

COURSE DESCRIPTION

This course, developed by Mary Massery, will challenge the practitioner to make a paradigm shift: connecting breathing mechanics and postural control with management of trunk pressures. Using Dr. Massery's model of postural control (Soda Pop Can Model), the speaker will link breathing mechanics with motor and physiologic behaviors (a multi-system perspective). The speaker will present novel research demonstrating the role of vocal folds as postural stabilizers, extending the concept of "core stability" from the vocal folds on the top of the trunk to the pelvic floor on the bottom. Numerous interventions will be presented that use positioning and ventilatory strategies to optimize motor performance. Neuromotor breathing retraining techniques and manual assistive cough techniques will be the focus of treatment labs. Multiple patient cases will be presented throughout the course. The emphasis of the course will be on developing practical, quick clinical solutions for pediatric and adult patients in all practice settings.

COURSE OBJECTIVES

At the conclusion of Day 1, participants should be able to:

1. Describe how trunk pressures link breathing and postural control using the Soda Pop Can Model.
2. Describe the multiple, simultaneous roles of the diaphragm as related to breathing, postural control, gastroesophageal reflux, constipation, and venous return.
3. Demonstrate the role of the vocal folds in normal postural stability responses (balance) and make the case for using speaking valves for patients with tracheostomies.
4. Contrast normal infant chest wall development to those with impaired breathing mechanics.
5. Position patients for optimal physiological and biomechanical support of breathing with simple equipment (towels, pillows, etc.).
6. Use a ventilatory strategy algorithm presented in class to optimally match breathing with movements from bed mobility to athletic endeavors.

At the conclusion of Days 2- 3, participants should be able to:

7. Present a multi-system (physical and physiologic) evaluation of motor impairments.
8. Identify the variations of "normal" breathing patterns and discuss the efficiencies/inefficiencies for individual patient conditions.
9. Evaluate need for, and demonstrate, appropriate neuromotor retraining techniques for patients with ineffective breathing/postural control strategies (health or participation deficits).
10. Participate in a live patient demonstration (if a patient is available) and suggest possible evaluation and treatment ideas based on the course material.
11. Design a targeted airway clearance program using the principles of mobilization, expectoration and oral management.
12. Demonstrate airway clearance techniques, with an emphasis on manual assistive cough techniques, and apply an airway clearance algorithm to specific patient conditions.
13. Identify thoracic cage/spine restrictions as they pertain to breathing mechanics and postural control (a very brief introduction musculoskeletal issues).
14. Evaluate need for, and demonstrate, neuromotor retraining techniques to improve breath support for voicing and postural control (eccentrics).
15. Suggest means for incorporating the course material into therapy activities in your clinical setting immediately.