

MODULE PARENTS AND EXPERTS

ACTIVITY 4. BREATHING EXERCISES INFOGRAPHICS

- **TIME:** Periodically.
- **RESOURCES:** Breathing exercises infographics.
- **LANGUAGES:** ENG / SPA.

DESCRIPTION:

Diseases that involve muscular dystrophy and atrophy often cause difficulty breathing (dyspnea) due to weakening of the muscles in charge of ventilation. Thus, people affected by these diseases have to do breathing exercises to slow down the degenerative and progressive atrophy of those muscles. These exercises are easy to practise at home with the aid of a visual guide with infographics, which is the OER proposed.

OBJECTIVES:

Provide a visual guide of basic breathing exercises that can be easily understood by families and children with muscular dystrophies. Therefore, they can practise the exercises at home, maintaining their quality of life.

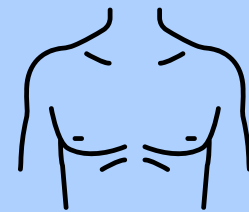
LESSON OVERVIEW:

Infographics with short explanation that can serve as a guide of how to perform breathing exercise for persons affected by muscle dystrophies.

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Chest Expansion Exercises:



- **Diaphragmatic Breathing:** Lying on your back with knees bent, place a hand on your abdomen and take deep breaths, ensuring that the abdomen rises while inhaling and sinks while exhaling.
- **Costal Breathing:** Sitting or standing, place your hands on the sides of your chest and take deep breaths, trying to expand the sides of your chest during inhalation.
- **Clavicular Breathing:** Sitting or standing, place your hands on the upper chest and take deep breaths, feeling the shoulders rise during inhalation.

Assisted Cough Techniques:



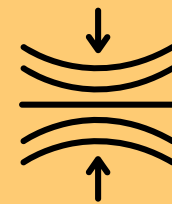
- **Directed Cough Technique:** The physiotherapist provides manual support and assists the patient in performing an effective cough by applying pressure on the abdomen or chest during expiration to facilitate the expulsion of secretions.
- **Incentive Spirometry:** An incentive spirometer is used to train and strengthen respiratory muscles, as well as to improve coughing ability and secretion clearance.

Respiratory Muscle Strengthening Exercises:



- **Resistive Inspiratory Exercises:** Using a respiratory training device with adjustable resistance, deep inspirations are performed against resistance to strengthen the inspiratory muscles.
- **Resistive Expiratory Exercises:** Respiratory training devices that provide resistance during expiration are used to strengthen the expiratory muscles.

Flexibility and Mobility Exercises:



- **Respiratory Muscle Stretching:** Gentle and controlled stretches of the chest, shoulder, and neck muscles are performed to improve mobility and flexibility of the thoracic cage.
- **Costal Mobilization Exercises:** Sitting or standing, gentle and controlled movements of the arms and trunk are performed to mobilize the ribs and facilitate chest expansion during breathing.