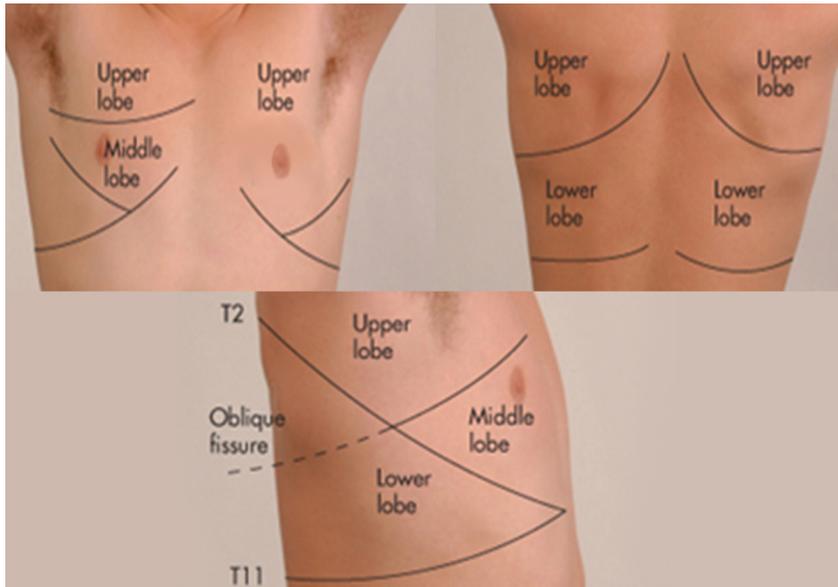


Lung Volume Recruitment

Factsheet

Anatomy



Lung dynamics – terms

Total lung capacity

Total amount of air after maximum inspiration

Tidal volume

Volume of gas inhaled and exhaled with each breath

Vital capacity

Maximum volume that can be exhaled after maximum inspiration

Residual Volume

Amount of gas left after maximum exhalation

Functional residual capacity

Amount of gas left in the lungs at the end of expiration

What is a Lung Volume Recruitment (LVR) bag?

The LVR bag is a stiff 'balloon' that allows air to be pushed into your lungs via a one-way valve.

What does it do?

The LVR bag allows you to 'stack up' several small breaths, one on top of the other without breathing out. This allows you to fill your lungs more than you could with a single breath.

Taking a big breath can help you to produce a cough which is important to clear secretions (phlegm) from your lungs. Routine use of the LVR bag can help to reduce the risk of chest infections.

Why use an LVR bag

The LVR bag is useful for people who find it difficult to take a deep breath and to cough due to changes to their respiratory muscles or lung tissue.

People who have changes to their glottis (vocal cords) which make it difficult to hold their breath or cough, may also find it helpful.



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When not to use LVR bag

Do not use if the individual is coughing up blood stained secretions or is feeling very short of breath, do not use the LVR bag and seek medical advice.

Do not use the LVR bag for two hours after eating, the pressure on your stomach may make you feel nauseous when taking a large breath.

How to use an LVR bag

- Sit in an upright position
- Before starting, if the bag is being squeezed for you by somebody else, agree on a signal that you will give that indicates when your lungs are full (and to stop squeezing air in), i.e. a hand wave, raise eyebrows etc
- Breathe out fully
- Place your lips tightly around the mouthpiece (making sure to use the nose clip). If using the facemask, you won't need a nose clip, however do cover your nose and mouth with the facemask making a tight seal around them so that there is no air leaking out
- Place your lips tightly around the mouthpiece (making sure to use the nose clip). If using the facemask, you won't need a nose clip, however do cover your nose and mouth with the facemask making a tight seal around them so that there is no air leaking out
- Co-ordinate your breaths with squeezing the bag so that every time you breathe in you are gently squeezing the bag to help push more air into your lungs. The squeezing should be fast and short/small although gentle
- You don't have to squeeze the whole bag at once, just a little in each breath
- Repeat these breaths in alongside the bag squeezes until lungs are full
- Hold your breath briefly, (If you find this difficult the LVR bag will keep the air in for you, just maintain the seal round the facemask or mouthpiece)
- Remove the mask and breathe out
- Repeat the above process up to five times
- As you breathe out on the last breath, cough strongly, if required your cough can be improved with physical assistance
- This whole process is known as one 'cycle', take a brief rest then repeat the cycle two or three times
- How often to use a LVR bag
- Individuals should complete at least two cycles of up to five breaths every day
- However, if more cycles are needed to help clear their chest then they might benefit from using it more often or completing more cycles
- It can be tiring, so make sure the individual takes adequate rests between cycles

Cleaning an LVR bag

The facemask, mouthpiece and tubing can be detached and washed in warm soapy water then left to air dry.

