

## **How Breathing Can Reduce Back Pain**

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Learning to breathe deeply and easily can dramatically improve chronic back, neck, shoulder and hip pain. Relaxed breathing may actually be the single most important thing you can do to reduce these types of pain. Let's understand why by taking a good look at our breathing.

We take the way we breathe for granted. Yet just like everything else we do, we can breathe well or poorly. The breath can be smooth or jerky, soft or harsh, deep or shallow, free or restricted. If your breathing is restricted--if it is shallow and fast rather than deep and slow, if it is uneven or labored, and if you have a tendency to hold your breath--this restriction will translate directly into increased effort, decreased mobility, and increased pain. How you breathe affects how easily you move, and how much tension or pain you feel.

You can discover for yourself how restricted breathing increases tension by doing a simple experiment. Start by sitting down in a chair. Then explore standing up several times. The first time you stand up, consciously hold your breath while you do this. The second time you stand up, breathe in by taking a nice deep inhalation exactly at the moment you shift your weight onto your feet as you stand up. Do you notice a difference between the two ways of moving from sitting to standing? If you breathe in as you stand up, you feel more comfortable and move more easily. Here's the reason. When you breathe, your muscles are relaxing. When you hold your breath (and many of us do when we go from sitting to standing), your muscles are contracting.

## *The Physiology of Proper Breathing*

Exploring the physiology of breathing makes the relationship between breathing, our health, and pain clearer. When we breathe into our lungs, it is the respiratory muscles that actually draw oxygen into the body. The most important of these muscles is the diaphragm, which is responsible for 75% of the respiratory work. How well the diaphragm works affects how deeply and easily we breathe, and this in turn affects the health of our organs and tissues.

Because the diaphragm is the single most important respiratory muscle, efficient breathing is called diaphragmatic breathing. When the diaphragm does its proper share of the work, we breathe well, and our breathing is relaxed and deep. When the diaphragm does not work the way it should, our breathing becomes restricted and labored. Your goal should be to learn how to make diaphragmatic breathing a habit.

The largest muscle in the body, and one of the strongest, the huge, double-domed diaphragm sits in the chest like a parachute. It is attached in front to the little bone at the end of the breastbone (the xiphoid process); on the sides to the cartilage of the seventh through twelfth ribs; and down the front of the spine to the first, second, third and fourth lumbar vertebrae. The diaphragm sits below the lungs and heart, and above the organs of digestion: the stomach, liver and gall bladder, pancreas, small intestine and large intestine. It is in turn connected to all of these organs through a web of connective tissue.

Here's how to find your diaphragm. Place your hands facing each other with fingertips touching, palms down, and with the inside of your hands (your thumbs and index fingers) contacting your sternum. Your hands should be horizontal. The resting position of your diaphragm is just below your hands.

When the diaphragm functions as it is meant to, it moves from this resting position and contracts downward to bring air into the lungs. Then it relaxes, moving back up to its original position, as air is expelled from the lungs. When the diaphragm descends and re-ascends freely, it brings an abundance of vital oxygen into the lungs. The lungs and heart in turn cooperate in transporting this oxygen to the tissues.

The deeper our breathing--or the more diaphragmatically we breathe--the more oxygen we take in. This translates into a greater flow of vital nutrients to organs like the heart and tissues, including all our muscles. When the diaphragm descends fully, it also massages and stimulates all the digestive organs that lie below it, squeezing and releasing them like sponges. Diaphragmatic breathing supports full digestion and elimination.

Poor, non-diaphragmatic breathing contributes not only to inefficient digestion and assimilation but also to tissue pain. When restricted breathing results in organs receiving insufficient fresh blood and nutrients, they begin to deteriorate. This deterioration communicates itself directly to the surrounding tissue, causing nerve, muscle and connective tissue inflammation. That inflammation translates into pain. In contrast to non-diaphragmatic breathing, diaphragmatic breathing contributes directly to muscle and connective tissue health.

Are you interested in learning more about how your breathing patterns affect your pain levels, and about how to breathe more efficiently? Upcoming articles explore additional ways diaphragmatic breathing can improve muscle function and reduce pain.

For further free information on how to reduce chronic pain, look at this website's other available free articles on pain and check into [www.ingridbacci.com](http://www.ingridbacci.com) on a regular basis for new articles. For systematic guidance and help in pain reduction, explore the

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