

Pursed lip breathing

Pursed lip breathing is a breathing strategy which allows to make breaths more effective and decrease the rate of breathing.

Indications

- Chronic obstructive pulmonary disease
- Heart failure
- Asthma
- Obesity
- Lung cancer
- Generalized anxiety disorder

Contraindications

- Flail chest
- Recent spinal injury
- Increased intracranial pressure
- Recent head injury

Patient position: Upright position such as sitting or standing.

Therapist position: Standing beside the patient.

Procedure

- Relax the shoulder and neck muscles.
- To avoid the use of accessory muscles of respiration and encourage the movement of diaphragm.
- With the mouth closed, slowly breathe in through the nose for at least 2 seconds.

- Pucker the lips like blowing out candles.

Slowly breathe out all the air from lungs through the lips pursed like gently flickering the flame of a candle for at least 4 seconds.

Perform pursed lip breathing until breath becomes normal.

Mechanism

- Pursed lip breathing involves inspiration through nose and expiration through mouth at a slow controlled flow.
- In COPD patients, the airways collapse during expiration resulting in trapping of air.
- Expiratory phase of pursed lip breathing is prolonged which creates back pressure producing a small amount of positive end-expiratory pressure.
- This PEEP helps to keep airway open during exhalation and preventing hypercapnia.

Therapeutic benefits

- Improves breathing pattern.
- Releases trapped air in the lungs.
- Reduces the work of breathing.
- Improves oxygen exchange.
- Promotes general relaxation.