**Dyspnea**

Breathing that is accompanied by struggle and shortness of breath.

It is a common symptom in many cardiac and pulmonary diseases, especially when lung capacity decreases or airway resistance increases.

The right ventricle is affected in lung disease because blood must be pumped from the right heart despite high resistance to the lungs.

Shortness of breath can sometimes be caused by neurological or neuromuscular diseases, such as myasthenia gravis, Guillain-Barré syndrome, or muscular dystrophy.

Shortness of breath can also occur after exercise in people without underlying diseases.

**Clinical Importance:**

In general, acute pulmonary disease causes more severe dyspnea than chronic pulmonary disease. Sudden shortness of breath in a person who has been healthy may indicate pneumothorax, acute airway obstruction, or ARDS.

In a sick person or after surgery, sudden shortness of breath can be due to a pulmonary embolism.

Orthopnea (inability to breathe except in a sitting position) may occur in cardiac patients and patients with chronic obstructive pulmonary disease (COPD).

Shortness of breath with wheezing on exhalation occurs in COPD patients.

Vocal breathing may be the result of an airway obstruction or an obstruction in the main bronchi by a tumor or foreign body.

Whistling in the inhale and exhale usually indicates asthma if there is no possible cardiac failure.

**Reducing measures:** The cause of shortness of breath should be identified and corrected. Sometimes the change of patient position from lying to sitting (fowler position) or when the head is placed high can improve the symptom, and oxygen should be prescribed in cases of severe shortness of breath.

**Amount and method of oxygen therapy:**

The goal of oxygen therapy is to eliminate hypoxia.

Equipment used for oxygen therapy:

**Bipolar cannula:** This device delivers 1-6 liters of oxygen per minute to the patient. One of the advantages of this device is that the patient is comfortable with it and does not feel trapped. It is a good tool for correcting mild hypoxia.

**Simple mask:** it provides a flow of 6-10 liters of oxygen. The patient feels trapped and cannot speak, but provides more oxygen to the patient.
Venture Mask: Designed to mix room air with a steady stream of oxygen and it is suitable for COPD patients.

Shortness of breath can be a dangerous sign.

People often do not consider shortness of breath a serious symptom, but especially in those who are at risk for cardiac disease and people who do not have pulmonary disease, shortness of breath may be the only sign of serious cardiovascular disease.

Treatment of shortness of breath

Treatment of shortness of breath depends on the individual's underlying disease and is basically trying to use the existing capacity of the lungs with exercise, bronchodilators or surgery.

Bronchodilators such as salbutamol or atrovent may be used to treat shortness of breath.

Salbutamol is one of the bronchodilators that is effective in COPD and shortness of breath. This drug is used in the form of spray and inhaled ampoule. Salbutamol ampoules should be used for nebulization and incense. The onset of its effect is 5-15 minutes.

Atrovent: It is a bronchodilator and is used as a spray and nebulizer ampoule. In the treatment of shortness of breath, a combination of the two ampoules may be used to nebulize.

If you have any questions or ambiguities, call the following number:

023-34222234, Motamedi Hospita