

Diaphragmatic Breathing: A Natural Therapy

Breathing Patterns

Generally speaking, people are either chest breathers (which means they primarily use their neck, shoulder and upper chest muscles) or abdominal breathers (which means they primarily use their diaphragms). Unfortunately, most people are chest breathers. This creates many problems.

- Chest breathing is usually rapid, shallow and irregular. This type of breathing pattern develops because the upper chest muscles can't move the amount of air we need for each breath.
- Upper chest breathing is a manifestation of the fight-or-flight response, and it can create the stressful feelings associated with that response. Even if you aren't under stress, if you continue to chest breathe, you will become stressed.
- While the lower lobes of your lungs receive the greatest amount of blood flow, they are not well oxygenated during upper chest breathing.

On the other hand, diaphragmatic breathing has many benefits.

- It decreases sympathetic nervous system stimulation (which is responsible for the fight-or-flight response). As a result, it produces a profound calming effect on your body and your mind.
- It may improve your range of breathing and range of motion. Chronic stress tends to restrict breathing capacity through breath holding and muscular tension, both of which inhibit breathing capacity.
- It improves oxygenation and increases the suction pressure in the chest, thereby improving venous return of blood to your heart.

Diaphragmatic Breathing

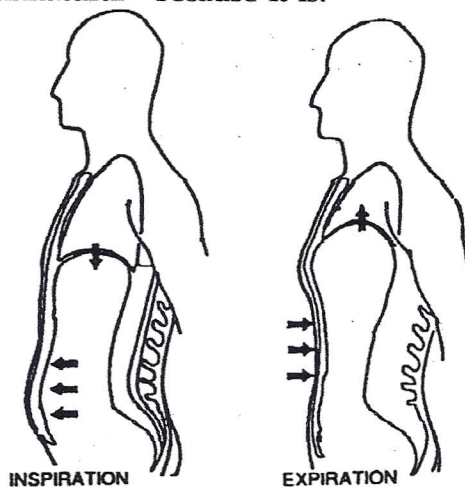
Your diaphragm is a large dome-shaped muscle located between your chest and abdomen. During inhalation, the muscle contracts and moves downward, causing a partial vacuum that forces air into your lungs. During exhalation, the

diaphragm muscle relaxes, which allows air to exit your lungs.

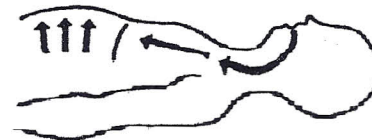
To practice diaphragmatic breathing, sit comfortably with your back straight. If possible, always breathe in through your nose, which warms and filters the air and adds moisture. In the beginning, you might want to place your left hand on your chest and your right hand on your abdomen. This will help you become aware of your diaphragm as you breathe.

Begin by relaxing into your exhale. That means to slowly exhale, allowing your lungs to empty quietly, as though you were sighing. As you breathe in, concentrate on the air moving into your abdominal area (as if you were breathing into your stomach). Your right hand will rise during inhalation and fall with the exhalation. You will feel movement in the abdominal area but the upper chest should remain still.

While this may feel unnatural at first, diaphragmatic breathing will gradually become automatic if you practice it on a regular basis. After a while, you will breathe diaphragmatically most of the time. When you are able to do this, then you will feel less stressed and more balanced. Eventually, breathing from your chest will feel unnatural—because it is.



Stomach expands with a slight effort during inhalation.



Stomach falls due to gravity for effortless exhalation.



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Mini Relaxation

One of the great things about breathing is that it is always with you. Mini relaxations are focused diaphragmatic breathing techniques which you can use anywhere, anytime to reduce anxiety and tension. No one even has to know what you are doing. Listed below are several minis. Try them out and see which ones work best for you.

I am relaxed.

Bring your awareness to your breathing. As you inhale, mentally say to yourself, *I am...* and while exhaling say ... *relaxed*. Or, use whatever phrase is meaningful and relaxing for you. Repeat several times.

Body Scan

With a total of four diaphragmatic breaths, you relax body parts sequentially within a thirty to forty-five second period.

As you exhale from the first breath, allow your jaw to relax (let go, become heavy and loose).

As you exhale from the second breath, allow your shoulders to relax.

As you exhale from the third breath, allow your arms and hands to relax.

As you exhale from the fourth breath, allow your legs to relax.

Breathing Countdown

Count very slowly to yourself from ten down to zero, one number for each breath. Thus, with the first diaphragmatic breath, you say *ten* to yourself; with the next breath, you say *nine*, etc. If you start feeling light-headed or dizzy, slow down the counting. When you get to *zero*, see how you are feeling. If you are feeling better, great! If not, try doing it again.

Imaginary Breathing

Imagine that there are holes in the bottom of your feet and that your breath enters and leaves through these holes. Every time you exhale, imagine that your breath leaves your body through imaginary holes in your feet. Feel the tension leave your body with each breath. Breathe several times, each time relaxing into the exhale.

Use Mini-Relaxation Exercises, when you are:

- Put on hold during a phone call.
 - Upset because someone said something that bothered you.
 - Feeling overwhelmed.
 - Stuck in traffic or stopped at a red light.
 - Starting a stressful task. This will help you relax and prepare.
 - Experiencing anxiety/stress signals.
 - Completing a stressful task. This will help you relax and unwind.
 - Standing in line or waiting for an elevator.
 - In pain. Imagine breathing out through the painful area.
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- Also, use mini-relaxation exercises several times during the day to reduce tension and prevent its buildup.

Remember, the only time minis do not work is when you forget to do them. So, get in the routine of doing minis several times a day.

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The Relaxation Response

The Stress Response

Before discussing the Relaxation Response, it is important that you understand what happens when you are under stress. The stress response, also called the fight-or-flight response, occurs automatically whenever we are faced with a stressful or threatening situation. The fight-or-flight response is controlled by an area of the brain called the hypothalamus. When confronted by a threat, real or imagined, physical or emotional, the hypothalamus causes the sympathetic nervous system to release chemicals that prepare the body to fight or flee. This results in:

- increased metabolism;
- increased heart rate;
- increased blood pressure;
- increased breathing rate; and
- increased muscle tension.

This response was crucial for the survival of our primitive ancestors. Fortunately, today we are not often faced with the life-threatening situations that primitive people responded to frequently. Furthermore, the body cannot distinguish between a serious threat and the everyday stress or hassles of modern life. In fact, simply thinking about a stressful situation is often enough to trigger the fight-or-flight response.

While the fight-or-flight response is useful, and necessary in times of emergency, researchers studying the long term effects of the fight-or-flight response have concluded that chronic stimulation may lead to permanent, harmful physiological changes. Therefore, we must find ways to control the harmful aspects of this primitive, physiological response and neutralize the negative affects of modern stress on our health and well-being.

The Relaxation Response

The relaxation response is the opposite of the fight-or-flight response. It causes a physiological response which brings about a reduction in sympathetic nervous system activity. Just as stimulating the hypothalamus can cause the stress response, reducing the stimulation results in relaxation. Physiologic changes that occur with the relaxation response include:

- decreased metabolism;
- decreased heart rate;
- decreased blood pressure;
- decreased breathing rate; and
- decreased muscle tension.

When the stresses of modern life trigger the fight-or-flight response, the relaxation response can be used to counteract the harmful effects of stress. While the fight-or-flight response usually occurs involuntarily, or automatically, conscious elicitation of the relaxation response most often needs to be practiced. If practiced regularly, it produces a state of profound relaxation and has lasting effects throughout the day.

When we think of relaxing, we often think of the image of letting go. Physically, we mean releasing muscles from habitual conscious tension. It also means breathing slowly and regularly, using the exhale to let go of tension. On an emotional level, it means cultivating an attitude of calmness. Mentally, it means observing and letting go of troubling, worrisome thoughts.

To elicit the relaxation response, most people need to develop techniques to help them let go more deeply. Techniques which elicit the relaxation response include:

- meditation (focus on a word, phrase, or short prayer);
- diaphragmatic breathing;
- imagery;
- yoga stretching;
- progressive muscle relaxation;
- mindfulness; and/or
- autogenic training.

Although each of these techniques seem different, all of them have two basic components.

- 1) A mental focusing device, such as watching your breathing pattern or repeating a word, phrase, prayer, or sound; or using repetitive muscular activity to help you shift your mind from everyday thoughts and worries.
- 2) A passive attitude toward distracting thoughts, which means not worrying about how well you are doing, but gently directing your mind back to your mental or exercise focus when you notice yourself caught up in train of thought.

You will have an opportunity to experiment with these various techniques. For many, a

The Relaxation Response

combination of these techniques become part of a personal health regimen. For others, one or two prove to be most helpful.

General Guidelines for Eliciting the Relaxation Response

When

For many people, the best time to practice is before breakfast because you can set a positive tone for the rest of the day. If you live with others, early morning practice can become a treasured moment. If your regular time for the relaxation response is not the morning, you might consider taking five minutes anyway just to create a foundation of awareness for the rest of the day. Another time is often in the evening at the end of the day. The ideal is to develop a routine, a time to bring forth the relaxation response that becomes as much a part of the day as brushing your teeth. Remember, the more you practice the easier it will become to elicit the relaxation response and decrease sympathetic nervous system activity.

Where

If possible, practice in a quiet place where you will not be disturbed. If necessary, unplug your telephone. If you live with others, ask your family not to bother you during this relaxation time. Choose a place that feels safe. Some people enjoy making a special corner for themselves with a few selected objects like a beautiful plant or a picture that reminds them of peaceful moments in their lives.

Position

Generally, it is recommended that you practice the relaxation response sitting up in a fairly straight-back chair that provides good support. If you find sitting uncomfortable, experiment with a reclining chair or lie on your back.

How Long to Practice

Ideally, set aside ten to twenty minutes, twice a day, to elicit the relaxation response. Remember, eliciting the relaxation response is a central part of your treatment plan, your prescription if you will, and that its benefits will be linked to how faithfully you incorporate the relaxation response into your daily schedule.

How to Focus Your Mind

It is quite normal for thoughts to come and go as you elicit the relaxation response. In the beginning, you may be surprised at how difficult it is to keep your mind focused. When this happens,

simply note that your mind has wandered, passively ignore the thoughts and go back to what you were focusing on.

Stress Hardiness

The concept of stress hardiness or resistance to stress was developed by Dr. Suzanne Kobasa. Her research and others have shown that some individuals are less vulnerable to stress and have stress-hardy characteristics which are associated with a decreased incidence of illness and lower absenteeism in the workplace. These include:

Commitment:

People who are high on commitment are fully involved in what they are doing and they give it their best effort—their best shot. They have a curiosity about whatever is happening to them versus feelings of alienation from people or the environment.

Control:

People who feel that they are in control believe that they can influence events and surroundings, that they can make things happen. They have a strong sense of self-efficacy and an internal locus of control versus feelings of powerlessness or being a victim of circumstances.

Challenge:

People who take on life as a challenge welcome new situations as opportunities to learn, grow and develop on a personal level, rather than looking at everything new as a possible threat.

Many add a fourth C - closeness. Everyone who wants to be stress hardy must have someone to share life's joys and stresses and be there when times are tough.

Approaching life with positive attitudes identified as the 4 Cs is healthy and will help you take an active role in your healing process. Making a commitment to enjoy learning how to relax your body and mind is one way you can begin to increase your stress hardiness.

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