

Patient Information

Therapy

Incentive Spirometer

Introduction

Taking deep breaths is important for many reasons.

People with a lung problem can produce more sputum than usual. It is important to do airway clearance exercises to remove sputum from your lungs.

Taking a deep breath allows air to flow behind sputum and move it up the airways, where it can then be removed by coughing. This will prevent/ reduce the chances of a chest infection. Even if your lung problem is not producing sputum you may do in the future.

People with a lung problem may lack expansion and volume, and/ or have partial or complete areas of collapse. It is important to do breathing exercises to get air to the bottom of the lungs and re-expand lung tissue again.

People, who have had injuries, surgeries, are in a lot of pain, or those with conditions affecting the lungs, may struggle to take deep breaths.

In these instances, your Physiotherapist may advise you to use an Incentive Spirometer.

Using your Incentive Spirometer

An Incentive Spirometer is a device that supports you to take a long, slow deep breath. It enables you to measure how deep your breath is and provides a visual cue that the desired lung volume and performance has been achieved. The incentive spirometer comes in two parts: the main body and detachable mouthpiece. The main body has two chambers; the first contains a yellow ball and three faces in the following order: $\mathfrak{S} \mathfrak{S} \mathfrak{S}$, which indicate the speed of your breath. The second contains a white level which shows you how deep your breath is.

Before starting to use your Incentive Spirometer ensure your pain is well managed, otherwise it will not work as well as it could. Pain is a big reason why people feel unable to take deep breaths. You need to make sure you are taking pain relief as required. If you are still in pain, then tell a staff member. If you have an incision or injury, you may find supporting it with a rolled towel when coughing helpful.

Airway clearance using an incentive spirometer consists of cycles of breathing through the mouthpiece device, along with coughing. It is completed in the following way:

- Sit upright in bed or preferably in the chair with your back supported. Your Physiotherapist may advise you to lie on your side; this depends on the best position for secretion clearance and/or lung volume.
- Keep your shoulders, chest and arms relaxed.
- Ensure the spirometer is held upright and level; not tipped too far one way or the other. Make sure the mouthpiece is correctly attached to the main body using the blue tubing.
- Breathe all the way out.
- Place the mouthpiece in your mouth and seal your lips tightly around it to prevent air leak.
- Breathe in through the mouthpiece as steadily and deeply as possible. Notice the yellow ball and white level will each rise towards the top of their chambers.
- Aim to fill your lungs as much as possible, allowing your chest to expand and stomach to rise. Aim to keep the yellow ball in the middle on the smiley face ^(C).

- Make a note of where the white level rises to on the scale. Your Physiotherapist will mark this with the yellow indictor as a best effort target. Use this as a goal to work towards with each deep breath.
- Release the mouthpiece and breathe out gently through either your nose or mouth. The yellow ball and white level will fall to the starting position again.
- Do 6 breaths unless advised otherwise by your Physiotherapist. The breaths should be repeated consecutively.
- Cough strongly from your stomach not your throat.
- You should avoid long bouts of coughing as this can be very tiring and may make you feel breathless or make your throat or chest sore or tight.
- If you cough up some sputum, spit into a clean tissue and dispose of the tissue into a domestic waste bin.
- Your Physiotherapist will advise you how often to do and when you can stop the exercise.
- The mouthpiece can be cleaned in hot/ soapy water and left to air dry, avoid getting the main body wet.
- If the device looks dirty, tell your Physiotherapist so that it can be replaced.

If you have any concerns or queries regarding your exercise, please ask a member of staff for device on **02476 966013**.

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