

Patient information

POWERbreathe: breathing training device

What is a POWERbreathe?

Your breathing muscles (intercostal muscles, accessory muscles) are a very important role in helping to make your breathing effective and

The most important of these muscles is the diaphragm. This is the muscle found underneath the ribs. It separates the chest cavity from the abdomen and helps with about 85% of the work of your breathing.



The diaphragm is usually a very strong and efficient muscle, but occasionally it can become weak. This may occur:

- after surgery
- because you have an underlying lung condition (such as asthma, COPD, bronchiectasis, pulmonary fibrosis)
- after repeated chest infections
- because of a dysfunctional breathing pattern

The POWERbreathe may be recommended to you because you have a weak diaphragm muscle and can be prescribed by your Consultant, GP, Respiratory Nurse, Practice Nurse, COPD Nurse or Physiotherapist.

The POWERbreathe is a device that can be used to help strengthen your diaphragm by breathing against adjustable levels of resistance.

Once you have been prescribed this equipment you **should not** attempt to use it until you have been taught how to use it properly by a qualified member of staff.

Prior to using the POWERbreathe

Before attempting to use this device you should have been taught some exercises by your physiotherapist to strengthen your diaphragm muscle.

Tummy breathing technique

You can carry this exercise out in either lying, side-lying, sitting or standing - your physiotherapist will guide you as to which position they want you to use.

Firstly make sure that your back is well supported and that your shoulders are relaxed

Place your hand on your tummy, just underneath your ribcage. Your hand should be placed lightly here so that you don't impede the movement of your diaphragm.

You should feel your tummy moving up and down as you take normal sized, relaxed breaths in and out. As you breathe in your tummy should rise and as you breathe out it should fall.

This exercise should be practiced for minutes at a time, times per day to help strengthen your diaphragm.

As your strength improves your physiotherapist will increase the length of time and also the position in which you carry out the exercise. This will help to make the exercise more difficult.

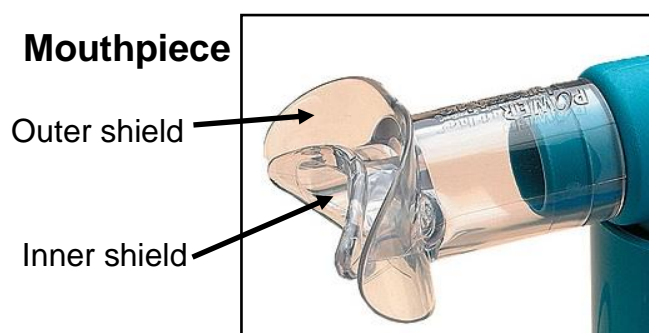
Once you have improved the initial strength of your diaphragm, you may then be introduced to the POWERbreathe to continue your resistance training.

Use of POWERbreathe to strengthen your diaphragm

When starting to use the POWERbreathe you should always begin with it on its lowest resistance.

1. Find somewhere to either lie or sit comfortably with your back supported (as directed by your physiotherapist).
2. Make sure that your shoulders are relaxed.
3. Make sure that the POWERbreathe device is on its **lowest** resistance setting. If you set the resistance too high then you could be training the wrong muscles or could make yourself feel anxious.

4. Holding the handle grip in your hand, place the mouthpiece fully into your mouth so that the outer shield is between your lips and your gums (your teeth resting on the inner shield).



This should give you a good airtight seal and from the outside you should not be able to see any part of the mouthpiece (as pictured above).

5. Keeping the mouthpiece in your mouth, place the nose clip on so that it closes both nostrils. If you find this uncomfortable, or claustrophobic, then you can pinch your nostrils together using your index finger and thumb instead (as if holding your nose).

You may find that the steps 4 and 5 make you a little bit anxious as your breathing may feel a little more difficult than usual, so don't be afraid to remove the mouthpiece and nose clip and keep trying these two steps until you feel more confident.

6. Once you feel happy and comfortable you should practice using the device by taking normal sized, relaxed breaths in and out through the device. These should be done using your tummy breathing method (as indicated on page 2 of this leaflet), as this means you will be training your diaphragm muscle correctly.
7. If however you find that you are breathing more from the top part of your chest, it may be that the resistance is set too high or that you need to do some more tummy breathing exercises without the POWERbreathe first.
8. Otherwise, if you are able to maintain your tummy breathing with the device in your mouth then you should start by practicing with it little and often (as prescribed by your physiotherapist).

Over time, the length of use and resistance can be increased by your physiotherapist as is appropriate.

If at any point you feel unwell or experience any unusual symptoms, when using the POWERbreathe, then please stop using the device immediately and speak to your physiotherapist.

Continuing on with the POWERbreathe

Once you have gained good diaphragmatic strength by progressing your use of the POWERbreathe through lying, sitting and then standing, you may wish to start using it for more strenuous activities such as walking, cycling or even running.

Your physiotherapist will be happy to guide you on this, so please discuss this with them.

Cleaning your POWERbreathe

Your POWERbreathe **is not suitable** to be cleaned by boiling in water and must not be placed in the dishwasher, oven or microwave.

It is important to clean your POWERbreathe regularly to avoid any accumulation of dirt which may affect the working of the device, but also to reduce the chance of bacteria build-up.

A few times a week, soak your entire POWERbreathe unit, including the mouthpiece, in warm water for about 10 minutes. It is often advisable to give the mouthpiece a gentle scrub with a soft toothbrush. Then rinse it under warm, running water. Shake off any excess water and leave it to air dry.

Once a week perform the same procedure as above but use a mild cleansing tablet (denture cleaner) in the bowl of water. Again, after soaking it for 10 minutes, rinse under running water and allow to air dry.

Useful contacts

For Pulmonary Rehabilitation:

Suffolk Community Healthcare Care Co-ordination Centre (CCC)

Tel: 0300 123 2425

For Physiotherapy:

Physiotherapy Department

West Suffolk NHS Foundation Trust

Hardwick Lane, Bury St. Edmunds, Suffolk, IP33 2QZ

Tel: 01284 713300

West Suffolk NHS Foundation Trust is actively involved in clinical research. Your doctor, clinical team or the research and development department may contact you regarding specific clinical research studies that you might be interested in participating in. If you do not wish to be contacted for these purposes, please email info.gov@wsh.nsh.uk. This will in no way affect the care or treatment you receive.

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



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