PRIVY Episode #437

RESPIRATORY BLOCKAGE

by Ron Hruska

In the Postural Respiration course manual there are six concepts that highlight polyarticular attributes of Anterior Interior Chain (AIC) musculature. These six concepts are further discussed and described in greater detail in an article that I authored which was published in the Dental Clinics of North America in April 1997. The title of the article is *'Influences of Dysfunctional Respiratory Mechanics on Orofacial Pain.'* This article is referenced in this course appendix.

The fifth concept states, "Any lengthening, untwisting, compensation, pain or exertion can cause *respiratory blockage* upon inhalation (posterior mediastinal expansion is usually restricted upon exhalation secondary to torsional influence of contralateral diaphragm)."

One of the first references, regarding respiratory "restrictive patterns" or "physical block" secondary to "superimposed movement and breathing patterns" was found in an article written by Imke Buchholz. *(Buchholz I: Breathing, voice, and movement therapy: Applications to breathing disorders. Biofeedback Self Regul. 1994, 19:2.)*

Insufficient bilateral abdominal opposition, corresponds to abdominal muscle lengthening, abdominal muscle untwisting (the rectus abdominis muscle is overactive), and compensation from the thoracic diaphragm (especially crural muscle) and back extensors.

Thoracic rotation requires twisting of the central diaphragm through lengthening of the hemi-diaphragm on the side the thorax is rotating away from and shortening of the hemi-diaphragm on the side the thorax is rotating toward.

Sufficient diaphragm to thorax apposition is maintained when sufficient opposition is provided by the transverse and internal oblique abdominals. Insufficient opposition can occur on one or both sides of the thorax. Pain (thoracic related) and exertion (use of accessory respiratory inhalers) can contribute to increased limitation of chest expansion, or 'respiratory blockage" upon inhalation as Imke Buchholz would describe; simply because one is exerting to get more air in, when in fact they are in some degree of hyperinflation.

This insufficient abdominal opposition is often associated with hemi-diaphragm over-use (usually the right) for primary respiratory effort, resulting in imbalanced "lengthening, untwisting, and compensation" of the hemi-diaphragm itself (over apposed leaflet).

This imbalance of bilateral hemi-diaphragm opposition usually results in posterior mediastinal expansion restriction upon inhalation secondary to torsional influence of the (hemi) diaphragm that is shortened in comparison to the contralateral hemi-diaphragm. Posterior mediastinal expansion restriction, upon exhalation, would more than likely exist secondary to torsional constraint placed on the hemi-diaphragm that is lengthened in comparison to the other hemi-diaphragm.

[New sentence for the 5th concept] "Any **abdominal or diaphragm** lengthening, untwisting, compensation, **thoracic related** pain or exertion can cause respiratory blockage upon inhalation (posterior mediastinal expansion is usually restricted upon exhalation secondary to torsional influence of contralateral **hemi-**diaphragm, **where posterior mediastinal expansion is usually restricted upon inhalation secondary to torsional influence of ipsilateral hemi-diaphragm.**"

Therefore, these concepts remind the reader that 'respiratory blockage' is a condition related to the shortening of thoracic diaphragm and psoas musculature and their associated soft tissue.