that you do some breath stacking with your LVR bag every day as it is important to 'keep on top' of your mucus clearance and stretch your lungs.
- You can do it between 1-4 times a day, ie first thing in the morning, before meals and at bedtime.
- You may be advised to use the technique more when you are struggling to clear mucus or when you have a chest infection.

When should I not use my LVR Bag?

- You should not do the exercises within 1 hour of food/drink.
- If you are fed by tube directly into your stomach you should stop the feed 1 hour before doing the exercises.
- You should not do your exercises if you feel any acute chest pain or see any blood in your phlegm.
- Do not use the lung volume recruitment bag if you are allergic to latex.
- Do not use the lung volume recruitment bag if you have ever had a pneumothorax, (hole in lung).
- Stop using the lung volume recruitment bag if it makes you feel dizzy

Are there any risks?

There are very few risks with the breath stacking technique when used as directed.

Lung volume recruitment bags can cause a pneumothorax (hole in your lung) if used incorrectly or against medical advice therefore always follow the advice you are given.

If you become suddenly short of breath after using your LVR bag, you should seek medical attention urgently.

How do I use the LVR bag?

It is best to do this technique in an upright position.

The following steps are an example of how to perform breath stacking with a lung Volume recruitment bag but your physiotherapist may make individual modifications for you.

1. Make sure you have all the equipment ready and check it is undamaged and correctly assembled
2. If you are being assisted, make sure you agree a signal for stopping if you feel unwell or have reached full lung volume.
3. Take a deep breath in and hold it
4. Place the mask over your mouth and nose (or the mouth piece in your mouth using a nose clip if you need to). If you are unable to do this, you can be helped by a trained caregiver. It is important that a firm seal is achieved around the mask/mouth piece.
5. You or your caregiver should then gently squeeze the LVR bag to take a second deep breath in **on top of the first** ensuring the firm seal is kept and no air is leaking out.
6. Try to hold your breath for a short moment then try to take another breath, helped by squeezing the bag. This breath again is on top of the previous one.
7. Repeat for 2-5 squeezes of the bag until you feel the lungs are full – you may feel a slight stretch in the chest.
8. Once your lungs are full, remove the mask or take the mouthpiece out of your mouth. If able, try to hold the breath for 3 to 5 seconds, and then breathe out fully.

2. Full face mask or Mouthpiece and nose clip:

- A standard mask is provided that should fit tightly over your mouth and nose. If your arms are weak you may need help to hold the mask in place as you use the bag. It is also possible to use the bag by mouth piece; this will be discussed with you by your physiotherapist.
- It is important to take care of your mask or mouth piece. It is best to wash your mask/mouth piece after every use in warm soapy water.
- Replace the mouthpiece or mask if it looks worn or damaged

3. Filters:

- We would recommend the round filter attached to the bag is changed if it becomes visibly soiled or contains trapped moisture.

Replacement equipment (LVR Kit 2) is available from

Breas Medical, Unit A2, The Bridge Business Centre, Timothy’s Bridge Road, Stratford-Upon-Avon, Warwickshire, CV37 9HW Tel: 01789 293460

www.nippyventilator.com/product-category/accessories/other/

orders@nippyventilator.com

Feeling unwell?

If you are feeling unwell and need medical advice, please contact your own G.P. who will be able to assess and advise you. If you are taken acutely unwell and require admission to your local hospital please take your lung volume recruitment bag and this booklet with you.

IN THE EVENT OF ACUTE DETERIORATION PLEASE CONTACT THE EMERGENCY SERVICES FOR ASSISTANCE

I certify that the below named person, has been instructed and observed in carrying out this procedure safely and effectively.

Signed.....

Name.....

RoleDate.....

I feel confident in using the lung volume recruitment bag as demonstrated.

I will seek further training if I have any concerns about my skills. I know to follow the individual advice given to me by the Physiotherapist and to stop treatment immediately should I/the patient feel sudden pain that does not go away by itself, or become unwell or more breathless. In these events I would seek medical assistance.

Signed.....Patient/Carer

Name.....

Date.....

Contact details

If you have any specific concerns that you feel have not been answered and need explaining, please contact the following:

Physiotherapist.....

Contact details

Other information

The following internet websites contain information that you may find useful.

- www.worcsacute.nhs.uk
Worcestershire Acute Hospitals NHS Trust
- www.patient.co.uk
Information fact sheets on health and disease
- www.rcoa.ac.uk
Information leaflets by the Royal College of Anaesthetists about 'Having an anaesthetic'
- www.nhsdirect.nhs.uk
On-line health encyclopaedia

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PET@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.