Short Communication

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Help people breathe easy

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Introduction

There are quite a number of maneuvers' that help people breathe easy. Pulmonary rehabilitation is an important part of Rt role. Being an RT it is your duties to work in that domain and give them relief. Some of the exercises that I can recall right now are as follows.

Pursed lip breathing

A technique that is mostly used in COPD patients, as they use accessory muscles efforts. This will improve SaO_2 and reduce extra muscle efforts. By implying this technique the chest wall muscles are recruited and during inspiration no extra pressure is generated when diaphragm is flattened as a result it gets less fatigued, dynamic hyperinflation is reduced, tidal volume is improved which leads to less shortness of breath.[1,2]

i. Relax your neck and shoulder muscles.

ii. Breathe in for 2seconds through your nose, keeping your mouth closed.

iii. Breathe out for 4seconds through pursed lips. If this is too long for you, simply breathe out twice as long as you breathe in.[3]

Diaphragmatic breathing

A technique that strengthens your diaphragm in patients whose diaphragm is compromised such as paralysis, trauma, COPD and neuromuscular diseases. As well in post-op patients and asthmatic patients also.[4] This technique improves tidal volume and reduce respiratory rate which in turn improves minute ventilation.[5]

i. Lie on your back with knees bent. You can put a pillow under your knees for support.

ii. Place one hand on your belly below your rib cage. Place the other hand on your chest.

iii. Inhale deeply through your nose for a count of three. Your belly and lower ribs should rise, but your chest should remain still.

iv. Tighten your stomach muscles and exhale for a count of six through slightly puckered lips.[6]

Incentive Spiro meter

It is a type of lung expansion therapy that is often used in post-op patients, pneumonia, lobar collapse, thoraco abdominal surgery, cardiopulmonary surgeries, lobar resection, Bronchiectasis. It aids in reducing pulmonary complications and in expansion of collapsed lungs.[7,8] Steps for using incentive spirometer are

i. Sit in upright position and hold the device incentive spirometer in your hand.

ii. Expire normally and then place the ISP mouthpiece tightly around your mouth.

iii. Inspire deeply and to the fullest. Try to raise three balls and up top for 5 seconds or more. When u will inspire to the fullest it will increase your lung volume and increase gaseous exchange as well as diffusion as alveoli will also expand.[9]

iv. Try the maneuver again and again but under supervision.

v. Same therapy can be used in children but in order to make it interesting and game like let them inflate a balloon or blow bubbles it will fun be plus an exercise.

Huffing and Coughing

Nature has given us a gift of cough to remove mucus and foreign bodies out of the lungs. Some people due to some disorders cannot cough properly leading to diseases like pneumonia, bronchitis, Bronchiectasis, COPD,[10] cystic fibrosis and certain neuromuscular diseases etc. Basically huffing is an immitation of coughing or calls it fake cough. In it u doesn't cough but try to cough by saying "huff". It is a maneuver that needs supervision and your respiratory therapist will be happy to do it.

i. Inhale deeply and to the maximum hold your breath and count in your head 1,2,3.

ii. Then forcefully exhale letting air quickly out by saying huff.

iii. Do that 2,3 times and u will start coughing or the least u will let out some mucus.

PEP Therapy

Positive expiratory pressure help expand your alveoli which in turn improves gaseous exchange as well as assist in removing secretions because when alveoli expand air enters in the alveoli making less room for secretions and they came out of the little sacs clearing the smaller airway improving V/Q like in cystic fibrosis patients.[11] When they reach your larger airways cough and Hough the secretions out. Your Respiratory therapist will be there to help you carry out the technique correctly.

i. Normally inhale through the PEP device that has a valve.

ii. When you will exhale through the valve it will have resistance and in order to work against that resistance your lungs will use some force which will strengthen your respiratory muscles also. C. Blow in and out 10times and then huff cough this will help in expulsion of mucus from larger airways too.[12,13]

Bubble PEP therapy

It is also a type of pep therapy which is inexpensive and easy to

practice. Fill half of the bottle with water and place a straw in it,

i. Sit in upright position.

ii. Inhale deeply through nose.

iii. Hold straw tightly in your mouth and exhale through your mouth.

iv. As a result bubbles will be made in water.

Deep breathing

Deep breathing itself help you in healing by increasing gaseous exchange which improves ventilation and perfusion which leads to better circulation and helps in healing. After surgery patients feel sore and found deep big breaths difficult. If you do not take big breath it will reduce air entry and expulsion of secretions or mucus. Deep breathing moves air down to the bottom areas of the lungs Opens air passages and moves mucous out (coughing is also easier) Helps the blood and oxygen supply to your lungs, boosting circulation.

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Conflict of interest

The author declares no conflict of interest.

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