

In the most basic sense, Coherent Breathing is simply a form of exercise - one that involves the diaphragm, a large internal sheath of muscle that separates the chest from the abdomen. However, because we can't see this large muscle in action, most of us have little awareness of its existence. Ultimately, this lack of awareness of the diaphragm and the *crucial* part it plays in the functioning of the body undermines our health.

When we inhale, the diaphragm flexes, moving downward. When we exhale, the diaphragm relaxes, moving upward. The diaphragm can move by as much as 10 centimeters. However, most adults only use 1 centimeter or 10% of this range. To put it in perspective, 0% movement results in death.

This under utilization of diaphragm range harms our health, our performance, and our longevity. Why? Because the diaphragm's job is to function as a "pump", where in the chest it *literally* pumps blood through the heart and lungs and in the abdomen it pumps both food and blood (via the mesenteric circulation) through the digestive tract.

When the diaphragm is doing its job properly the "autonomic" nervous system (the nervous function that controls heart rate and vascular capacity) and the "enteric" nervous system (the nervous function of the gut) synchronizes with it! Why?

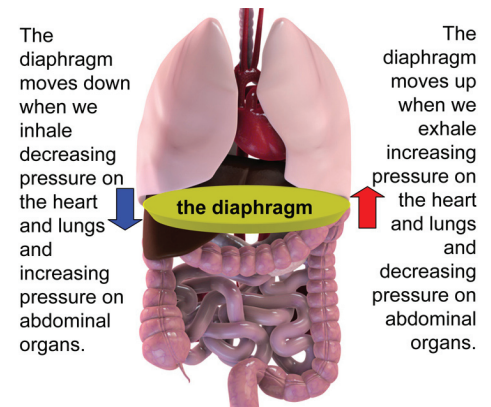
Because, when the diaphragm moves optimally, it aids the heart and vascular system in moving the blood in the body, and, it aids the gut in moving food through the digestive system. When the diaphragm does not move sufficiently, it *impedes* the action of both circulatory and digestive systems, blocking instead of facilitating normal action.

Of course, blood flow is fundamental to health. Blood is ultimately the source of hydration, nutrition, oxygen, hormones, etc., to every cell of the body. Cellular energy production is dependent on blood supply. This is why "exercise" causes us to breathe deeper and more rapidly - to increase both blood flow and blood gas exchange. This is also a reason that exercise is so critical to health, it requires us to breathe with more than 10% of range.

Impeding the flow of blood has the effect of causing the heart and arterial system to have to work harder to maintain adequate blood flow in the body. Impeding the flow of food through the digestive tract has a like affect on the gut, causing it to have to work harder to move food through the digestive system. These outcomes result in "stagnation" of the blood (a well known symptom in traditional Chinese medicine) and the more familiar "constipation" of the bowels.

Both autonomic and enteric nervous systems react to this challenge by working harder, in effect working overtime to keep things moving in the absence of the diaphragm doing its job. There are numerous side effects of this "working overtime": all of the muscles of the body become tense, blood pressure increases, the mind become agitated and anxious. This condition is generally referred to as "sympathetic bias". In the longer run, it results in acute and chronic disease.

We can avoid this outcome by learning to use our diaphragm correctly, employing 40-60% of diaphragm range. Its as easy as learning to ride a bicycle. In a nutshell it involves learning to breathe slowly, deeply, and rhythmically, at a frequency of about 5 breaths per minute and consciously relaxing during exhalation. The goal is to learn to breathe in this way - when at rest or semi-activity - all the time, circumstances permitting, thus yielding a lasting state of efficiency, balance, and harmony in the body and mind, the outcome being improved health, well-being, and performance.



The Diaphragm Separates Chest And Abdominal Cavities