

Your Diaphragm* Don't Leave Home Without It

*(Nothing to do with birth control.)

by Frank Mahony

Abstract. Discussion and demonstration regarding the hypertonic state of the respiratory diaphragm, its impact on physical, mental, and emotional states, and how to identify and release the hypertonic state.

As to the title, perhaps I should have added, "...and don't leave home with it in a hypertonic state!" For those of you not familiar with HYPERTON-X, this method focuses on the hypertonic state of muscle and tissue which I have found to have a profound negative impact on all areas of our well being.

By medical definition, hypertonic refers to a muscle being over resistive to stretch. My experience led me to the conclusion that what I was dealing with was muscle and tissue in an over protective state, symptomized by pain weakness, and/or restricted range of motion, but always restricted range of motion. More simply put, muscle and tissue that doesn't want to be used, or is willing to be used only in a very limited way. For the sake of easy reading I will henceforth use the term "tissue" when referring to muscle and tissue.

Hypertonic tissue appears to cause interference in two ways: mechanically and electrically. Mechanically hypertonic tissue can interfere with vital body rhythms related to the flow of cerebral spinal fluid (CSF), blood, and lymph. Electrically, hypertonic tissue appears to jam neuro circuits with excessive noise or static causing confusion in processing sensory information, both incoming and outgoing. In this state, the body withdraws into its COMFORT ZONE. This is the area in which the body performs as best it can, but in a limited way. Perhaps the person selects a career or activity in which he can feel comfortable, and can do quite well with the choice. However, if anything occurs that forces the person to operate out of his comfort zone, performance suffers greatly, or is very inconsistent. The object of HYPERTON-X is to identify and release the hypertonic state of tissue and restore the body to a proper state of well being, and to enlarge the comfort zone.

In 1982 I was introduced to SOT, or, Sacral Occipital Technique, a cranial sacral method developed by DeJarnette which deals with the interaction of the sacrum and occiput, and the effect on CSF. Free movement of these areas is held to be important to the state of homeostasis, or, in the AK vernacular, balance. With this in mind I began looking at the hypertonic state of tissue restricting movement in these areas rather than the hypotonic state as dealt with in AK, and TFH. The premise was to identify tissue that was in someway restricting the proper movement of the sacrum and occiput, which are vital components in the CSF pumping mechanism. This led me to a basic system involving seven muscles that interacted with each other and were related to the SOT complex. I called this protocol the Magnificent Seven.

In 1984 I developed a priority system which pointed to the diaphragm as the priority muscle 80 to 90% of the time. At first this was puzzling as I could see no obvious relationship of the diaphragm, CSF, or balance, so certainly there was no intent on my part that would have brought this result. I was perfectly happy with just seven muscles to work with. However, researching the diaphragm as it relates to homeostasis resulted in many important revelations.

According to Walters (*Applied Kinesiology - Synopsis*), the diaphragm is the master muscle of the entire acupressure meridian system. If it is not functioning properly, the meridian system will not stay in balance. Further, both Goldberg (*Clinical Anatomy Made Ridiculously Simple*), and Upledger (*Cranial Sacral Therapy*) note that the diaphragm is connected to the pericardium, the sheath around the heart. The pericardium is fascially connected via the carotid arteries to

the dura mater and therefor the cranium. This suggests that movement of the diaphragm is dynamically involved with the cranial sacral apparatus and therefore an important involvement with homeostasis.

The Diaphragm is a dome shaped muscle (see illustrations at end) that transverses the body attaching to the lower six ribs, xiphoid process (bottom of the sternum), and the first, second, and third lumbar vertebrae. Internally it rises approximately to the level of the fourth rib, but is slightly higher on the right side than the left due to the mass of the liver which lies under it. On inspiration the diaphragm moves downward.

There are only a few key openings in the diaphragm for the passage the aorta, the blood supply for the lower body and the venal return, vagus and epigastric nerves, esophagus, and upper attachments of the psoas muscles. The opening for the esophagus is the sight of hiatal hernia where the esophagus bulges up and into the diaphragm opening, or the opening has itself ruptured or distorted. What is often dealt with in AK parlance is pseudo hiatal hernia where the abdominal mass is jammed up against the diaphragm. The symptoms are similar and either situation can be very uncomfortable, but often relief is obtained by the correction below, but a true hiatal hernia may require surgery. So do the best you can but don't play doctor.

Upledger further points out, if we consider muscle fascia (sheath around muscle) generally running vertically, or head to foot, that the diaphragm is a potential horizontal restrictor if it is hypertonic, which further supports my experiences and results.

The diaphragm is often involved with emotions and traumatic experiences and will tense up when we are in a state of fear or anxiety. It is also brought into play when crying, vomiting, gagging, choking, coughing, screaming, laughing, etc. If you have ever had "the wind knocked out of you," you can easily see the connection with the diaphragm in that experience.

In a process not yet understood, life experiences find a home in body tissue,

resulting in a hypertonic state. i. e., the tissue does not want to be used, or stimulated in anyway that reminds it of the experience. I am sure by now you have an idea of the potential disturbance a hypertonic diaphragm can cause. The question is, what to do about it?

Demonstration

First perform several standard Touch For Health muscle tests, but do not correct any weak muscles. Then ask the person to inhale deeply. Watch the abdominal wall and the rib cage. If the diaphragm doesn't want to be used (hypertonic) usually the rib cage will expand and the abdominal wall will sink in toward the spine.

If the diaphragm is functioning properly the abdominal wall will expand. This indicates that the diaphragm is pulling down toward the hips. It is this action that creates a vacuum in the lungs causing air to be sucked in.

If the diaphragm does not move down, then the rib cage must expand to create the vacuum effect to compensate for the lack of proper diaphragmatic involvement. Obviously in this state the body is not able to get all the oxygen it may need, particularly when subjected to strenuous activity. For optimum results the diaphragm and rib cage must both be involved.

Dynamic Test. This should be performed on both phases of respiration; Inhalation and exhalation. The diaphragm may be hypertonic on either or both phases.

In-Breath. Place your hand on the person's abdomen just below the ribs. Have the person inhale while expanding the abdominal wall. Your hand should be pushed away. When fully expanded have the person hold the breath.

Apply firm pressure toward the spine and test a strong indicator muscle (IM). If the IM unlocks the diaphragm is hypertonic.

Out-Breath. Have the person exhale so that the abdominal wall depresses totally. If the IM tests weak the diaphragm is hypertonic on the exhalation phase.

Have the person breath deeply for five or more cycles with dynamic movement of the abdominal wall.

Repeat the muscle tests and note any differences. Most often when a hypertonic diaphragm is activated, muscles that were previously strong will test weak. In this event the person often avoids activities that require sustained deep breathing such as, long distance running, swimming, et al. In short duration or low oxygen demand activities the body can compensate for the lack of diaphragmatic activity by transferring the demand to the rib cage, or "it" comfort zones.

But as the activity is sustained, the demand for oxygen overrides the comfort zone compensation and the diaphragm is activated. As you can see by the above demonstration the performance of various muscle groups are then greatly impaired, which can result in pain and/or injury as the desire to stay in the race, or whatever, overrides the body's distress signals.

Also, a negative emotional charge is often involved with a hypertonic diaphragm and the person may experience emotional stress as well, and perhaps feel nauseous, dizzy, or other discomforts.

Correction

Have the person inhale deeply expanding the abdominal wall as in the dynamic test above. While the breath is held apply firm pressure to the abdominal wall below the rib cage for six seconds. The person then exhales and relaxes. When the abdominal wall bottoms out, apply gentle pressure against the abdomen as the person inhales.

Have the person breathe in fully expanding the abdominal wall and retest the IM as pressure is applied to the abdomen as the breath is held. The IM should now test strong.

REPEAT DEEP BREATHING AND MUSCLE TESTING AS ABOVE IN DYNAMIC TEST STEP

In most cases all muscles will test strong including muscles that were weak before involving the diaphragm in the procedure.

If the Diaphragm Does Not Correct

This can be due to several reasons. The body may be processing and needs more time. Ask the body for a Yes or No on this and what needs to be done.

There could be emotions involved. Have the person think about using the diaphragm and test the IM. If weak, there is an emotional charge that needs to be cleared, which usually is connected to earlier experiences where breathing was impaired such as near drowning, being tickled to the extreme, etc. This can be done in many ways, so go with what you know (or take HT-X 4. Get It?). For the sake of this demonstration, just hold stress points and wait for the therapeutic sigh.

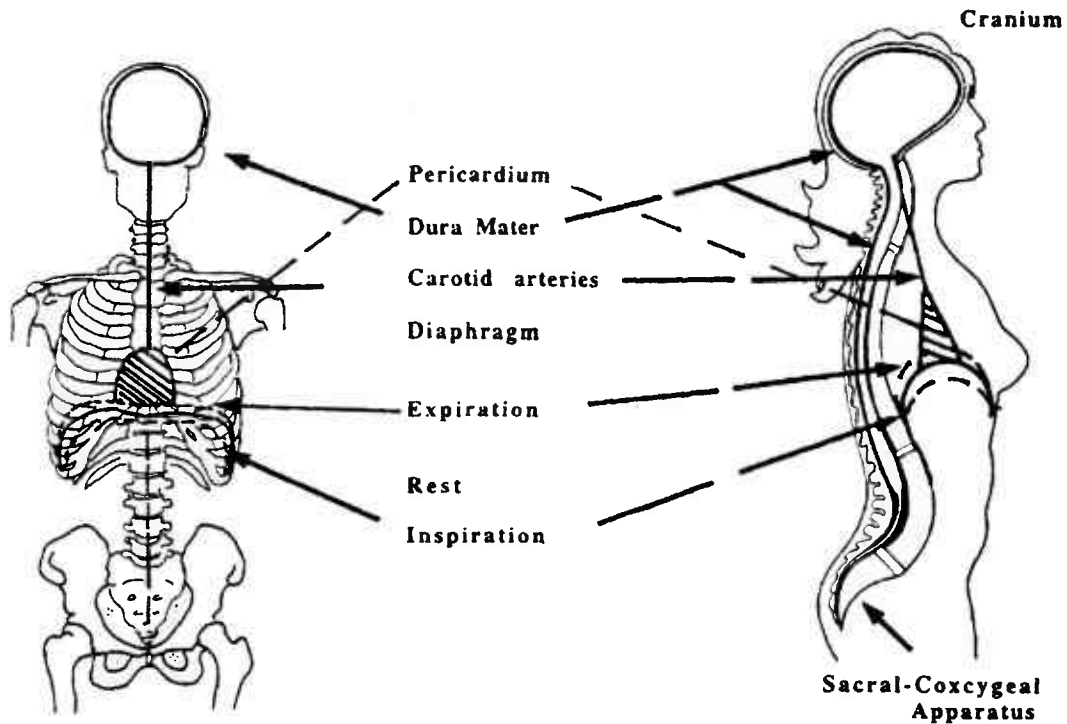
In 1986 I was made aware that Dr. Tony Andressen of London had realized the importance of the dysfunctioning diaphragm in his medical practice and had devised a diaphragm maneuver which he had employed in his practice for many years with impressive results. For Information on his methodology contact Kay McCarroll in London. (See TFH and IASK rosters).

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Sponsors Invited



The action of the respiratory diaphragm is much like a piston in a combustion engine. As the diaphragm moves up and down during respiration, the force of the movement is transferred via the pericardium and carotid tissue to the dura mater, and then via the dural tube to the sacral coxycygeal apparatus. This

can be thought of as a piston-pulley system as shown in the diagram. It then becomes obvious that the interaction of these three component parts is critical and what can happen if one, or all three, are in a restricted or misaligned state.

