



Integrative Breathing Therapy Professional Training

Module 1 – The Neuromuscular and Biomechanical Dimension

Day 1 – Registration
8:30 – 9.00am

SESSION ONE: (90min)

Welcome

Housekeeping, introductions, seminar outline and aims

Topic 1: Optimal, functional and dysfunctional breathing. Understanding the multiple functions of breathing and their impact on health and physical function. The EAARS framework for understanding breathing functionality.

Topic 2: The multidimensional model of dysfunctional breathing. Defining the key dimensions. Overview of assessment and treatment.

Topic 3: Breathing as therapy. Overview of key breathing therapies and clinical effectiveness. Define and describe Integrative Breathing Therapy.

Morning Tea
10.30 – 11am

SESSION TWO: (90 minutes)

Topic 4 : Overview functional anatomy of respiratory system and ventilation – theory. Review anatomy of the upper airway, chest wall, lungs, alveoli. Breathing and pressure. Ventilation and perfusion. Volumes and capacities of the lungs. Pulmonary and alveolar ventilation. Compare effects of deep/ slow and rapid/shallow breathing on pulmonary and alveolar ventilation. (45 mins)

Practical (10 minutes)

Breath holding time tests and interpretation. Exploring breathing rate and depth, deep/shallow, slow/rapid breathing.

Topic 5: Functional anatomy - Muscles involved in respiration (30) minutes)

Anatomy , neural regulation and function. Normal and abnormal length, tension, tone and co-ordination of diaphragm, abdominal muscles, chest wall, throat muscles,

respiratory muscles. Sensory, afferent and non respiratory functions of breathing muscles. Influence on chest wall movement. Rib cage and respiratory muscles effects on dyspnea, ventilatory drive and breathing control. The respiratory pump and fluid dynamics.

Practical (5 minutes)

Diaphragm/abdomen co-ordination - The curl back exercise

**Lunch
12.30pm – 1.30pm**

SESSION THREE: (90min)

Topic 6: Functional and dysfunctional breathing patterns. (60 minutes)

Active and relaxed configurations of breathing. Effects of posture, rate, volume, ventilatory drive on thoraco-abdominal configurations of breathing. Thoracic and paradoxical breathing. When are these functional and when dysfunctional?
Breathing stability, regularity and irregularity- What is a functional and dysfunctional. Sighing, yawning. Breath holding and the orienting reflex. Breathing regularity and homeostasis.

Breathing rates and ratios- inhalation, exhalation and the pauses. What's optimal, functional and what's dysfunctional.

Breathing depth and volume- Functional and dysfunctional volumes of breathing.

Breathing motion disorders in the larynx and throat- Paradoxical vocal fold motion, muscle tension dysphonia.

Practical- Experiencing your own functional breathing responses. Active and relaxed configurations of breathing. Exploring diaphragm and abdominal interactions with changes in muscle tone of the abdomen, speed and depth of breathing. Finding the 360 degree breath. Feeling throat involvement in breathing. (30 minutes)

**Afternoon Tea
3pm – 3:30pm**

SESSION FOUR: (90 mins)

Topic 7: Breathing posture, motor control and muscular-skeletal dysfunction (30 minutes)

How breathing influences "core" stability and mechanisms of sensory- motor control.

Impact of dysfunctional breathing on muscles with dual respiratory and movement functions.

Breathing and its influence on postural patterns and structure. Inhalation and exhalation dominant patterns in posture.

Practical (60 minutes) Evaluate and interpret postural and musculo-skeletal signs of dysfunctional breathing - forward head posture, inhalation and exhalation patterns, rib cage distortions, unilateral and bi-lateral rib flare, xyphocostal angle.

Session Close
5.00 pm

Day 2 - Arrival
8:30 – 9am

SESSION ONE: (90min)

Topic 8: History taking of the patients with breathing pattern disorders. Getting the context-Red flags, yellow flags, understanding causes and contributing factors. Recognizing dyspnoea pathologies. Using the Nijmegen Questionnaire and the Self Evaluation of Breathing Questionnaire.

Morning Tea
10.30 – 11am

SESSION TWO: (90min)

Topic 9: Role of biomechanical breathing dysfunction in back, neck pain, shoulder, pelvic pain, TMJ, nerve syndromes (brachial plexus) chronic pain and digestive disorders, disorders of speech and vocalization, athletic performance, cardiovascular, respiratory disease.

Case studies and discussion on integrative treatment approaches that include breathing retraining.

Practical-Discussion and Case studies

Lunch
12.30 – 1.30pm

SESSION THREE: (90min)

Topic 10: Hi Lo breathing assessment and Manual Assessment of Respiratory Motion (MARM).

Practical- Practice Hi Lo and simplified and original MARM protocols and notation systems.

Afternoon Tea
3 – 3:30pm

SESSION FOUR: (90min)

Topic 11: Breathing protocols to retraining breathing pattern and restore diaphragm function. Tools for restoring diaphragm strength and function. Principles of motor learning applied to breathing retraining. “Breathing Basics” protocol with 3-step breathing, pursed lip breathing, breathing and sound. Using reduced volume breathing to improve diaphragm function.

Practical Learn and teach Breathing Basics protocol with variations.

Session close
5pm

Day 3 - Arrival
8:30 – 9am

SESSION ONE: (90min)

Topic 12: Upper airway- nasal, oral and pharyngeal contribution to breathing dysfunction. Structure and function of the nose and pharynx. The autonomic nervous system and the upper airway. Cranial nerves and the upper airway.

Common dysfunctions of the nose- nasal obstruction, disuse, deviated septum, hypersensitivity, infection, congestion. Paradoxical vocal fold dysfunction (PVD) and

muscle tension dysfunctions.

Practical- Case discussions. Evaluating nasal and upper airway. Techniques and integrative/multidisciplinary approaches to improving oral and pharyngeal function.

Morning Tea
10.30 – 11am

SESSION TWO: (90min)

Topic 13: Nose and Mouth Breathing. Consequences of mouth breathing- Structural and functional. Cranial and facial development, airway size and function, sleep, pharyngeal tone, oral health, nitric oxide, brain oscillations, cognitive interactions.

Nasal Rehabilitation. Improving nasal health. Buteyko Method and other approaches for improving nasal breathing. Improving non-respiratory functions of the nose. Nasal massage and lymphatic drainage.

Practical Practice and teach nasal rehabilitation techniques.

Lunch
12.30 – 1.30pm

SESSION THREE: (90min)

Topic 14: Breathing and fluid dynamics. Lymph, venous return, cerebral spinal fluid.

Practical Learn and practice breathing techniques to promote fluid dynamics.

Afternoon Tea
3 – 3:30pm

SESSION FOUR: (90)

Topic 15: Discussion, Case studies, Clinical protocols.

Seminar closure
5pm