



Strengthen & Protect Your **HEART**

By Dr. David Williams

Topics in This Report

HALT HEART DISEASE	1
Use the Right Breathing Technique	2
Treat Yourself to a Massage	6
Stop Smoking	8
Reduce Stress	11
<i>Five Steps to Dissolving Stress</i>	12
WIPE OUT ANGINA	14
Stop the Pain Within 14 Days	15
TURN OFF ARRHYTHMIA	17
Support Healthy Rhythms With an Inexpensive Nutrient	17
Good Dietary Sources of Magnesium	17
Ease Arrhythmia With a Special Massage	18

Strengthen and Protect Your **HEART**



It's no secret that many aspects of today's society can have a negative impact on your cardiovascular system. For example, a poor diet, high stress levels, and lack of physical activity can weaken your heart, setting the stage for various cardiac-related problems to develop. Fortunately, there are inexpensive, easy-to-use therapies that can help address these factors. These therapies are also very effective at strengthening and repairing your heart. In fact, as you will soon discover, they can even be used to address existing heart conditions.

HALT HEART DISEASE

I want to start off by sharing a few simple therapies that have been shown to strengthen and protect your heart muscle and blood vessels. The best news is that these techniques not only provide overall cardiovascular support but they are equally effective even after a cardiac event and can actually help address various heart conditions.



USE THE RIGHT BREATHING TECHNIQUE

One of the easiest ways you can naturally support overall cardiovascular health is through proper breathing. The breathing habits you develop over a lifetime directly influence the health of your heart and blood vessels.

Eastern cultures place great significance on breathing techniques; Western cultures, conversely, put very little emphasis on breathing. This is unfortunate, because proper breathing lowers heart rate, blood pressure, and cardiac output; increases blood oxygen levels; promotes clearer thinking; and relieves stress. It even helps prevent heart attacks.

Once you understand the physical link between the heart and lungs, it's easy to see how breathing can accomplish these things. Blood, which is low in oxygen and high in carbon dioxide, travels through the veins to the right chamber of the heart. From there it

is pumped into the lungs to be replenished with oxygen and then returned to the left side of the heart, which pumps it back out into the body. Every breath, cough, sneeze, sigh, and gasp causes an immediate change in heart function. While we can't consciously control most of these processes, the breathing part is very much in our control.

The Hidden Dangers of Shallow Breathing

Relax for a moment and analyze your breathing. As you inhale, do you relax your stomach muscles and allow your belly to expand outward and to the sides? You should.

When you're breathing properly, your diaphragm should push downward far enough that your belly is pushed outward. If your belly remains in and your chest expands instead, you're "shallow breathing." Shallow breathing is also referred to as thoracic breathing because the lungs are filled not so much from movement of the diaphragm, but from movement of the chest or thoracic cage. It is a mild form of hyperventilation. From a physiological viewpoint, here's what happens during shallow breathing:



- Your heart rate and cardiac output increase.
- Your arteries don't benefit from the falling and rising pressure changes between breaths.
- Your breathing rate becomes more rapid in an attempt to expel all of the "stale" air.
- Your blood is less oxygenated, which changes your blood's pH and results in a constriction of the blood vessels. This chronic constriction eventually leads to a narrowing of the arteries and an increased frequency of heart palpitations and chest pains or angina.

Shallow breathing is common in the elderly and those under a lot of stress. Interestingly, it is also common in heart attack patients. In the early 1980s, a doctor at a Minneapolis/St. Paul hospital evaluated the breathing patterns of 153 heart attack patients and found that every single one was a shallow breather.

Dr. David Anderson at the National Institute on Aging in Baltimore has found that poor breathing habits may also contribute to hypertension. He evaluated the effects of shallow breathing on several patients with normal blood pressure. After 30 minutes, the volume of urine being passed decreased, as did the volume of sodium and potassium. The increased sodium retention resulted in higher blood plasma volume and increased blood pressure. (*Psychosom Med* 95;57(4):373–380)

The Benefits of Diaphragmatic Breathing

When you breathe correctly, your heart rate will accelerate when you inhale and decelerate when you exhale. This small change in your heart rate results in a very smooth and consistent rise and fall of blood pressure. This slight pulsating pressure gently massages and flushes the walls of your blood vessels, helping them to stay supple.

To experience these benefits, you must do diaphragmatic breathing. Try inhaling by letting your belly relax more and more as the air flows into your lungs. Notice how the tightness leaves your chest and how much more relaxed your breathing becomes. Also, make sure you're not unconsciously holding your breath from time to time. This can be more common than you think. It can easily happen during stressful moments at work or while watching television or a movie. With practice, your resting breathing rate should drop to a more relaxed six or seven breaths per minute.



Diaphragmatic breathing has many benefits, especially when it comes to blood pressure. Many cases of “essential hypertension”—where no underlying cause can be found—can be corrected through breathing and relaxation. Practitioners of yoga believe the movement of the diaphragm is instrumental in keeping many internal organs healthy. Certain yoga positions are designed so movements of the diaphragm massage and stimulate blood flow to the underlying organs.

“Training” Yourself to Breathe Through Your Diaphragm

1. Lie down on your bed or the floor.
2. Take a fairly heavy book (a large phone book works well) and place it on your abdomen just below your navel.
3. Breathe through your nose, inhaling so that you raise the book. When you exhale the book should lower.
4. Continue practicing until this breathing pattern becomes natural.

Although this is exactly the way we breathe during sleep—by inflating and deflating our lower abdomen—for some reason our breathing becomes more labored and inefficient during our waking hours. We seem to shift everything up to our chest area and breathe more shallowly.

It may take a little practice to improve your breathing habits, but it would be time well spent. Next time you're stuck in traffic, watching television, stirring something on the stove, or just trying to relax, concentrate on your breathing. As your stomach muscles relax, feel your diaphragm descend and your entire lungs fill. Then, as you slowly exhale and empty your lungs, let the sound “ahhhhhhhhh” naturally come out. It really does feel great!



TREAT YOURSELF TO A MASSAGE

If you had more money than you knew what to do with, there's one luxury you could get immense pleasure from and at the same time improve your health and energy level—a massage. The list of health benefits massage provides is practically endless. When it comes to your heart, massage is beneficial because it improves circulation throughout the body.

Anything that helps circulation also helps ease the burden of your heart. Blood exits the heart under enormous pressure. As it travels through increasingly smaller arteries, it begins to slow down. Small blockages may even cause it to stop in places. Eventually, the blood reaches veins where it is returned to the heart. As we get older, blood moves less efficiently through areas like the hands, legs, and feet. This can lead to common complaints like pain, tingling, numbness, cramping, weakness, swelling, and varicose veins. Massage is a gentle, effective way to give your blood the extra shove it needs to

get back to the heart. It also allows fresh blood loaded with oxygen to reach the areas that need it.

While most of us don't have the time or money to invest in a massage every week, the good news is there are ways you can do massage at home.

How to Get the Max Out of a Massage

First, you should check with your doctor to make sure massage is a safe and effective option, especially if you have health problems that might be aggravated by massage. Contagious skin disease, fragile capillaries, high blood pressure, heart disease, leg ulcers, sores that don't heal, and a tendency to bruise easily all fall into this category. If you have phlebitis or varicose veins, massage is not recommended.

The best place for a massage is on a massage table (between 24–30 inches high, 28–30 inches wide, and about 6 feet long). If you don't have one, you can use a bed. I don't recommend the floor since the person giving the massage could end up in worse shape than he/she started.

1. While lying on the stomach, place a small pillow under the ankles and another pillow or two under the chest. This will allow the head to hang straight and help relax the calf muscles. While lying on the back, place a small pillow under the knees and neck areas.
2. Start slow and easy. Listen to the person you massage. Applying too much or too little pressure can ruin an otherwise great experience.
3. If certain areas are sore or tense, work on these areas first.
4. Always massage toward the heart. Remember, you always want to push blood and fluids toward the heart to ease its workload and improve circulation.



STOP SMOKING

Most people think of lung cancer when they consider the dangers of smoking. But smoking also wreaks total havoc on your cardiovascular system. It also depletes practically every known protective vitamin and mineral your body needs.

More specifically, the nicotine in cigarettes constricts blood vessels, which raises blood pressure, and it increases the fats that circulate in your blood (like cholesterol). Cigarette smoke also contains carbon monoxide, which decreases the blood's ability to carry oxygen and forces the heart to work harder. Those who quit smoking can often drop blood pressure levels 5–10 points. Dropping both cigarettes and coffee may drop it as much as 15–20 points!

Psychologists from both Duke University and the University of Vermont have found that the first cup of coffee in the morning increases both heart rate and blood pressure. Surprisingly, they found

there is little, if any, tolerance for caffeine from one cup to the next. In other words, each additional cup of coffee continues to increase heart rate and blood pressure. A second cup increased the heart rate five beats and blood pressure five mmHG.

Cigarette smoking is now being shown as an underlying cause of another heart condition, cardiomyopathy. This illness weakens the heart's pumping power and often results in heart failure. A study of young men by Dr. Arthur Hartz, of the Medical College of Wisconsin, found that cardiomyopathy was three times as common among smokers as nonsmokers. Other research has shown that deaths of smokers from heart attack (not heart failure) are two to three times as common as nonsmoker deaths.

Kicking the Habit

Many people trying to quit smoking turn to nicotine gum. The gum may be less offensive, but from a health standpoint there are a couple of things to consider. First, if the gum chewing goes on indefinitely, in reality it's simply trading one addiction for another. Second, the gum has some negative effects on the cardiovascular system. The nicotine it contains causes an acceleration of the heart rate, peripheral blood vessel constriction, and an increase in blood pressure. By itself, this might not be a problem. But when you combine it with a mentally or physically stressful situation, the risk of a heart attack increases. (*Cardiovasc Res* 88;22(2):154–158)



Fortunately, research suggests there are other methods that can help kick the habit—all of which are safe and effective. Researchers at the University of Iowa analyzed 600 studies involving almost 72,000 smokers. The average success rate for all methods was 19 percent.

The highest success rate—36 percent —involved severe heart disease patients who were told they must quit immediately. (The threat of imminent death apparently provided a strong incentive.) Next was



REDUCE STRESS

hypnosis combined with relaxation and taped suggestions, which resulted in a success rate of 30 percent. Smoke aversion, where smokers have their own smoke blown back into their faces, achieved a success rate of 25 percent, followed by acupuncture at 24 percent. Nicotine gum came in at 10 percent, while sheer willpower accounted for 6 percent. Practically no one stopped smoking simply because their doctor told them it was bad for their health. (*J Appl Psychol* 92;77(4):554–561)

Let's face it; statistics alone don't usually motivate people to ban the butts. While the methods described above may make the change easier for some people, ultimately, studies continue to show that a smoker's true desire to quit determines success. For this reason, I can't recommend a single procedure that will work 100 percent of the time for everyone.

Lastly, while I certainly hope you will heed my advice and quit smoking, if you just aren't ready yet, I recommend taking niacin (vitamin B3). I would also recommend taking niacin if you opt to use nicotine gum to help you quit. Niacin can lessen some of the adverse effects of nicotine because it helps open up blood vessels.

By now, we all know stress is a health risk, particularly for the heart and cardiovascular system. Animal research has shown that the adrenal hormones triggered by stress raise cholesterol levels and accelerate clogging of arteries. Countless studies have also linked long-term stress to high blood pressure, and chest pain and irregular heart rhythms (arrhythmia) are not uncommon.

To effectively dissolve stress, you must first figure out what's causing it. In some cases, this is obvious; other times you need to play detective to pinpoint the source of your stress. Once you've determined the problem area, there are usually some fairly direct solutions.

If you can't learn to deal with irritating situations through activities like vacations, meditation, exercising, listening to music, or your hobbies, you may need to change your lifestyle and, in some cases, your job. Little opportunity for advancement, no control over your future, and job insecurity have all been directly linked to both high blood pressure and cardiovascular disease. (*Am J Epidemiol* 05;161(5):434–441)

The good news is that relaxation methods like yoga and biofeedback have been shown to lower blood pressure in

practically everyone—provided they're used on a regular basis. If you're unfamiliar with biofeedback, there's a very easy and inexpensive way to enjoy its benefits. Rather than spend a fortune on equipment and training, you can purchase what's called a pulse monitor from most sporting goods stores. It's a small device that slips over the tip of your index finger and shows a continuous readout of your pulse rate. By observing exactly what situations raise your pulse rate, you can pinpoint areas of stress. Then, you can focus on lowering the pulse rate during the stressful times, and you'll have an excellent way to gauge different relaxation techniques.

Pets can help lower stress and blood pressure. Thousands of animals across the country in shelters are waiting for a good home. There are some other simple methods you can use to dissolve the stress in your life.

5 STEPS to Dissolving Stress

Every evening, just before you go to sleep, take a few minutes to come to grips with unresolved stress and conflicts that have surfaced during the day. Developing this habit will result in inner strength and better health. There are many ways to do this, so feel free to modify the steps below to suit your needs. The best thing is these techniques won't cost you a thing and save a few minutes of your time.

1. As you lie in bed, re-live the events of the day. If there were instances where you expressed anger, bitterness, hatred, or other negative feelings (verbal or mental), visualize the situation and picture yourself handling it in a positive manner. After several weeks, you'll begin to realize you can handle real-life situations more positively. By "transforming" negative attitudes and feelings, only positive, constructive thoughts will flourish in your mind.

2. As you begin to re-examine how you react to others, you'll likely need to work on forgiveness. Regardless of how guilty you feel for past actions, you must forgive yourself and move on, knowing you are making changes and becoming healthier as a result of past experiences. Forgiving others begins with truth. Recognize that you've been hurt, experience the sadness, and above all relate this (honestly, without bitterness) to the person who hurt you. Being totally honest is the only way to allow forgiveness and start the healing process. Unresolved hurt grows like a cancer that can destroy you, both physically and mentally. This isn't about "letting someone off the hook," it's about letting yourself off the hook.

3. Give thanks for all the wonderful things in your life. If you can't think of anything, it's because it's easier to feel sorry for yourself than look for positives. If nothing else, you should feel positive to be going through this process to improve your life.

4. After a few minutes of working through the above suggestions, it's time to relax and get rid of the physical stress that has accumulated throughout the day. This method is one that's particularly effective and easy to learn.

Lie flat on your back with a pillow to support your neck and head and with your hands at your sides. Beginning with your toes, tense the muscles, then allow them to relax completely. Do the same to your feet, lower legs, thighs, etc., until you finish with the neck and head area. Don't leave an area until it is totally relaxed. With practice, relaxing will become easier, and you may be able to use a quicker technique. Don't be surprised if you fall asleep the first several times.



5. Once you have mastered relaxation and can stay awake, it's time to try some visualization and positive input procedures. Imagery or visualization is used in cancer treatment. Patients are taught to visualize their natural cancer-killing cells attacking and destroying the tumor. The same technique can be used to help dissolve stress.

Imagine your entire body encompassed by a bright white light. Next, picture yourself as you would like to be. For example, you might see yourself as happy, healthy, and enjoying a walk on a beautiful spring morning. It is fine to picture others with you, just make sure you don't visualize yourself controlling them or their actions. Try to imagine the input you'd be receiving from your other senses—what you'd see, smell, hear, taste, and feel. The more detailed you are, the more powerful a tool visualization will be.

Visualization may seem strange, but we all use it every day in the form of imagination and day dreaming. With a little effort and practice, you can make it work wonders for your heart and overall well-being.



In case you aren't familiar with the condition, angina is basically the pain and other symptoms experienced when there is a temporary disruption of blood flow to the heart muscle. More often than not, this condition is due to clogging in the small coronary arteries that supply the heart muscle. Although angina is not a heart attack, it is a strong warning signal that steps must be taken to improve your cardiovascular system before you do have a heart attack.



Research has shown that a 14-day program of taking high doses of zinc can help correct the problem. The discovery that short periods of high-dose zinc could stop several angina problems was incidental to research by George Eby, who studied using zinc lozenges to treat the common cold. In one seven-day study of the effect of zinc on cold symptoms, a 65-year-old man with severe angina in addition to a cold reported that, after five days of taking nearly 300 mg of zinc gluconate daily, his angina pain had vanished for the first time in 15 years.

Additional clinical work was done using 180 mg of supplemental zinc daily with patients suffering from angina. At least 50 to 60 people were successfully treated in this manner, but unfortunately the clinical records are no longer available. In practically every case, if the patients stopped smoking and made some dietary changes (cut out refined carbohydrates and consumed less fat), they responded favorably to this form of treatment. (*Med Hypotheses* 06;66(1):169–172)

Unfortunately there hasn't been a lot of follow-up work on the effects of zinc on angina to determine exactly how it works. From the various reports and details of Eby's and others' observations, a short period of high-dose zinc appears to have somewhat of a cleansing effect on arteries rather than simply increasing blood flow through dilation.

We do know that zinc's antioxidant properties can prevent oxidation of LDL cholesterol, which is one of the mechanisms of clogging of the arteries. High doses of zinc also reduce inflammation, another contributor to artery plaques and clogging. And some researchers

feel that a short period of high-dose zinc releases or “flushes” LDL cholesterol from cardiovascular tissues, which, in turn, improves circulation and helps restore cardiac function. Because of its artery-cleansing properties, high-dose zinc also appears to be an effective way to prevent cardiac events.

Putting the Program to Work

Most people don’t need to take 300 mg a day like the gentleman I mentioned above. In fact, for most people, taking 60 mg of zinc three times daily is all that’s necessary. (Eby felt that the only time a 300 mg daily dosage might be needed would be in individuals weighing 300 pounds or more.) Also, based on Eby’s clinical observations, many people needed only four, five, or six days of high-dose zinc therapy and not the full two weeks.

In a nutshell, the research suggests that 180 mg of zinc should be taken daily in divided doses (60 mg with each meal). The best forms of zinc are the ones that are more biologically available. These include zinc gluconate, chloride, acetate, glycinate, histidinate, or sulfate. The high dose can be discontinued as soon as the angina stops, which is generally within the first seven days. The maximum period for taking the high-dose zinc would be 14 days.

Obviously underlying problems led to the angina in the first place, and those need to be corrected as well. Consumption of refined carbohydrates, high animal fat intake, smoking, lack of exercise, and vitamin/mineral deficiencies all need to be dealt with to achieve the best effects. Eby and others feel that many of the problems that can be corrected through the use of zinc stem from deficiencies in that mineral caused by the consumption of refined grains, which tend to deplete minerals in the body. As such, refined grain products (particularly white flour) should be replaced with whole grain products, nuts, and seeds.

Turn Off ARRHYTHMIA

The term “arrhythmia” refers to an irregular heart rhythm. Arrhythmias vary in severity from the fairly benign and treatable atrial fibrillation, to often deadly abnormalities in the ventricles. Arrhythmias prevent the heart from pumping blood properly and can deprive the brain of oxygen and cause it to shut down. While not all arrhythmias are fatal, they are cause for concern.

SUPPORT HEALTHY RHYTHMS WITH AN INEXPENSIVE NUTRIENT

Magnesium is one of the most critical and overlooked nutrients for the heart and circulatory system. It increases the oxygen-carrying capacity of the blood, inhibits platelet clotting, and promotes overall cardiovascular health. Magnesium also supports healthy heart rhythm.

You can get magnesium through your diet (see the box below for good sources). However, I recommend you also take it in supplement form to ensure you are getting the therapeutic doses necessary for optimal health. While the current RDA for magnesium is around 400 mg, more realistic dosages are in the 500–1,500 mg range. I recommend supplementing with at least 300–500 mg of magnesium each day.



GOOD DIETARY SOURCES OF MAGNESIUM

Almonds	Figs
Apples	Grains
Bananas	Nuts & Seeds
Corn	Wheat Germ

Another way to get extra magnesium is through infusions. Although the benefits of magnesium sulfate infusions have been well known for years, they still haven't become standard treatment. Perhaps it's because they are so inexpensive, simple, and cost effective. Magnesium infusions are only available through physicians or hospitals, so if you would like to give them a try, talk to your doctor.



EASE ARRHYTHMIA WITH A SPECIAL MESSAGE

As I explained earlier, massage is a simple and effective way to support overall heart health. There is also a special type of massage that can help ease arrhythmia. It is a simple technique involving the oculocardiac reflex. This reflex has been used for centuries by skilled massage therapists and those trained in the martial arts. But it's simple enough for anyone to do.

The various rectus muscles that move your eyeball have a close association with your 10th cranial nerve (the vagus nerve). If you stimulate these rectus muscles of the eye, in a roundabout way you end up stimulating the vagus nerve as well. When the vagus nerve is stimulated, it slows your heart rate.

The next time you feel your heart begin to race, close your eyes and use your finger tips to lightly compress and massage around each eyeball. This should quickly begin to slow your heart rate. All of us have instinctively used this technique at one time or another. For instance, children and many adults routinely rub their eyes when they get sleepy.

Research has shown that by rubbing the eyes and eliciting the oculocardiac reflex, the heart rate will slow down 5–13 beats a minute. In some individuals the reflex is exaggerated and the heart will slow as much as 50 beats a minute. The slowing of the heart and level of relaxation also seem to be greater when the massage is performed by someone else. Have someone do it for you and you'll see what I mean.

* * *

As you can see, there are many simple, low- or no-cost ways to support your heart. In most cases these techniques are also effective at repairing any existing damage. Remember, using these techniques can also safely and naturally eliminate many of the underlying risk factors associated with poor cardiovascular health, which can help ensure your heart remains healthy and strong for years to come.



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