What is breath stacking?

Breath stacking is an exercise used to improve the size of breath that you can take. This is useful when muscles are weak and taking a deep breath is difficult. It can help to improve the strength of your cough and can even improve the quality of your voice.

**Lung volume recruitment bags** are a simple piece of equipment which can help you take a bigger breath. They consist of a flexible plastic bag, a one way valve, a filter and either a mask, mouthpiece or tracheostomy connector.

What is breath stacking used for?

There are many different reasons why breath stacking may be needed including:

- muscle problems that make breathing and coughing difficult
- bone problems that make the chest small, and coughing difficult.

What are the benefits of breath stacking?

- It may help you clear mucus from your chest and may help prevent chest infections.
- It helps to keep your rib cage mobile and the muscles that help you breathe and cough will benefit from a full stretch.

Will I be seen by a Doctor, Nurse or Physiotherapist?

This technique of breathing is usually taught by a physiotherapist, but it may be recommended by a doctor or nurse.

You may be taught the technique either whilst in hospital or as an outpatient.

During this time you will have a full explanation about how to breath stack or how to use the lung volume recruitment bag.

You may be reviewed as an outpatient or at a routine appointment at the ventilation clinic.

You will also receive a list of contact numbers should you have any queries.

When is breath stacking used?

You will be advised by your physiotherapist about how to use the technique. It is recommended that you do some breath stacking every day.

You can do it between 1-4 times a day, but you may choose to do it more often if you find it beneficial. You may be advised to use the technique when you are struggling to clear mucus or regularly through the day.

When should I not use it?

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).

Do not use the lung volume recruitment bag if you have severe COPD.

**Are there any risks?**

There are very few risks with the breath stacking technique.

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

**How do I use these techniques?**

**Breath stacking**

It is best to do this technique in an upright position. This is a technique of breathing and does not require any equipment to do.

The following steps are an example of how to perform breath stacking but your physiotherapist may make individual modifications for you.

1. Breathe out fully
2. Take a full breath in
3. Try to hold your breath for a short moment then try to take another breath on top of the previous one.
4. Repeat step 3 until you feel you have taken as deep a breath as you are able. This may take 2-5 repetitions.
5. Try to hold your breath for 3-5 seconds then gently breathe out.
6. Rest between each breath stacking attempt for at least 30 seconds. Then repeat steps 1-5 up to 5 times in any session.
7. If you feel you have secretions or mucus try to produce a strong cough instead of gently letting the air out.

Rest between cycles as you may feel tired or slightly light headed.

**Individual modifications:**

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**Lung volume recruitment bags**

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. Breathe out fully
2. Place the mask over your mouth and nose (or the mouth piece in your mouth using a nose clip if you need to).
3. Take a full breath in whilst gently squeezing the bag
4. Try to hold your breath for a short moment then try to take another breath, again timed with squeezing the bag. This breath is on top of the previous one.
5. Repeat step 4 until you feel you have taken as deep a breath as you are able. This may take 2-5 repetitions.

6. Once your lungs are full, take the mouthpiece out of the mouth, or remove the mask then try to hold the breath for 3 to 5 seconds, and then breathe out gently.

7. Rest between each breath stacking attempt for at least 30 seconds. Then repeat steps 1-6 up to 5 times in any session.

8. If you feel you have secretions or mucus try to produce a strong cough instead of gently letting the air out.

Rest between cycles as you may feel tired or slightly light headed.

**Individual modifications:**

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I am confident in using the lung volume recruitment bags. I know to follow the individual advice given to me by my physiotherapist and would stop treatment immediately should I feel sudden pain that does not go away by its self, or if I become unwell or more breathless. In these events I would seek medical assistance.

Signed……………………

Name……………………

Date……………………

**What equipment will I be given?**

If you are given a lung volume recruitment bag it will include.

- Lung volume recruitment bag
- Mouthpiece and nose clip
- OR full face mask
- Filters.

**Patient interfaces**

- Disposable full face mask
- Flexible Catheter Mount
- Disposable Mouthpiece
- Disposable nasal clip

**Lung volume recruitment bag:**

Check the bag before each use to ensure there is no damage to the bag or any parts are missing. If you have any concerns about the bag do not use it and contact your physiotherapist for a replacement.

The bag should be replaced if damaged or worn, or at 3 monthly intervals. It is your responsibility to contact your physiotherapist to request a replacement. Please see contact details on page 4 of this booklet.
Masks:
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 possible to use the bag by mouthpiece, 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.

Filters:
The filters provided need changing if they become visibly soiled or contain trapped moisture. We would recommend the round filter attached to the bag is changed weekly as a minimum.

Replacement Equipment
To request replacement equipment, e.g. lung volume recruitment bag, masks, mouthpieces or filters, please contact the Physiotherapists or NIV Co-ordinator on the numbers shown below:

We will post replacement equipment out to you, or you can arrange a convenient time to collect any equipment required.

Contact numbers:
If you have any queries, require advice about these techniques or the equipment you may have been given, or if you wish to request replacement equipment, please contact the department on the numbers shown below:

**Physiotherapists**
Karen Ward / Verity Ford / Helen Ashcroft
Tel: 0151 525 5980
BLEEP 3334

**NIV Co-ordinator**
Marie Pearce
Tel: 0151 529 3504
Available: Mon – Fri, 9 am - 2 pm.

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.

Are there any alternatives to breath stacking?
Your physiotherapist may be able to teach you exercises, positions or supported cough techniques which may help you to clear mucus.

There is also a device called a cough assistor which can be used to help people with weak coughs to clear mucus.

Please ask your physiotherapist if you require any more information about these alternatives.

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If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact the Customer Services Department on:

Telephone 0151 529 3287
Textphone 0151 529 2523
Fax 0151 529 2019

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Si vous avez besoin d’une brochure adaptée pour malvoyants

Vous pouvez obtenir, sur demande, ce prospectus imprimé en grands caractères, en Braille, en livre audio (cassette ou disque compact) ou dans une autre langue. Veuillez contacter le service clientèle au:

0151 529 3287

W przypadku, gdy potrzebujesz specjalnego wydania tej broszury

Broszura ta jest dostępna w dużej trzcince, Braille'u, na kasetce do odsłuchu lub na dysku jak również w innych językach na zyczenie. Prosimy o kontakt z Serwisem dla klientów pod numerem:

0151 529 3287

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