Health and Wellness

Breathing exercises that help to reduce pain and stress in our lives

By Erik Peper, PhD

"Although difficult and going against my natural reaction to curl up in the response to my cramps, I stretched out on my back and breathed slowly so that my stomach got bigger with each inhalation. My menstrual pain slowly decreased and disappeared."

"I never felt the injection when I exhaled, yet previously it hurt when I held my breath."

"For as long as I remember, I had stomach problems and when I went to doctors, they said, I had acid reflux. I was prescribed medication and nothing worked. The problem of acid reflux got really bad when I went to college and often interfered with my social activities. After learning diaphragmatic breathing so that my stomach expanded instead of my chest, I am free of my symptoms and can even eat the foods that previously triggered the acid reflux."

In the late 19th and earlier part of the 20th century many women were diagnosed with neurasthenia. The symptoms included fatigue, anxiety, headache, fainting, light headedness, heart palpitation, high blood pressure, neuralgia and depression. It was perceived as a weakness of the nerves. Even though the diagnosis is no longer used, similar symptoms still occur and are aggravated when the abdomen is constricted with a corset, or by stylish clothing, as in Figure 1.

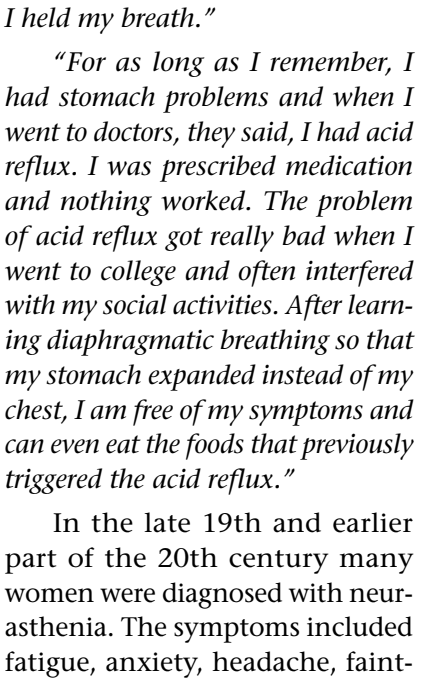

Figure 1. Wearing a corset squeeze the abdomen.

The constricted waist compromises the functions of digestion and breathing. When the person inhales, the abdomen cannot expand as the diaphragm is flattening and pushing down. Thus, the person is forced to breathe more shallowly by lifting their ribs which increases neck and shoulder tension and the risk of anxiety, heart palpitations and fatigue. It also can contribute to abdominal discomfort, since the abdomen is being squeezed by the corset and forcing the abdominal organs upward. It was the reason why the room on top of stairs in the old Victorian houses was called the "fainting room."

During inhalation the diaphragm flattens and attempts to descend which increases the pressure of the abdominal content. In some cases this causes the stomach content to be pushed upward into the esophagus, which could result in acid reflux. To avoid this, health care providers often advise patients with acid reflux to sleep on a slanted bed with the head higher than their feet so that the stomach content flows downward. However, they may not teach the person to wear looser clothing that does not constrict the waist and prevent "designer jean syndrome." If the clothing around the waist is loosened, then the abdomen can expand in all directions in response to the downward movement of the diaphragm during inhalation and not squeeze the stomach and thereby pushing its content upward into the esophagus.

Many persons have experienced the benefits of loosening the waist when eating a large meal. The moment the stomach is given the room to spread out, you feel more comfortable. If you experienced this, ask yourself, "Could there be a long term cost of keeping my waist constricted?" A constricted waist may be as harmful to our health as having the emergency brake on while driving a car.

We are usually unaware that shallow rapid breathing in our chest can contribute to symptoms such as anxiety, neck and shoulder tension, heart palpitations, headaches, abdominal discomfort such as heart burn, acid reflux, irritable bowel syndrome or dysmenorrheal and even reduced fertility.

Assess whether you are at risk for faulty breathing

Stand up and observe what happens when you take in a big breath and then exhale. Did you feel taller when you inhaled and shorter/smaller when you exhaled?

If the answer is YES, your breathing pattern may compromise your health. Most likely when you inhaled you lifted your chest, slightly arched your back, tightened and raised your shoulders, and lifted your head upwhile slightly pulling the stomach in.When you exhaled, your body relaxed and collapsed downward and even the stomach may have relaxed and expanded. This is a dysfunctional breathing pattern and the opposite of a breathing pattern that supports health and regeneration, as shown in figure 2.

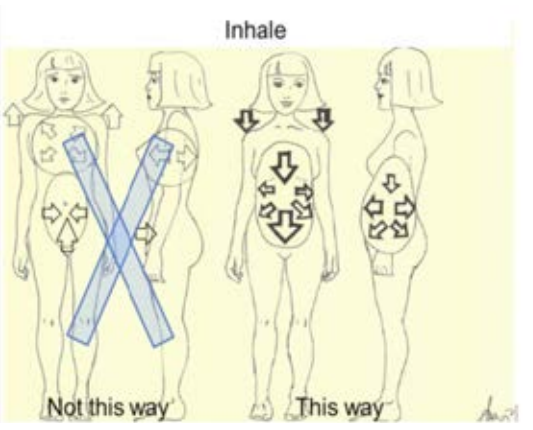

Figure 2. Correct and incorrect breathing. Source unknown.

Observe babies, young children, and dogs and cats when they are peaceful. The abdomen is what moves during breathing. While breathing in, the abdomen expands in all 360 degrees directions and when breathing out, the abdomen constricts and comes in. Similarly when dogs or cats are lying on their sides, their stomach goes up during inhalation and goes down during exhalation.

Many people tend to breathe shallowly in their chest and have forgotten — or cannot allow their abdomen and lower ribs to widen during inhalation. These factors include:

- Constriction by the modern corset called "Spanx" to slim the figure, or by wearing tight fitting pants. In either case, the abdominal content is pushed upward and interferes with normal healthy breathing.
- Maintaining a slim figure by pulling the abdomen. (I will look fat when my stomach expands; I willsuck it in).
- Slouching as we sit or watch digital screens, or look down at our cell phone.

Observe how slouching affects the space in your abdomen.

When you shift from an upright erect position to a slouched or protective position, the distance between your pubic bone and the bottom of the sternum — xiphoid process — is significantly reduced.

- Tightening the abdomen to protect ourselves from pain and danger, as shown in Figure 3.

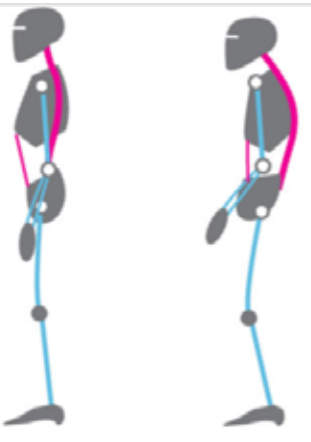

Figure 3. Erect versus collapsed posture.
There is less space for the abdomen to expand in the protective collapse position. Reproduced by permission from Clinical Somatics www.clincalsomatics.ie/

- Avoiding postsurgical abdominal pain by inhibiting abdominal movement. Numerous patients have unknowingly learned to shallowly breathe in their chest to avoid pain at the site of the incision of the abdominal surgery, such as for hernia repair or a cesarean operation. This dysfunctional breathing became the new normal unless they actively practice diaphragmatic breathing.

Regardless why people breathe shallowly in their chest or avoid abdominal and lower rib movement during breathing, by re-establishing normal diaphragmatic breathing many symptoms may be reduced, as in Figure 4. Numerous students have reported that when they shift to diaphragmatic breathing which means the abdomen and lower ribs expand during inhalation and come in during exhalation, their symptoms such as acid reflux and menstrual cramps significantly decrease.

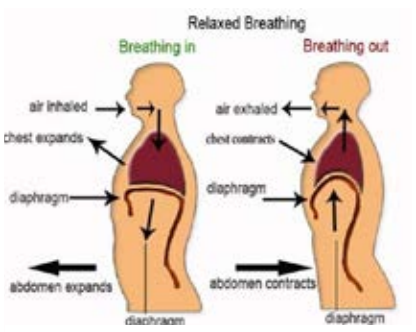

Figure 4. Diaphragmaticbreathing. From: www.devang.house/blogs/the-job/belly-breathing-follow-your-gut

Reduce acid reflux

A 21-year-old student, who has had acid reflux since age six, observed that she only breathed in her chest, and that there were no abdominal movements. When she learned and practiced slower diaphragmatic breathing which allowed her abdomen to expand naturally during inhalation and reduce in size during exhalation her symptoms decreased. The image she used was that her lungs were like a balloon located in her abdomen. To create space for the abdominal expansion, she bought larger size pants and practiced breathing many times during the day. Thus, when she felt stressed and she automatically tightened her abdomen, she interrupted this tightening and returned to abdominal breathing. Practicing this was very challenging, since she had to accept that she would still be attractive if her stomach became bigger. She reported that within two weeks her symptom disappeared, and upon a yearly followup has had no more symptoms. For a detailed description how this successfully cured irritable bowel syndrome see: https://peperperspective.com/2017/06/23/healing-irritable-bowel-syndrome-with-diaphragmatic-breathing/

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Take control of menstrual cramps

Numerous college students have reported that when they experience menstrual cramps, their natural impulse is to curl up in a protective cocoon. If they interrupted this natural protective pattern and instead lay relaxed on their back with their legs straight out and breathing diaphragmatically, they reported a 50 percent decrease in discomfort. For some, the discomfort totally disappeared when they placed a warm pad on their lower abdomen and focused on breathing slowly, about six breaths per minute, so that the abdomen went up when inhaling and down when exhaling. At the same time, they also imagined while exhaling that the air would flow like a stream from their abdomen down their legs and out their feet.

Breathing is a body-mind bridge and offers hope for numerous disorders. Slower diaphragmatic breathing at about six breaths per minute may reduce autonomic dysregulation. It has profound self-healing effects and may increase calmness and relaxation. At the same time, it may reduce heart palpitations, hypertension, asthma, anxiety, and many other symptoms.

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