



THE BREATHING CURE

Feeling stressed? Sleepless? Scattered? These five simple breathing techniques can restore your sense of well-being >> *by* JENNIFER MATLACK

◀◀ **IF YOU'RE IN** need of a chill pill, nothing beats meditating. But 90 percent of Americans just don't do it, for lack of interest or time or whatever reason. If you're one of them, you should know there's a stress-reduction alternative that's a lot easier than assuming the lotus position. It's called breathing—and we all do that. *Active* breathing, the process of simply paying attention to your inhalation and exhalation while you're either sitting still or engaged in an activity, elicits the relaxation response, just as meditating does. The relaxation response is the opposite of the stress-induced fight-or-flight response that makes you jittery, says Emma Seppala, PhD, associate director of the Center for Compassion and Altruism Research and Education at Stanford University School of Medicine.

“The physiological effects of mindful breathing are profound and almost immediate,” says Seppala, who coauthored a study on combat veterans with post-traumatic stress disorder (PTSD). In her research, she found that vets who practiced various deep-breathing techniques for 21 hours over a span of one week showed a sharp decrease in several debilitating PTSD symptoms, including anxiety and startle response (an overreaction to sudden stimuli, such as a loud noise). This

reduction in the physiological signs of post-traumatic stress lasted for one year, even in veterans who didn't continue the breath work.

Reducing nervous tension also has a beneficial effect on your health. Becoming calmer quells stress-induced inflammation, which, when unchecked, increases your vulnerability to cardiovascular disease and other illnesses. In fact, recent research has

1 / THE CALMING BREATH

When your body responds to emotional stress, physiological changes can lock you in a tense cycle: Your heart races, your blood pressure increases, and your muscles tighten, among other unhelpful effects. To break that chain reaction and move into a more restful state, alternate breathing through one nostril at a time. Researchers in

that ANB stimulates the hypothalamus to turn on the parasympathetic nervous system, which controls involuntary actions such as the rate at which your heart beats and the widening or narrowing of your blood vessels.

• **TRY IT** Press the fleshy part of your thumb against your right nostril. Exhale and inhale once through your left nostril. Release your thumb and press your index finger on your left nostril. Exhale and inhale once through your right nostril. Repeat for 27 rounds at least three times a day or practice for 20 minutes, ending with a left-nostril exhale. (For a demo, go to more.com/alternatebreathing.) Why 27 rounds? Ancient sages believed that multiples of nine synchronize with body rhythms.

TO FIGHT BOUTS OF FATIGUE—IN THE AFTERNOON, SAY, WHEN YOU NEED TO FEEL REVITALIZED AT THE OFFICE—RAMP UP THE PACE OF YOUR BREATHING.

found that chronic stress wears away the protective ends of your DNA, literally opening you up to illness. The opposite is also true: When you activate the relaxation response—by practicing active breathing or another mind-body discipline—you interrupt the stress cycle and bolster the health of your genes. In a 2013 Norwegian study, participants who practiced three different relaxation modalities (yogic breathing, yoga postures and meditation) experienced a threefold increase in the activity of genes in their immune cells compared with study subjects who relaxed by taking a nature walk.

Here, five active breathing exercises that can provide surprising benefits to your mind and body.

Nepal found that people who performed alternate nostril breathing (ANB, also known as *nadi shodhana*) for just 15 minutes every day for four weeks significantly increased activity in the parasympathetic nervous system, which triggers the relaxation response. In the study, alternate nostril breathers decreased pulse and respiratory rate as well as diastolic blood pressure, the number that shows how much pressure is in the arteries between heartbeats. The technique has a twofold benefit for people with hypertension: According to a 2013 study in India, ANB triggers a drop in blood pressure while increasing the breather's coordination. The exact mechanism isn't clear, but experts speculate

2 / THE MEMORY-BOOSTING BREATH

If you can't recall where you parked the car or left your cell phone, breathing through just your left nostril may help, say Indian researchers. Adults ages 20 to 45 who practiced this breathing technique had a 16 percent boost in spatial memory, which is key for navigating complex areas such as parking lots and remembering spatial relations between objects (psst: Your phone is in the kitchen between the coffee maker and knife block). "When you inhale through your left nostril, you activate nerve endings toward the back of the nose that stimulate the parasympathetic" CONTINUED ON PAGE 114

» MEDITATE WHILE MOVING

If you want to relax but hate to sit still, the solution may be breathwalking, a kind of walking meditation in which leg stride is synched with breathing. "It's an active form of relaxing that boosts calmness and clarity," says Jim Nicolai, MD, author of *Integrative Wellness Rules: A Simple Guide to Healthy Living* and former medical director of the Integrative Wellness

Program at Miraval Resort and Spa in Tucson, Arizona. When you sit and meditate, there's nothing to distract you from your internal chatter, Nicolai says. But when you breathwalk, your focus is directed outward as you try to match your inhales and exhales to the pace of walking. "It's a quick way to quiet the mind and access the meditative state," says Nicolai, who suggests practicing

the exercise daily for five to 10 minutes.

To start, walk at a comfortable pace, then take one slow, deep breath to the count of four. Each count of the inhale will match one of four leg strides. When you reach the end of the inhalation, i.e., the end of the fourth stride, begin to exhale, again counting to four. "Once you practice and get into a groove, each 'step' in your breath will link

together and blend harmoniously, creating a wavelike pattern of rises and falls for each step you take," says Nicolai. When you've mastered this, you can stay engaged by counting differently. For example, inhale to four, but exhale to eight. Or combine the technique with running, hiking, cycling or swimming; as Nicolai points out, you can choose any activity that has a rhythmic nature.

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system,” explains study author Shirley Telles, PhD, head of the Indian Council of Medical Research Center for Advanced Research in Yoga and Neurophysiology in Bangalore, India. Left-nostril breathing appears to put you in a state of mind that’s both restful and alert, Telles speculates.

» **TRY IT** Gently press the fleshy side of your thumb against your right nostril. Inhale and exhale through your left nostril 27 times. Repeat up to four times a day.

3 / THE BRAIN-DEFOGGING BREATH

There’s a faster way to sharpen your mind than going to Starbucks for a caffeine fix. In a 2012 study, Telles found that men who breathed through the right nostril entered a state conducive to being attentive. In a real-world setting, right-nostril breathing may improve alertness during long-distance driving or enhance concentration when you’re juggling multiple tasks. However, Telles warns that the technique slightly increases blood pressure by activating the sympathetic nervous system, which constricts blood vessels. “It should be used with care if you’re borderline hypertensive and avoided completely if you have hypertension,” she explains. The mechanism responsible for the brain boost: Nerve fibers at the back of the right nostril activate parts of the hypothalamus and other brain areas that control attention.

» **TRY IT** Press the fleshy part of your thumb against your left nostril. Inhale and exhale through your right nostril 27 times. Repeat up to four times a day.

4 / THE ENERGIZING BREATH

To fight bouts of fatigue—in the afternoon, say, when you need to feel revitalized at the office, or in the evening when you’d rather curl up on the couch than go out and socialize—ramp up the pace of your breathing. Short, fast rhythmic breaths increase energy and provide a quick pick-me-up, says Seppala. This

technique is known as the bellows breath, or *bhastrika*. Sit in a comfortable position and place your hands on your abdomen. Inhale forcefully through your nose, expanding your belly (the reverse of what usually happens when you breathe). Then exhale forcefully, contracting your belly. Continue to alternate inhales and exhales of equal duration. Keep your shoulders, head and neck relatively still while you’re breathing. The result of this practice? You feel as if you’ve just participated in a rousing bout of exercise. Studies using electroencephalography to measure brain activity have found that bellows breathing stimulates the central nervous system, causing an increase in energy that’s followed by a feeling of calmness—much like the effects of a brisk walk.

» **TRY IT** Practice three rounds, 15 to 20 complete breaths per round. To watch a video of this technique, go to more.com/bellowsbreath.

5 / THE SLEEP-INDUCING BREATH

It’s 2 AM and you’re wide awake, staring at the bedroom ceiling. To combat insomnia, do your best imitation of Darth Vader’s deep and slightly noisy breathing. Known as *ujjayi*, this technique mimics the way we breathe during sleep. “It’s the breath of rest,” says Seppala, who has used the practice (among others) to successfully treat returning combat veterans for sleep disorders associated with PTSD. Seppala speculates that *ujjayi* affects the parasympathetic nervous system, probably by activating the vagus nerve, which runs from the brain stem through the neck and into the abdomen. “The vagus nerve links breathing with heart rate and many different functions throughout the body,” she says.

» **TRY IT** Close your mouth and inhale through your nose. Exhaling via your nose, constrict the back of your throat to make a hushing or ocean sound. Take no more than 10 full breaths, as more may energize you and keep you awake. For a demonstration, go to more.com/vaderbreath. *