

Lower blood pressure a few deep breaths away

Hypertension is very common and a significant risk factor for two leading causes of death, heart attack and stroke. It can be effectively treated by lifelong medications, but might there be a simpler and less expensive way to treat mild to moderate high blood pressure. The answer could be as simple as taking a deep breath.

Essential hypertension is commonly defined as a systolic blood pressure consistently over 140 and a diastolic blood pressure consistently over 90 — without an identifiable cause.

An estimated 50 million Americans have high blood pressure, and each year, 2 million new cases of hypertension are diagnosed. The costs for managing high blood pressure are in the billions of dollars every year.

In addition, people with high blood pressure may not take their medications as prescribed because of side effects.

There are a number of non-pharmacologic therapies that can lower blood pressure. Weight loss, stress reduction, salt restriction, regular exercise, biofeedback and even regular meditation have been shown to significantly reduce high blood pressure.

Specific breathing techniques also may reduce high blood pressure. Many of these breathing techniques have been used in meditation as well as martial art training for thousands of years. These breathing techniques were believed to increase lung capacity, enhance cardiac and circulatory function, reduce stress and promote an overall relaxed state of being.

In recent research from Brazil, published in the Archives of Brazilian Cardiology, participants with essential hypertension were able to significantly reduce both systolic and diastolic blood pressure



Patrick B. Massey, M.D.
Alternative approach

by practicing specific breathing techniques daily for a month. These breathing exercises focused on breathing more slowly and deeply.

In this study, blood pressure

dropped from an average of 135/99 to 124/81. In addition, total lung capacity also increased. This was the first study to show that practicing breathing exercises, over time, can reduce high blood pressure.

Meditation, regular exercise and other stress reducing techniques all focus on deep, rhythmic breathing. From my own experiences in the martial arts, I knew that slow, deep breathing patterns (**qigong**) could lower blood pressure. Several years ago, I conducted a small clinical trial with the cardiac rehabilitation program at Alexian Brothers Medical Center in Elk Grove Village. I was able to demonstrate that the daily practice of **qigong** breathing could dramatically lower blood pressure. How-



Taking slow, deep breaths daily may help lower blood pressure, a study shows.

ever, the clinical trial was too small to publish.

Deep breathing exercises affect a number of metabolic processes in the body including improving the sensitivity of the baroreflex — a blood pressure gauge in the carotid arteries and aorta. In those with hypertension, this blood pressure gauge may overshoot, causing the increase in blood pressure.

Another mechanism may be that deep breathing reduces

blood pressure by reducing stress hormones.

Someone once said that the only thing you have control over is how you react to a situation. So relax, practice a few slow, deep breathes every day and take control over your blood pressure.

• *Patrick B. Massey, M.D., Ph.D., is medical director for alternative and complementary medicine for Alexian Brothers Hospital Network.*