

### **HEART HEALTH** | EMOTIONS

# Anger Can Harm Your Heart

Everyone gets angry sometimes, but you've probably noticed that some people lose their tempers more often or at higher degrees of intensity.

People who get angry a lot and do so at levels where they slam doors, pound tables, throw things or hurt others are far more likely to experience heart disease than those who are able to express their anger constructively and lose their temper less often. Equally at risk are people who suppress rage and find no way to let it out in a healthy manner.

Research into anger has discovered that those who have existing heart disease are more likely to die from heart problems if they have high rates of hostility and anger. Another study found that middle-aged people who experience intense and frequent anger but have normal blood pressure, were nearly twice as likely to experience coronary artery disease and three times as likely to have a heart attack than those who had low anger levels.

#### PHYSICAL EFFECTS OF ANGER

How does anger affect the heart? According to HeartSense in India, anger can:

• Reduce the strength of heart contractions.

• Increase heart rate.



• Increase blood pressure. But it goes beyond that. According to Harvard researchers, if your body has an excess of the stress hormones that get released when you go into high anger mode, fatty plaque can build up in the arteries and speed the process of atherosclerosis. Anger can cause heart rhythm issues by disrupting the electrical impulses of the heart.

#### TRAIT ANGER

The way people handle anger may be genetic. Scientists refer to "trait anger" as a measure of how a person expresses anger — either in rages or in milder forms. People with high trait anger typically have higher cholesterol and triglycerides in their blood stream. High trait anger has been linked to high blood pressure.

It's important to understand the different types and levels of anger. Not all anger is bad for the heart. Researchers have found that constructive anger, as compared to destructive anger, can actually reduce your stress, help you relax and calm you down. It's the healing effect of blowing off steam.

It's the destructive anger that is a problem. In one small study, people who experienced severe anger were 8.5 times more likely to have a heart attack within two hours.

A Canadian study found out something surprising about the link between anger and heart attack. When someone exercises while angry, they are more likely to have a heart attack, regardless of any other risk factor. Exercise and being angry works together to increase blood pressure while also reducing the amount of blood that goes to the heart muscle.

So if you find yourself in an intense state of ire, choose something relaxing such as a walk instead of a run. Don't do anything strenuous.

#### GETTING IT UNDER CONTROL

Experts say that anger management can help contribute to a healthier heart. Counseling and anger management classes are two options when the problem is severe. However, there are also simpler steps that you can teach yourself, steps such as counting to 10, walking away from a situation and training yourself to counter angry thoughts with coping statements.

Doing so will not only contribute to a healthier heart, but it will likely improve the relations you have with others in your life.

## Rehab Can Restore Your Health

Surviving a heart attack doesn't end with a discharge from the hospital. You'll need to make life changes to prevent another event.

One program that has proven benefits is cardiac rehab, though the American Heart Association says fewer than 20% of the people who qualify participate.

Cardiac rehab puts a whole team of professionals on your side if you've experienced a heart attack, heart failure, heart disease or had heart surgery. All of them will work with you as part of cardiac rehab, a medically supervised program designed to prevent future health problems.

In order to get cardiac rehab, you have to get a referral from your doctor — and that may mean that you'll need to ask for it. It is available for people of any age.

#### RISKS

While most cardiac patients benefit from rehab, not everyone can do it. When deciding on whether to refer you to a program, your medical team will review your medical history, evaluate your health, perform tests and conduct a physical exam.

On rare occasions, people can suffer strained muscles or sprains. The medical team will teach each person how to



exercise to lower the risk of these injuries.

#### WHAT HAPPENS IN REHAB?

The American Heart Association identifies three components to cardiac rehab, each of them important to the success of your rehabilitation:

• Exercise: Your cardiac rehab team will provide you with exercise counseling and training so you know how to move your body in ways that get your heart pumping and promote heart health.

• Education: Your risk factors are personalized to you and cardiac rehab will provide customized education that addresses your specific needs, lifestyle and choices.

• Stress-reduction counseling: Cardiac rehab will help you handle stresses that can hurt your heart.

The length and content of a

cardiac rehab program is going to vary based on your needs, but generally speaking, they last 12 weeks with approximately 36 sessions.

Rehab begins with an evaluation. You and the medical team will discuss your limitations and what you need to achieve better health. The team then creates a program to help you succeed.

Exercises might include walking on a treadmill, riding

a stationery bike, using a rowing machine or jogging on a track.

Typically a nurse or technician will monitor you to make sure you do not experience any negative symptoms. They'll also evaluate when you can work harder and longer and when you can add strength training. They will track your heart rate, blood pressure and EKG.

Education includes developing plans for healthy eating, exercising, maintaining a healthy weight and quitting smoking. It might also include education on how to manage any conditions that contributed to your cardiac event, such as diabetes, obesity, high cholesterol or high blood pressure. The educational component will afford you the opportunity to ask questions about your medication, what activities you can do or anything you have concerns about.

Adjusting to life with a serious health problem can cause anxiety, depression and other mental issues. You may get cut off from friends or your workplace while you recover. That's why social and mental support is part of cardiac rehab. It may also involve making arrangements for occupational or vocational therapy if you will need to change jobs because of your condition.

People who participate in cardiac rehab lower their risk for a future cardiac event, eat better, lose weight, are able to return to work and be able to engage in daily activities they might have missed.

### **HEART HEALTH** | DETECTION & TREATMENT

# Heart Defects

There is little news more frightening to new parents than to be told their newborn has a congenital heart defect.

However, as medical technology has advanced, more children are surviving and thriving with these most common of all birth defects.

A congenital heart defect (CHD) is anything that affects the structure of a baby's heart and its functioning. They range from mild to severe. A mild form might be a hole in the heart while a more severe CHD occurs when parts of the heart are missing or deformed.

According to the Centers for Disease Control and Prevention, about 25% of babies born with heart defects have a critical CHD in which surgery or other procedures are needed in the first year of life.

The most common types, according to the National Library of Medicine's MedlinePlus, are:

• Septal defects: Commonly known as a hole in the heart, these are openings in the wall between the left and right sides of the heart.

• Heart valve defects: The valves don't properly control the flow of blood through the heart.

• Defects in large blood vessels.



#### **DISCOVERING A CHD**

There are many different types of CHDs and each of them have different symptoms and severities. Some of them may not have any signs or symptoms. Others can show up in the form of blue-tinted nails or lips, a baby having fast or troubled breathing, tiredness when feeding, heart murmurs and unusual sleepiness.

Some CHDs are detected during pregnancy while others aren't discovered until birth or later in life.

During a pregnancy, a fetal echocardiogram, which is a type of ultrasound that produces pictures of the baby's heart, can be used to diagnose some CHDs. After a baby is born, doctors check for CHDs during the first few days after birth. They will clip a pulse oximeter to the baby's hands or feet to measure blood oxygen. Other tests include a physical exam, heart tests and genetic testing.

#### TREATMENTS

Treatments vary widely depending on the severity and type of defect. Some newborns end up having multiple surgeries to repair the heart or blood vessels. Another treatment is cardiac catheterization in which a catheter is threaded through blood vessels to take measurements, pictures, tests and repairs.

Some people with CHDs will take medicine throughout their life to protect their heart.

#### CAUSES

Researchers are still figuring out what causes CHDs. Some are genetic, some may be the result of environmental factors. Some environmental factors may include the mother's diet, health conditions or medication use during pregnancy. Diabetes and obesity have been linked to a baby's heart defects. Smoking is also a factor.

#### EFFECTS

CHDs can have effects on children throughout their lifetime. They might be smaller than other children and have delays in mental and emotional growth. Children with CHDs might develop speech and language problems or be diagnosed with attention deficit hyperactivity disorders.

They are also at greater risk for endocarditis, arrhythmia, heart failure, pulmonary hypertension, kidney disease and liver disease.

### HEART HEALTH | DIET

# Sensible & Healthy Eating

It seems that everywhere you turn there is a different diet touted as being the solution to obesity and healthier living. Some people recommend low-carb diets; others suggest low-fat diets. Then there are countless fad diets of dubious value.

How do you sort through all the recommendations? The U.S. News & World Report in 2021 ranked 39 diets in several categories. Tied for first in the categories of heart-healthy benefits and best diets for healthy eating was the DASH diet developed by researchers from the National Heart, Lung and Blood Institute (NHLBI), which is part of the U.S. National Institutes of Health. The diet also came in second for "best diet overall."

It isn't a new diet. Developed more than 20 years ago, it's undergone rigorous study and research. DASH stands for Dietary Approaches to Stop Hypertension.

Repeated testing of the diet has found that it helps to reduce blood pressure and LDL cholesterol, which are two risk factors for heart disease. Adults on the DASH diet are able to lower their blood pressure within weeks. If the diet-



ers also reduce their sodium intake, they have even greater reductions in blood pressure.

#### WHAT YOU DO AND DO NOT EAT

In the DASH diet, the goal is to build nutrient-dense meals

made up of whole grains, lowfat dairy products, vegetables, fruits, fish, poultry, beans, nuts and healthy oils. It limits the intake of fatty meats, full-fat dairy, sugar-sweetened beverages, sweets and sodium.

The diet is based on 2,000

calories a day. Daily portions include:

• Grains, 6-8 servings.

• Meats, poultry, and fish, 6 or less.

- Vegetables, 4-5 servings.
- Fruit, 4-5 servings.
- Low-fat or fat free dairy

products, 2-3 servings.

5 or less a week.

• Fats and oils, 2-3 servings.

• Sodium, 2,300 mg. It recommends limiting servings of nuts, seeds, dry beans and peas to four to five servings a week and sweets to

#### **SERVING SIZES**

The diet is designed to include food that is commonly found in grocery stories so that it is easy to follow. How much a person should eat depends on their age, gender and activity level. The more active you are, the more calories you need to consume. The older you are, the fewer calories you need. Generally speaking, men need more calories than women.

The National Heart, Lung and Blood Institute have charts on their website that show how many servings each person should have based on how many calories they per day.

#### **STAYING ON THE DIET**

Everyone has days where they slip up or "cheat." The NIH offers several hints for how to stay on track with the DASH diet:

• Examine what caused you to get off track.

• Take a long-term view, don't worry about a minor slip-up.

• Don't try to change too much at a time.

• Take baby steps. Break anything complex into simple, easy-to-follow steps.

• Write it down. Use a worksheet to track what you eat and drink.

• Celebrate success — but not with food.

### Pets Contribute to Healthy Lifestyles

Dogs earn their moniker of "best friend" in a lot of ways, including helping their owners have healthier hearts.

The American Heart Association says that owning a pet, especially dogs, contribute to better heart health. In a scientific report published in 2013, scientists explored the effects that pet ownership, primarily dogs or cats, had on cardiovascular disease. The beneficial effects included "increased physical activity, favorable lipid profiles, lower systemic blood pressure, improved autonomic tone, diminished sympathetic responses to stress and improved survival after an acute coronary syndrome.

#### **GREATER ACTIVITY**

Many people who have pets are more active because they have to walk the animal and move more to take care of it. One study revealed that people who walk dogs get up to 30 minutes more exercise a day than non-walkers. That's exercise that contributes directly to a healthy heart.

The AHA recommends engaging in healthy activities with your pet including cooling off in sprinklers, swimming with your dog in a lake, walking and running together, playing at a dog park, spending 10



eople who have pets to

to 15 minutes a day playing catch or fetch and walking home with kids and dogs after school.

#### **CUDDLE TIME**

Did you know that even cuddling your dog or cat can make your heart healthier? A Japanese study found that pet owners had a 300% increase in the release of oxytocin just by staring in their pets' eyes. And the dogs experienced a 130% rise.

Why is this good? Oxytocin affects the free radical and

inflammation levels of the heart, two culprits that cause heart attacks. When there is too much inflammation, it leads to a build up of arterial plaque that causes heart attacks. So when you cuddle with your pet, you release the hormone that helps fight heart disease.

#### **STRESS RESPONSE**

Other studies have shown that people respond better to stress when they live with a companion animal.

In one study, people who had pets had a significantly

lower resting baseline heart rate and blood pressure. When stress was applied, they had significantly smaller increases in heart rate and blood pressure and recovered to normal after the stress more quickly.

The fastest recovery and lowest reaction took place in people when their pet was present.

#### **SOCIAL SUPPORT**

In addition to the physical benefits, pets provide emotional and social support that contribute to healthier hearts. The © ADOBE STOCK

American Heart Association found that pet ownership was a powerful predictor of maintaining behavior change.

In other words, pets help encourage good behavior and make people more motivated to engage in healthy habits. They can reduce the anxiety and depression which create barriers to healthy behaviors.

While there are many factors that go into adopting a pet and one shouldn't do it just to have a healthy heart, pets can make your life better and longer.

### **HEART HEALTH** | AWARENESS

# Signs of a Heart Attack

Since the start of the COVID-19 pandemic, people's chances of dying from heart attacks have doubled. It's why it is more important than ever to be aware of the signs of a heart attack and know when you should seek help.

While one in five heart attacks are "silent," others have symptoms that alert you to get help immediately. The sooner you get help after a heart attack, the more likely you are to survive.

According to the U.S. Department of Health and Human Services, the most common signs of a heart attack are:

• Chest pains, usually in the center or left side of the chest; there is a feeling of pressure, squeezing or fullness.

• Upper body pain or discomfort; this usually happens in the arms, back, shoulders, neck, jaw or upper stomach above the belly button.

• Shortness of breath or trouble breathing — either while resting or while active.

• Nausea and vomiting.

• Heartburn or stomach ache.

• Feeling dizzy, lightheaded or fatigued.

• Breaking out in a cold sweat.



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Many of those symptoms are signs of other things, which is why it is important to know your family history and your risk for heart disease. Sometimes the symptoms of a heart attack show up without prior notice. Other times they may creep up on you, developing over hours, days or even weeks before the heart attack happens.

While a sudden onset of several of those symptoms

should send you to the emergency room, you may want to call your doctor even if you are just feeling unusually tired for several days or if you have a sudden onset of pain or trouble breathing. It's also good to talk to your doctor if you have an existing health issue that has worsened.

Not all heart attacks are the same. Even if you have had a heart attack in the past, know that a new heart attack may not act the same. You may have different symptoms That's why it is always good to talk to your doctor when something changes.

#### SILENT HEART ATTACKS

While silent heart attacks are defined by not having major symptoms, there are minor ones that are worth paying attention to. These might include discomfort in your jaw, arms, or chest that go away after resting, getting easily tired or having shortness of breath.

#### RESPONDING TO SYMPTOMS

If you have any of these symptoms, or witness someone who does, call 911. Acting fast can save a life. An ambulance is your best option because the EMTs can start treatment right away and you will be seen more quickly once you arrive in the emergency room.

### **HEART HEALTH** | STAYING ACTIVE

# Dangers of Being Sedentary

There are many reasons that the rate of heart disease is climbing and one thing that may put you at greater risk than ever before is sitting.

John Hopkins refers to it as the "sitting disease," the fact that people are far more sedentary than ever before and this lack of activity increases the risk of heart disease. The body is designed to stand upright and the heart and cardiovascular system work more efficiently when you do.

#### HOW MUCH MORE SEDENTARY ARE WE?

Sedentary jobs are 83% more common now than they were in 1950, according to the American Heart Association. In 1960, about half of all jobs were considered physically active. Now those jobs make up less than 20% of the U.S. work force.

#### EXERCISE IS ONLY PART OF THE SOLUTION

Even people who exercise daily can still be at risk if they spend a lot of time sitting while they commute to and from work or the rest of the day when they aren't exercising.

One thing John Hopkins researchers discovered was that even people committed to fitness fell into the sedentary category. They'd work out for



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30 minutes a day, but then sit the rest of the day. This can still cause problems.

John Hopkins reported on a review of studies in a 2015 edition of the Annals of Internal Medicine which found that "even after adjusting for physical activity, sitting for long periods was associated with worse health outcomes including heart disease. ... Sedentary behavior can also increase your risk of dying, either from heart disease or other medical problems."

The threshold level appears to be 10 hours of sitting. While doing a lot of exercise at some point during the day reduces your heart attack risk, once you start sitting for 10 hours or more, your risk goes up significantly.

#### WHY SITTING IS HARMFUL

Why does this happen?

Moving muscles aid digestion. When you are sitting, you are more likely to retain the fats and sugar you eat as fat in your body. Sitting for long periods causes metabolic syndrome, which includes obesity, high blood pressure, high blood triglycerides, low levels of HDL cholesterol and insulin resistance.

How risky is all the sitting we do at our desks, in our cars or on our couches? One study discovered that men who watch more than 23 hours of television a week are 64% more likely to die from heart disease than those who only watch 11 hours a week.

Overall, experts say that people who sit a lot are 147% more likely to suffer a heart attack or stroke.

Researchers recommend 60 to 75 minutes a day of moderate activity to counteract the dangers of sitting too much.