



Deep breathing is one of the most effective ways to help manage stress and anxiety. It's also easy, convenient – and free! When we are anxious, stressed, or perceive a threat, the body has an innate “fight or flight” response which activates the sympathetic nervous system. We begin to take shallow and rapid breaths directly from our chest (chest breathing). This type of breathing changes the distribution of oxygen and carbon dioxide in the body resulting in an increase in heart rate and blood pressure, muscle tension, release of stress hormones and other physical reactions. It causes the brain to operate strictly in survival mode, meaning logic and rational thought processes are minimal. Because the blood is not being properly oxygenated, long-term shallow breathing can actually keep the body in a cycle of stress and contribute to anxiety and panic attacks.

Deep breathing or belly breathing on the other hand, activates the parasympathetic nervous system, the “rest-and-digest” response resulting in an increased supply of oxygen to the brain and carbon dioxide in the blood. The brain detects the increased oxygen and responds by decreasing the concentration of stress hormones in the blood thus quiets down parts of the brain, like the amygdala, that handles anxiety response. The end result is a decrease in the body's natural response to stressors, increased clarity of thinking, a calm and relaxed state, and a return to homeostasis.

These two parts of the nervous system can't work at the same time, so if one is activated the other will automatically be suppressed.

Deep breathing involves using your diaphragm for optimal intake and exhalation of air. A simple way of assuring you are belly breathing is to put one hand on your chest and one hand on your belly just below the ribs. Take a deep breath in through your nose. Your belly should push your hand out and your chest should not move. Exhale through your mouth with pursed lips as though you were whistling. The hand on your belly should go in.

**Square breathing** is a simple technique of visualizing the breath traveling along a square. Take a **deep breath** which follows the left side of the square moving up toward the top. **Hold it** for a few seconds as it follows across the top of the square. Slowly **exhale** as it moves down



the right side of the square toward the bottom. **Pause** for a few seconds as it moves across the bottom of the square. Repeat the process several times. If you do this consistently enough, it will become a natural response.

