

# LOOK & FEEL GREAT LOOK & FEEL GREAT

● One out of five people don't breathe correctly—and don't know it. They often feel tense, anxious, shaky, lightheaded—and don't know why. BY MAURA RHODES

## for less stress—breathe right

It's another very busy day. You've got so much to do, and you don't know how you're going to manage. Suddenly you feel out of sorts. Your hands shake, your heart pounds, you feel lightheaded and anxious. Is a cold coming on? The flu! The last thing you need now, you think, is to get sick.

Chances are, however, you're not ill. You're probably feeling the way you do because you're breathing incorrectly—without even knowing it—in response to a stress-filled day. "We react to stressful situations the same way animals respond to danger: by unconsciously taking quick, shallow breaths," says Kenneth Greenspan, M.D., director of the Center for Stress and Pain-Related Disorders in New York City. "Unfortunately, breathing this way can cause a variety of unpleasant symptoms."

Rapid, shallow breathing—which is medically known as hyperventilation—reduces the blood's carbon dioxide content, leading to a number of chemical reactions. Although most people think of carbon dioxide as just a waste product of the breathing process, it keeps the blood's pH (acid-alkaline levels) in healthy balance. "But when breathing is rapid, carbon dioxide is exhaled before it can do its job, and so blood and other body fluids become too alkaline," explains Robert Fried, Ph.D., director of the Stress and Biofeedback Clinic at the Institute for Rational-Emotive Therapy in New York City and author of *The Hyperventilation Syndrome* (Johns Hopkins University Press, 1987).

Various adverse reactions follow that contribute to feelings of anxiety. Because the pH balance controls the flow of calcium into body tissues, a fluctuation can cause too much calcium to rush into muscles and nerves, heightening their sensitivity and making you tense, nervous and shaky. Eventually your fingers and toes may feel tingly and cold. And although it isn't clearly understood why, heart palpitations can occur.

Also for reasons still unknown, when carbon dioxide levels drop too low, blood vessels throughout the body—and especially in the brain—constrict. Thus, shallow breathing can reduce oxygen to the brain by as much as 20 percent, causing lightheadedness, dizziness and headache. In the long run a decrease in oxygen to the brain can alter its ability to produce neurotransmitters (the brain's chemical messengers), speeding up the loss of brain cells—and therefore brain efficiency—that occurs naturally with age, says Dr. Fried. Thus, a lifetime of moderate, unconscious hyperventilation can cause some people's brains to age prematurely.

### A vicious cycle

Dr. Fried estimates that at least 25 percent of the population are chronic hyperventilators, probably due to the following cycle: Stress triggers hyperventilation which over time weakens breathing muscles (the diaphragm and abdominals) so that they can't function properly. When you inhale correctly, the diaphragm, which is sandwiched between the lungs and abdomen, contracts downward so that the lungs have ample room in which to expand. When you exhale, the abdominal muscles push the diaphragm up against the lungs to help push air out. When you inhale deeply and completely, the diaphragm and abdominal muscles work to maximum capacity, getting the exercise required to stay healthy

and strong. But when breathing is constantly shallow these muscles weaken, losing the strength needed to accommodate deep, full breaths—making it more and more difficult over time to resume healthy breathing. Says Dr. Greenspan: "If you breathe abnormally on a regular basis, it's likely you will experience the associated symptoms even when there's no obvious trigger." Thus chronic shallow breathers may feel tense, anxious, jittery, and lightheaded even on calm days.

Other factors also contribute to hyperventilation. For example, during pregnancy or the second half of the menstrual cycle, hormonal changes can accelerate breathing. (Hyperventilation is almost invariably associated with premenstrual syndrome [PMS].) Because progesterone rises at these times, and the hormone makes blood more acidic, says Dr. Fried, the body compensates by hyperventilating to normalize body fluids.

### A relaxing remedy

Whatever is causing you to breathe improperly, developing a healthier breathing technique is the key to feeling better. A simple test will help determine if you're a quick, shallow breather. If so, practice the easy three-part Self-Calming Exercise below. You may also find the exercise helpful whenever you're faced with a high-pressure situation, you're stuck in a traffic jam or your day starts to get out of hand. ●

## Steps to healthy breathing

### The breath test

Count the number of breaths you take in one minute. If it's more than 14 you're breathing too fast. Next, place one hand on your stomach and the other on your chest. If you're breathing properly, the hand on your stomach should move outward when you inhale; the chest hand should remain still. If the opposite happens, you're not breathing right.

### Self-calming exercise

Do the exercise at right a few times each day—and whenever you're feeling stressed. (Should you feel dizzy or develop abdominal cramps, stop immediately. Also, if you're recovering from any recent surgery or muscle injury, check with your physician before trying this exercise.)

