Healthy & Restricted Breathing

Description

Introduction to Breathing

For the physical process of breathing, see The Anatomy of Breathing. In this lesson, we focus on the physiological and emotional effects of various breathing patterns

- Breathing affects every system in the body.
- Unlike other functions within the autonomic nervous system, breathing can be consciously controlled.
- Our ability to consciously work with the breath gives us a way to reduce stress and manage pain.
- Research shows a direct connection between breathing patterns and emotions.

BREATHING AFFECTS EVERYTHING!

Breathing affects your respiratory, cardiovascular, neurological, gastrointestinal, muscular, and psychic systems and also has a general effect on your sleep, your memory, your energy level, and your concentration. Everything you do, the pace you keep, the feelings you have, and the choices you make are influenced by the rhythmic metronome of your breath. â?? Donna Farhi

BREATHING NOURISHES CELLS & OPTIMIZES BODILY FUNCTIONING

Proper breathing nourishes the cells of the body with oxygen and optimizes the functioning of the body on all levels. â?? Dr. Arthur C. Guyton

AN AUTONOMIC FUNCTION THAT CAN BE CONTROLLED AT WILL

Your bodyâ??s breathing center is actually in the brainstem, where many of your autonomic functions are controlled, such as your heart rate, blood pressure, skin temperature, and digestive process.

Breathing is the only autonomic function that you can control at will, kind of like a manual override. Research indicates that when you manually take control of your breathing, you are given a little bit of control over your other autonomic functions as wellâ?¦ Probably the two most important benefits of yoga breathing are its effectiveness in stress reduction and pain managementâ?¦ The most phenomenal aspect of yoga breathing is that you are in control. You can send health-enhancing yoga breathing messages to your body anytime, anywhere. â?? Larry Payne

CONSCIOUSLY CHANGING THE BREATH LEADS TO BIG CHANGES

Your breath is part of a stress or pain response that is the easiest to consciously change. There is no way to consciously block the transmission of a pain signal from one brain cell to another or ask your adrenal glands to stop releasing stress hormones. You can, however, easily learn to slow down or deepen your breathâ?¦ Small changes in your breathing can lead to big changes in how the mind and body function, including lowering stress hormones and reducing your sensitivity to pain. â?? Kelly McGonigal, PhD

STUDY: HOW YOU BREATHE IS HOW YOU FEEL

The two-way connection between how you breathe and how you feel was elegantly demonstrated in a study that observed how the breath naturally changes during joy, anger, sadness, and fearâ?¦ The researchers induced these four emotions in participants and measured the changes in breathingâ?¦ They found that there were characteristic changes for each emotion. In a second study, the researchers turned the observations for each emotion into breathing instructions. They had participants change their breathing according to those instructions, with no hint that the breathing patterns were connected to specific emotions. The study found that the breathing patterns reliably created the emotions they were associated with, without any other emotion cue or trigger. â?? Kelly McGonigal, PhD,

Restricted Breathing

Introduction

Your students may not have a felt-sense of unhindered, natural breathing. Oftentimes, unconscious breathing is not free, but rather is restricted and incomplete. Before attempting to manipulate the breath with *pranayama*, students need experience with the fundamentals, and the first is free and natural breathing.

PERFECT BREATH

Watch any resting animal breathe, and youâ??ll witness the perfect breath: rhythmic, efficient, with the belly expanding and contracting. Young children [also]â?¦ will usually breathe low in their bodies, using their diaphragms. Yetâ?¦ few people sustain that lower-body breath to adulthoodâ?¦ In essence, theyâ??re breathing the way our ancestors did when they were faced with fear, anxiety, or other temporary situations. Unfortunately, weâ??ve transformed these short-term solutions into long-term abnormal breathing patterns. â?? Dr. Belisa Vranich

MANY PEOPLE DONâ??T KNOW HOW TO BREATHE

â??I just realized that I donâ??t really know how to breathe.â?? I hear this often after students encounter their constricted breath during their first experience of yoga. Even with clear instructions, it takes many weeks of practice before some students can actually breathe fully all the way to the bottom of their lungs, and even longer for some to be able to rapidly pump their bellies toward their spines in an energizing exercise like Kapalabhati. â?? Amy Weintraub

BREATHING CORRECTLY IS THE MOST FUNDAMENTAL ASPECT OF HEALTHY LIVING

If I had to limit my advice on healthier living to just one tip, it would be simply to learn how to breathe correctly. â?? Dr. Andrew Weil

Potential Causes for Breathing Issues

Some of the reasons for breathing inefficiently and ineffectively include:

- Excessive sitting
- A hunched posture
- A habit of sucking in the belly
- Tight clothing
- Chronic pressure or stress, and chronic tension in the body
- Excessive hurrying or busyness
- A fall or other injury that caused torso pain
- A bad fright or other stressful event
- Trauma

THE BREATH SHOULD NATURALLY MOVE THE BODY

Our breath should naturally move us, and it did â?? before society trained us to breathe inefficiently. What were we told as we got older? Suck it in and squeeze your belly. We wore tight clothes that restrict breathing. As we get older, many of us unintentionally trained ourselves out of the most efficient and natural method of breathing. â?? Ann Swanson

SHALLOW, QUICK BREATHING IS COMMON & HAS â??TERRIBLEâ?• HEALTH REPERCUSSIONS

We want everything fast: We walk faster than we did ten years ago, we eat faster, we communicate fasterâ?¦ We are under constant pressure to go to sleep quickly and to wake up quickly. And, what happens? Our breathing is constantly in â??fast mode,â?• shallow and quick which in turn has terrible health repercussions. â?? Dr. Belisa Vranich

Effects of Restricted Breathing

Poor breathing can lead to:

- Neck and shoulder pain

- Difficulty in concentration and memory
- Worsening of depression
- Increase in blood pressure and anxiety
- Exacerbation of chronic pain
- Lower energy
- Digestive issues
- Sleep disorders

Constricted Breathing Patterns

Some ways in which the breath may be inhibited include:

1. Reverse / Paradoxical Breathing
2. Chest / Clavicular / Vertical Breathing
3. Periodic / Hypoxic Breathing
4. Catching the Breath
5. Over-Breathing / Hyperventilating
6. Note: Running Out of Breath

Reverse / Paradoxical Breathing

- Some people* are â??reverseâ?• or â??paradoxicalâ?• breathers which means the muscles are used in a contradictory way from the anatomically natural process of breathing.
- The belly doesnâ??t swell on the inhale but rather contracts. And on the exhale, it puffs out (although not likely in a fully relaxed way).
- Breathing paradoxically takes in less air than normal breathing.
- This type of breathing is associated with chronic tension, digestive issues, insomnia, and elevated blood pressure.
- The cause may be related to tight clothing, disease or repeated feelings of fear.

*Mukunda Stiles makes the amazing statement that â??about half the populationâ?• breathes in reverse. (Structural Yoga Therapy 2000 p 49)

Chest / Clavicular / Vertical Breathing

- In this case, the person chronically holds the abdomen in, inhibiting the diaphragm from moving fully which forces the breath to be experienced only up in the chest.
- With chest breathing, the upper body moves more than the mid-body. The shoulders move up and down and the neck may be engaged on the inhale.
- This typically results in chronic tension, digestive issues and anxiety.
- The cause can be stress or holding the stomach in to appear thinner.
- See Yogic Breathing for Leslie Kaminoffâ??s teaching, â??Diaphragmatic Contraction Bulges Belly But Can Also Expand Rib Cageâ?• for the important clarification that an expanding rib cage does not necessarily mean a person is not fully using their diaphragm.

Periodic / Hypoxic Breathing (Breath Holding)

- With this pattern, the person periodically holds the breath for no apparent reason and does not notice she is doing so.
- The periodic breather may yawn or sigh as part of this pattern.
- This may be experienced while working at a computer, working out, or other times throughout the day.
- â??This abnormal pattern is alarmingly common.â?• (Dr. Belisa Vranich)
- The cause can be stress-induced concentration.

Catching The Breath

- During awareness practices, we may notice a â??catchâ?• in the middle of the inhale.
- The cause may be stress and tension.
- â??When tension has been released through mind-body practices, oyu will be able to let go and inhale smoothly. Until then, practice the breathing without dwelling on this catch in your breath. When you are not thinking about it, it will vanish on its own.â?• (Drs. Richard P. Brown & Patricia L. Gerbarg)

Over-Breathing / Hyperventilating

- In this case, the breath rate is too high.
- It may be that the exhale is long and strong and the inhale short and constricted, or the opposite. (Dr. Belisa Vranich)

Note: Running Out of Breath

Another occurrence that isnâ??t exactly a constricted breathing pattern but worth mentioning is running out of breath. If during a breath practice, students find they cannot breathe slowly when trying to follow a breath counting practice, for instance, they can be reassured that with time and practice, they will learn to breathe more slowly and gently.

Drs. Richard P. Brown & Patricia L. Gerbarg explain that novices tend to draw the air in too quickly and that this usually corrects itself over time. They also note, â??Some people want to give and give but have difficulty receiving. As you slow down the inhale, you will be allowing yourself to open up to receive all that the breath has to give you.â?• (The Healing Power of the Breath 2012 p 19)

More From the Experts

THE BREATH & RELEASE OF EMOTIONS

From a session of breath-initiated movement, itâ??s likely that congested emotions will come up and be released from the body. I must emphasize that this work does not create grief, the grief already exists and is stored in the body. Breath-initiated movement is what liberates you from your past. When the grief comes out, something else comes out with it, and this is the most important of all, answers come out with it. New understanding of your past, resolution, reconciliationâ?¦these are the things that emerge from your breath work. â?? Max Strom

WHAT MAKES IT YOGA?

Iâ??d say that without that relationship [between the diaphragm and the breath in yoga class] itâ??s not actually a yoga class. It may be stretching or calisthenics, but what makes it yoga is the conscious integration of movement, mind and breath. â?? Leslie Kaminoff

HELP STUDENTS FEEL THEMSELVES

One of the most important things you can teach is to help your students feel themselves. Bring it into feeling and their bodyâ?¦ Teach them to feel their breath. Teach them to feel their feetâ?¦ Can I coach someone to experience their body more fully via their breath? That is life-changing right there. Thatâ??s where I start every class, whether itâ??s a beginning class or an advanced class. When you start focusing on the breath, you give the mind permission to be quiet. â?? Ana Forrest

HATHA YOGA PRADAPIKA

When the breath is irregular, the mind wavers; when the breath is steady, so is the mind. To attain steadiness, the yogi should restrain his breath. â?? Hatha Yoga Pradapika second chapter translation, B.K.S. Iyengar

BREATH + AWARENESS CAN ENHANCE THE FLOW OF ENERGY

Breath, of course, is lifeâ??without it you die fairly quickly! Breath in many ancient languages meant both life and air: Spiritus in Latin is your spirit and your breath; prana has a similar connotationâ??it is life force as well as breath. Our breath not only brings oxygen into our system (which our cells use to burn their fuels and release energy), but the very act of breathing can also be stimulating. If we combine a slow, steady breath with an awareness of what that breath feels like in a targeted area, we can also enhance the flow of energy to that region. Of course, we donâ??t have lungs all over our body, but we do possess a body-wide fascial network. Each breath stresses that network, and if we are very attentive, we can feel this stress in the targeted area of each posture. â?? Bernie Clark

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