

Just Breathe 101: Breathing Pattern Disorders and Their Consequences

The Influence of the Thorax and Respiration on Spine Health and Trunk Stability. An Evidence Based Practice solution.

"Foundation, Form, Function and Fun"

7:30 Registration

8:00 Introductions and Objectives of Seminar

Evidence Based Practice and clinical observations

Clinical implications for a variety of patient populations

LBP, neck pain and headache, chronic pain, fibromyalgia, athletes

8:30: Anatomy

Respiratory and Thoracic anatomy/biomechanics

Thoracic anatomy, rib anatomy, thoracic biomechanics, CT junction and TL junction mechanics

9:30 Biomechanics and Rib Lab

Rib decompression and mobility mobilizations

Case Histories

Break 10:15

10:30 Muscles of Respiration

Diaphragm, external/internal intercostals, accessory muscles, abdominal muscles

Mechanics of breathing

Normal breathing-mechanical effects

Physiology of Respiration

Lung volumes

Lung perfusion

Understanding pH and the effects of breathing on pH

Hyperventilation/alkalosis

Function of the Diaphragm

Diaphragm dysfunction

Diaphragm dysfunction in critical care

Respiration Lab

Diaphragmatic, lateral costal, sternal, apical breathing

Thorax and breathing exercises

Breathing Reach Progressions

12:00 - 1:00 Lunch

1:00 Trunk Musculature

Core-Inner group

Outer Group

Posterior Oblique

Deep Longitudinal

Anterior

Lateral

Psoas/hamstring integration

Scalenes, SCM, Cervical Spine Muscles

Fascial integration

Thorocolumbar fascia

Lateral femoral fascia/IT band

Abdominal fascia

Cervical/UE and Pelvis/LE relationships

Neuromuscular Control

Spinal stability normal and in dysfunction

Relationship of passive stabilizers to active stabilizers to motor control

Central nervous system on muscle tone and movement

Neural stiffness and resting length and timing

Fascial length issues

Neural length issues

Postural derivations

Posture, triple core and gravity issues

2:30 break

2:45 Lab

Evaluation techniques

Postural views

Habitual movement testing

Standing torque test

Length testing

Hamstrings, gluts, adductors, psoas, periformis, erector spinae, lat
dorsi, quadratus lumborum

Seated arm Raise

Seated trunk rotation

with and without Lat Dorsi

Fascial length

Muscle Function Testing

Supine active SLR

TA, Multifidus and Pelvic Floor

Posterior Oblique system

Anterior Oblique System

Lateral system

Finish Day 1: 4:30

Day 2

8:00 Sympathetic and Parasympathetic responses on muscle tone, anxiety levels, neural sensitivity

8:45: Theory and EBP on Altered Breathing Patterns

Sub optimal breathing patterns

Over-inflation and upper chest breathing

Diaphragm and thoracic restriction effects on the lumbar spine/ hips, C spine
and UE

Respiratory alkalosis/hyperventilation and the consequences

Chronic fatigue, fibromyalgia, chronic pain, sleep apnea

Case Histories

10:00 Break

10:15 Trunk stability and the diaphragm/core

Posture and poor load tolerance

Case Histories

Incontinence and back pain

Elderly and scoliosis

Case histories

Balance

Case Histories

Lunch 12:00- 1:00

1:00 Athletic performance

Inspiratory muscle function and fatigue

Inspiratory muscle training theories

The functional athlete

Case Histories

1:45 Lab Fascial lengthening program

Core facilitation and training program progressions

3:00 Break

3:15 Core facilitation and training program progressions continues

Triple core concepts

Low Level Ground motion

Parkour concepts

4:30 Finish