

# If You Can't Breathe, You Can't Function:

## Integrating Cardiopulmonary and Postural Control Strategies in the Pediatric and Adult Populations

Nechama Karmen, PT, MS, PCS

### Faculty

Nechama Karman, received her MSPT from Columbia University in 1994, her Advanced MS in orthopedic PT from Touro College in 1998, and she has completed all coursework toward a PhD in Health Sciences at Seton Hall University. She has held academic appointments at Hunter College and NYIT. Nechama is chief clinical educator at Mobility Research, providing pediatric and adult trainings, introductory and advanced seminars, webinars, and clinical support for LiteGait in the USA and internationally. She is a primary instructor in LiteGait's "train the trainer" program. Nechama owns a private practice ("A Step Beyond Physical Therapy") in NYC, where she treats patients with complex neurological conditions and/or complex pelvic conditions.

Nechama had served as a teaching assistant for each of Mary Massery's courses for over a decade before starting a 2-year faculty apprenticeship in 2014. She became Mary's first certified faculty member in June of 2016! One of Nechama's proudest "Mary Massery" moments occurred when she treated a man suffering from prostatectomy-related incontinence using Mary's approach. She taught him to transfer without incontinence for the first time in 9 months - all in under 15 minutes! She is passionate about helping other therapists learn these important concepts.

*Disclosures for Nechama Karman:*

*Financial: Nechama Karman receives a speaking fee from Education Resources.*

*Non-Financial: Nechama Karman has no non-financial relationships to declare.*

### About this Course

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.

### Objectives (Day 1)

- ① Describe how trunk pressures link breathing and postural control using the Soda Pop Can Model.
- ① Describe the multiple, simultaneous roles of the diaphragm as related to breathing, postural control, gastroesophageal reflux, constipation, and venous return.
- ① 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.
- ① Contrast normal infant chest wall development to those with impaired breathing mechanics.
- ① Position patients for optimal physiological and biomechanical support of breathing with simple equipment (towels, pillows, etc.).
- ① Use a ventilatory strategy algorithm presented in class to optimally match breathing with movements from bed mobility to athletic endeavors.

## Objectives (Day 2-3)

- ④ Perform a multi-system (physical and physiologic) evaluation of motor impairments.
- ④ Identify the variations of “normal” breathing patterns and discuss the efficiencies/inefficiencies for individual patient conditions.
- ④ Evaluate need for, and demonstrate, appropriate neuromotor retraining techniques for patients with ineffective breathing/postural control strategies (health or participation deficits).
- ④ Participate in a live patient demonstration (if a patient is available) and suggest possible evaluation and treatment ideas based on the course material.
- ④ Design a targeted airway clearance program using the principles of mobilization, expectoration and oral management.
- ④ Demonstrate airway clearance techniques, with an emphasis on manual assistive cough techniques, and apply an airway clearance algorithm to specific patient conditions.
- ④ Identify thoracic cage/spine restrictions as they pertain to breathing mechanics and postural control (a very brief introduction musculoskeletal issues).
- ④ Evaluate need for, and demonstrate, neuromotor retraining techniques to improve breath support for voicing and postural control (eccentrics)
- ④ Suggest means for incorporating the course material into therapy activities in your clinical setting immediately.

## Schedule – Day 1

- 8:00-8:30 Registration/Continental Breakfast
- 8:30-10:30 Overview of course topics  
Breathing and posture:  
Part 1 – Pressure control (Soda pop model)
- 10:30-10:45 Break
- 10:45-12:00 Breathing and posture: Part 2 – The diaphragm
- 12:00-1:00 Lunch (on your own)
- 1:00-2:15 Breathing and posture: Part 3 - The vocal folds
- 2:15-2:25 Break
- 2:25-3:25 Mini-lab: Positioning strategies:  
  
What can you do in 90 Seconds or less that has a profound and lasting effect?
- 3:25-3:30 Break
- 3:30-4:15 Normal and abnormal chest wall development and function
- 4:15 -5:30 Mini-lab: Ventilatory or movement strategies: Integrating neuromuscular, musculoskeletal, respiratory and sensory systems

## Audience

Designed for PTs, PTAs, OTs, OTAs and SLP's

## Schedule – Day 2

- 8:00-8:30** Registration/Continental Breakfast
- 8:30-10:15** Review, synthesis and Q&A  
**Demonstration:** Chest assessment:  
Focus on musculoskeletal alignment and breathing patterns
- 10:15-10:30** Break
- 10:30-12:00** **Lab:** Assessing breathing patterns and postural implications
- 12:00-1:00** Lunch (on your own)
- 1:00 -1:45** Airway Clearance: From Sherlock to solution
- 1:45-2:45** **Lab:** Facilitating efficient breathing patterns and endurance training:  
Neuromotor techniques for diaphragm, chest and other breathing patterns
- 2:45-3:00** Break
- 3:00-4:30** **Lab:** Facilitating breathing patterns (continued)
- 4:45-5:30** **Patient demonstration** (if possible)

## Amended Schedule

### December NC Schedule Only

DAY 1 December 6: 9:30-6:30 - Registration 9am

DAY 2 December 7: 8:30-5:30 - Registration 8am

DAY 3 December 8: 8:30-3:00 - Registration 8am

"Awesome instructor who demonstrates passion for this topic and presented easily implemented, real world treatment ideas with evidenced based research!"

## Schedule – Day 3

- 8:00-8:30** Continental Breakfast
- 8:30-10:30** Review, synthesis and Q&A  
Differential diagnosis (patient demo):  
"Find the Problem"
- 10:30-10:45** Break
- 10:45-12:00** **Lab:** Airway clearance: Focus on manual assistive cough techniques
- 12:00-12:45** Lunch (on your own)
- 12:45-1:15** Brief introduction to rib cage and trunk musculoskeletal restrictions associated with breathing difficulties – Quick Screening!
- 1:15-2:30** **Lab:** Enhancing breath support for phonation and postural control
- 2:30-3:00** Group problem solving: Putting it

## Course Requirements

**Required attire for labs:** ladies-tank tops, sports bras, etc. Everyone - loose comfortable pants such as yoga pants, sweat pants, etc. Hair clips or pony tail bands are needed for long hair in labs.

Participants not wearing lab clothes are invited to come and observe.

Day 1 participants need one bath towel.

**Day 2 & 3** participants need one each: beach and bath towel and one pillow.

Please fee free to bring a yoga mat.

Participants are encouraged to bring their favorite anatomy book to help visualize the presentations.

A variety of pre-readings are available. See Mary's publications on her website: [www.MasseryPT.com/publications](http://www.MasseryPT.com/publications)

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## Credits

This course meets the criteria for 7.5 contact hours for day one (.75 CEUs). 13 contact hours (1.3 CEUs) for days two-three. Application has been made to the **NJ** Board of Physical Therapy Examiners. The **PA** and **IN** State Boards of Physical Therapy recognize other state's approvals. This continuing competence activity has been approved by the **NC** Physical Therapy Association. Approved provider by the **KY** Physical Therapy Association for 7.5 contact hours for day one and 13 contact hours for days two and three.

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Approved provider of continuing education by the American Occupational Therapy Association #3043, for 7.5 contact hours for Day One and 13 contact hours for Days Two and Three - Intermediate Level Occupational Therapy Process: assessment, intervention. The assignment of AOTA CEUs does not imply endorsement of specific course content, products or clinical procedures by AOTA.

NBCOT professional development provider- 7.5 PDUs for day one and 13 PDUs for day two and three.



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This course is offered for up to 2.05 ASHA CEUs for (Intermediate level, Professional area).

Please contact us with any special needs requests:  
info@educationresourcesinc.com or 508-359-6533

## Locations and Dates - 2019

<b>June 21-23</b>	Indianapolis, IN	Methodist Hospital
<b>September 13-15</b>	West Orange, NJ	Kessler Institute for Rehabilitation
<b>December 6-8</b>	Raleigh, NC	Wake Med Health and Hospitals



**\$695 fee for Days 1-3; \$265 fee for Day 1 only. Earlybird \$625 (see website for online codes and dates available)**

Deadline for registration is 3 weeks prior to course. Registration will be accepted after deadline on a space available basis. Cancellation accepted up until 2 weeks before course, minus an administration fee of \$75. NO REFUNDS WITHIN 2 WEEKS OF COURSE. Please make check payable and return to: Education Resources, Inc. 266 Main St., Suite 12 • Medfield, MA 02052 508-359-6533 or 800-487-6530 (outside MA) FAX 508-359-2959 • www.educationresourcesinc.com

Limited enrollment. We encourage you to register online!

**If You Can't Breathe You Can't Function**

June/IN  Sept/NJ  Dec/NC

Days 1-3 \$695  Day 1 only \$265  Days 1-3 \$625 Early Bird (Must register 6 weeks before course date )

**Course Registration Form**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Needed in the event of an emergency scheduling change

Email: \_\_\_\_\_

Please clearly print your email address for course confirmation

Employer: \_\_\_\_\_

Discipline: \_\_\_\_\_ Specialty: \_\_\_\_\_

How did you learn of this course \_\_\_\_\_

Education Resources reserves the right to cancel any course due to insufficient registration or extenuating circumstances. Please do not make non-refundable travel arrangements until you have called us and received confirmation that the course will be held. We are not responsible for any expenses incurred by participants if the course must be cancelled.

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