



**LISTENING to YOUR**



**HEART MATTERS!**

# One important organ...

The work the heart does inside your body is nothing short of amazing, pumping oxygen-rich blood to every tissue, cell and organ and filtering back the spent oxygen-poor blood. Cardiovascular disease, or heart disease, does a number on the heart's ability to do its work.

A lot of factors can raise your risk of heart disease. Some of these factors are out of your control, like your gender, age and family history of the disease. But there are actions you can take to improve the health of your heart and lower your risk of disease. If you already have heart disease, there are treatment options and steps you can take to help your heart and make the quality of your life better.

That's what this book aims to do. Lifestyle changes are in your future. These changes will make your heart a healthier organ. And they might just save your life. Isn't that really the heart of the matter?

**Special thanks to Dr. Sharon Cresci, for her insightful and educational contributions to this book.**

## **DISCLAIMER.**

This book provides general information about heart disease and related nutrition, exercise and health issues. This information does not constitute medical advice and is not intended to be used as a solitary reference on the subject matter, for the diagnosis or treatment of a health problem, or as a substitute for consulting a licensed health care professional. Consult with a qualified physician or health care practitioner to discuss specific individual issues or health needs, and to professionally address personal, emotional, health, physical or medical concerns. You should consult a qualified medical professional before beginning any exercise program.



# LISTENING TO YOUR HEART MATTERS!

CARDIOVASCULAR DISEASE & YOU

# TABLE OF CONTENTS



**THUMP, THUMP:**  
The Heart and How It Works



**CODE RED:**  
Heart Hazards and Warning Signs



**RUNNING THE RISK:**  
Risk Factors for Heart Disease



**GOOD EATS FOR GOOD BEATS:**  
Nutrition and the Heart



**RISKING THE RUN:**  
Heart Disease and Exercise



**CHECK THIS OUT:**  
Cardiac Diagnostic Tests



**OKAY, HERE'S THE PLAN...:**  
Treating Coronary Artery Disease



**THEY'VE GOT THE BEAT:**  
Women and Heart Disease



**HEARTS ON THE MOVE:**  
Traveling with Heart Disease



**TRIALS AND FIBRILLATIONS:**  
Your Emotional Well-Being



**NOTES  
RESOURCES**



# THUMP, THUMP

## THE HEART AND HOW IT WORKS

### MEET THE HEART

Make a fist. That's about the same size as your heart. Your heart is a muscle that pumps blood through the body. It beats about 100,000 times each day. During a lifetime, the heart does the most physical work of any muscle. It's an amazing organ and the engine of the body's circulatory system. Without a working heart inside your chest, you haven't a chance of making it through your day.

So let's start off by getting up close and personal with this amazing blood pumping piston.

#### LEFT ATRIUM (TOP CHAMBER):

Collects blood as it returns from the lungs.

#### RIGHT ATRIUM (TOP CHAMBER):

Collects blood as it returns from the body.

#### RIGHT VENTRICLE (LOWER CHAMBER):

Pumps the blood to the lungs.

#### SEPTUM:

The wall of muscle that divides the left and right sides of the heart.





## LEFT VENTRICLE (LOWER CHAMBER):

Pumps the blood to the body.

**VALVES:** Four flaps that separate the chambers. They open and close to let blood flow in or out:

### TRICUSPID VALVE

between the right atrium and the right ventricle

### PULMONARY VALVE

between the right ventricle and the pulmonary artery

### MITRAL VALVE

between the left atrium and the left ventricle

### AORTIC VALVE

between the left ventricle and the aorta



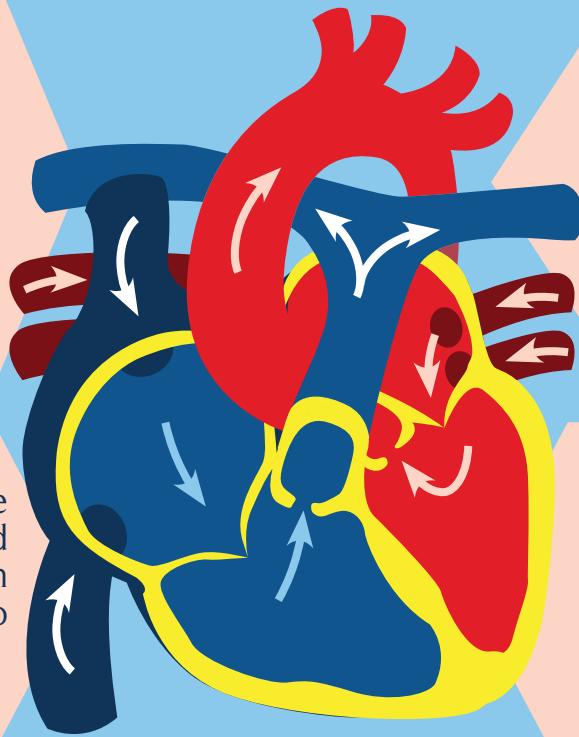
**VEINS** The body has a clever way of transporting all this blood to and from the heart. The blood vessels that return blood to the heart are called **veins**. This blood has delivered oxygen to the body and is returning for more. **Arteries** are blood vessels that carry blood *away from the heart*. They carry blood rich in oxygen to the muscles and organs all over the body. There are two exceptions to this rule:

- 1 The **pulmonary artery** carries blood away from the heart (from the right ventricle) to the lungs. It carries the blood without oxygen.
- 2 The **pulmonary vein** carries blood *to the heart* (from the lungs and to the left atrium). It carries oxygen-rich blood.

Sometimes it's simpler to understand problems that occur if you know what happens as blood is pumped throughout the body. Here's the lowdown:

Blood returns to the heart through veins and empties into the right atrium. There it's pumped into the right ventricle. This blood is dark because it has delivered its oxygen to the tissues.

The right ventricle of the heart pumps the blood to the lungs through the pulmonary artery to pick up oxygen.



The blood returns to the heart through the pulmonary veins. It's now bright red, because it's rich in oxygen.

The left ventricle of the heart pumps the blood out into the **aorta**, to the rest of the body. That's why the left side of the heart is bigger and the muscle is thicker.

# THE CIRCULATORY SYSTEM

The tiny veins and arteries make up a network that carries blood throughout the body. This is called the **circulatory system**. It includes the **heart, lungs, veins, arteries, arterioles** (small arteries) and **capillaries** (tiny blood vessels). These blood vessels carry oxygen- and nutrient-rich blood to all parts of the body. Small veins carry oxygen-poor blood back to the heart and lungs. If all these vessels were laid end-to-end, they'd extend about 60,000 miles. That's enough to go around the earth more than two times.

The heart pumps the blood with oxygen to all the tissues and organs in the body. Even the heart itself needs this oxygen-rich blood to operate. The blood also picks up waste products from the body's cells. These are removed as they're filtered through the kidneys, liver and lungs.



Circulation! It's going around!

## FIVE FANTASTIC HEART FACTS

1

The average adult heart beats 72 times a minute. That's 100,000 times a day; 3,600,000 times a year; and 2.5 billion times during a lifetime.

2

A healthy heart can pump 2,000 gallons of blood through 60,000 miles of blood vessels each day.

3

Every day the heart makes enough energy to drive a truck 20 miles.

4

The “thump-thump” of a heartbeat is the sound made by the four valves of the heart closing.

5

A woman's heart beats faster than a man's. The heart of an average man beats about 70 times a minute. The average woman's heart rate is 78 beats per minute.

CHECK IT OUT! 

HeartSite.com: Heart Basics 101

[heartsite.com/html/the\\_heart.html](http://heartsite.com/html/the_heart.html)



# CODE RED

## HEART HAZARDS AND WARNING SIGNS

### MISSION: DEFINITION

**CARDIOVASCULAR** (car-dee-oh-VAS-cue-ler)  
Relating to the circulatory system, which is made up of the heart and blood vessels.

## GOOD NEWS/BAD NEWS

### THE BAD NEWS

Cardiovascular disease (illness that affects the heart and its circulation) is still the main cause of death in the world today for both men and women.

### THE GOOD NEWS

Over the last two decades, death rates from heart disease have gone down in many wealthy countries.

### THE BAD NEWS

In poorer nations, cardiovascular deaths and disease have gone up dramatically during this same time span.

### THE GOOD NEWS

Preventing heart disease later in life starts in childhood and keeps going. Healthy eating, exercising and not smoking can lower the risk of heart disease.

## HEART DISEASE RISK FACTORS

Inactivity

Obesity

High Blood Pressure

Cigarette Smoking

High Cholesterol

Diabetes





# THE MANY FORMS OF HEART DISEASE

There are many forms of heart disease to know about. Each one of these has its own set of warning signs and symptoms you should know.

## CORONARY ARTERY DISEASE (CAD)

### WHAT IT IS

Coronary artery disease is the most common type of heart disease. It occurs when the small blood vessels that carry blood and oxygen to the heart become narrow. It's caused by the buildup of plaque in the arteries to your heart. Also known as hardening of the arteries, blood flow into the heart can slow down or even stop.

### WHAT IT DOES

This blockage can lead to angina, heart attack and death. Coronary artery disease is the leading cause of death for both men and women in the US.

### WHAT TO DO ABOUT IT

Medicines that treat high blood pressure, diabetes and high cholesterol may be prescribed. Follow your doctor's advice and your coronary artery disease may not get any worse. Treatment will depend on how severe the case is. Surgeries and procedures such as these can improve your heart's fitness level:

- ♥ Angioplasty and stent placement
- ♥ Coronary artery bypass surgery
- ♥ Minimally invasive heart surgery

## ANGINA (an-JI-nuh)

### WHAT IT IS

When the heart doesn't get enough blood and oxygen, a pain that comes and goes can happen in the chest. This is angina. This pain and discomfort is a symptom of coronary artery disease. It happens when the vessels that carry blood to the heart become narrow and blocked. It's often brought on by physical stress. Other factors like emotional stress, extreme cold or heat, heavy meals, alcohol and smoking can also trigger angina.

### WHAT IT DOES

Angina can feel like a squeezing, pressing discomfort in the middle of the chest. Sometimes the pressure can be felt in the shoulders, arms, neck or jaw. At times it may feel like indigestion.

### WHAT TO DO ABOUT IT

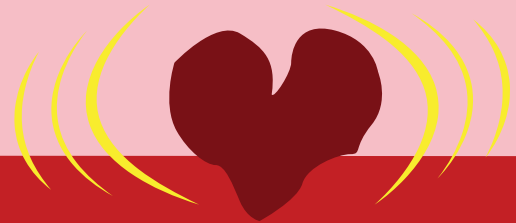
Angina often goes away within a few minutes by resting or taking nitroglycerin. If it comes on more quickly, happens more often or lasts longer, tell your doctor. Changes in your angina may mean that a heart artery is not stable and you may need treatment.



## MISSION: DEFINITION

**Nitroglycerin (ni-tro-GLISS-er-in)**

A medicine used for the treatment of angina, congestive heart failure and myocardial infarction, as well as a blood pressure controller.



## HEART ATTACK

### WHAT IT IS

A heart attack occurs when the blood flow to part of the heart is suddenly cut off. The chest pain is often stronger than angina. It lasts longer and doesn't go away with rest or nitroglycerin.

### WHAT IT DOES

A heart attack causes lasting damage to the heart muscle.

### WHAT TO DO ABOUT IT

If you're having any of these warning signs lasting more than a few minutes:

- ♥ **Call 911**
- ♥ Don't drive yourself to the hospital unless there is absolutely no other option
- ♥ Talk to your doctor about taking nitroglycerin and aspirin
- ♥ If you're uncertain whether or not your symptoms are from a heart attack, it's always better to be safe. Call your doctor
- ♥ If you can't reach your doctor right away, call 911

## TIP-OFF

### Warning Signs of a Heart Attack

- ♥ Sudden chest pain or pressure that lasts for longer than a few minutes or worsens. This may be felt as discomfort, heaviness or pain. May also be felt in the back, jaw, throat, arm or below the breastbone
- ♥ Feeling as if a belt is being tightened around your chest
- ♥ Pain that spreads from the middle of the chest to your arms, shoulders, neck or jaw
- ♥ Sweating
- ♥ Feeling sick to your stomach
- ♥ Dizziness
- ♥ Shortness of breath
- ♥ A fullness, indigestion or choking feeling that may feel like heartburn
- ♥ Rapid or irregular heart beats
- ♥ Extreme weakness, anxiety

# PERIPHERAL VASCULAR DISEASE (PVD)

## WHAT IT IS

Peripheral vascular disease affects the blood vessels leading to the legs and feet.

## WHAT IT DOES






The vessels become narrowed and hardened by build-up of plaque that decreases blood flow. Poor blood flow can cause pain and eventually injure tissues and nerves.

## WHAT TO DO ABOUT IT

See your health care provider or go to the emergency room if you're having symptoms of PVD. While these symptoms aren't often cause for emergency, they shouldn't be ignored. Medical attention and a treatment plan can keep further damage from happening to the heart and blood vessels. It may also put off later heart attacks, strokes and the loss of toes and feet. Don't try to wait it out at home if you're having these symptoms.

## Symptoms of PVD

Symptoms are almost always caused by leg muscles not getting enough blood. There can be symptoms in one or both legs, though the intensity is often different in each. Symptoms will depend partly on which artery is affected and how badly the blood flow is restricted.

-  Leg pain: occurs with strain and is relieved by rest
-  Muscle pain in calves, thighs or feet
-  Numbness or cold sensation in legs and feet
-  Pale or blue color of the legs
-  Weak or absent pulse in the limbs



# CAROTID ARTERY DISEASE

## WHAT IT IS

The carotid arteries supply your brain with blood. Carotid artery disease happens when these major arteries become blocked or narrowed by plaque. This is a serious health problem because it can cause a stroke.

## WHAT IT DOES

Over time, cholesterol and fatty substances can build up and make the carotid artery narrow. When less blood can flow through to the brain, there's a greater risk of a stroke. If this lack of blood flow to the brain lasts for more than three to six hours, this damage can last forever.

## WHAT TO DO ABOUT IT

A doctor will recommend lifestyle changes and taking medicine as prescribed. A procedure to improve blood flow could help prevent strokes in the future. These lifestyle changes can treat carotid artery disease:

- ♥ Stop smoking
- ♥ Control high blood pressure
- ♥ Control diabetes
- ♥ Have regular checkups with your doctor
- ♥ Have your doctor check your cholesterol
- ♥ Eat foods low in saturated fats, trans fats, cholesterol and salt
- ♥ Stay at a healthy weight
- ♥ Exercise at least 30 minutes most days
- ♥ Limit alcohol to 1 drink per day for women, 2 for men

## Risk Factors for Carotid Artery Disease

Like other forms of heart disease, the risk factors are:

- ♥ Age
- ♥ Smoking
- ♥ Hypertension (high blood pressure)
- ♥ Abnormal lipids or high cholesterol
- ♥ Diet high in saturated fats
- ♥ Insulin resistance
- ♥ Diabetes
- ♥ Obesity
- ♥ Inactive lifestyle
- ♥ Family history of heart disease

# STROKE

## WHAT IT IS

A stroke is caused when the blood supply to the brain is interrupted. Brain cells die quickly if they don't receive nutrients and oxygen from blood.

## WHAT IT DOES

This lack of blood to the brain results in sudden numbness or weakness, often on one side of the body. One side of the face may droop. Sudden trouble with vision and difficulty with talking and walking may occur. Dizziness or a headache can also happen during a stroke.

## WHAT TO DO ABOUT IT

Call 911. Get medical attention right away. Don't drive yourself to the emergency room.

### TRANSIENT ISCHEMIC ATTACK

### TIA: "MINISTROKE"

A TIA is caused by a temporary restriction of blood to the brain. The symptoms of a TIA are similar to those of a stroke but they work themselves out. A TIA may be a warning sign for a more serious stroke.

## HEART HEALTH BY THE NUMBERS

795,000

Average number of people in the US who suffer strokes each year.

610,000

Average number of these that are first time or new strokes.

185,000

Average number of people who survive a stroke and go on to have another.

Source: [cdc.gov/stroke/facts.htm](https://www.cdc.gov/stroke/facts.htm)



# ARRHYTHMIA

## WHAT IT IS

This is a heartbeat that isn't regular. The heart is controlled by an electrical system so that the four chambers of the heart contract in a certain coordinated way.

There are three types of arrhythmias:

**Heartbeat is too fast.**    **Heartbeat is too slow.**    **Heartbeat is disturbed and irregular.**



## WHAT IT DOES

Arrhythmia may cause a sensation of irregular or fast heartbeats. These are called palpitations. There are many types of arrhythmia. Some may cause low heart output or low blood pressure that can be accompanied by lightheadedness or sudden loss of consciousness or passing out.

## WHAT TO DO ABOUT IT

Most arrhythmias are harmless, some aren't. The outlook for a person with an arrhythmia depends on the type and how severe it is. Even serious arrhythmias can be treated with good results. Most people with arrhythmias can live normal, healthy lives.

# HEART FAILURE

## WHAT IT IS

This health issue is also called **congestive heart failure**. It may occur when the damaged heart muscle is too weak to pump the right amount of blood through the body. It also can happen when the heart valves are not working the right way or when the heart muscle is overly thickened and doesn't work well.

## WHAT IT DOES

Symptoms of heart failure are weight gain, swelling of the feet, ankles and abdomen, and a shortness of breath during exercise. If heart failure is more severe, this shortness of breath can happen while resting. It may be hard to lie down or sleep. You may feel your pulse race or become irregular.

## WHAT TO DO ABOUT IT

Shortness of breath with mild levels of strain or while lying down may be the first signs of a serious condition with a weakened heart muscle. Seek medical help right away. Treating congestive heart failure includes changing to a healthier lifestyle and taking medication. In severe cases, a heart transplant may be needed.

## CHECK IT OUT!

**eMedicine Health: Peripheral Vascular Disease**  
[emedicinehealth.com/peripheral\\_vascular\\_disease/article\\_em.htm](http://emedicinehealth.com/peripheral_vascular_disease/article_em.htm)

**WebMD: Carotid Artery Disease: Causes, Symptoms, Tests, and Treatment**  
[webmd.com/heart-disease/carotid-artery-disease-causes-symptoms-tests-and-treatment](http://webmd.com/heart-disease/carotid-artery-disease-causes-symptoms-tests-and-treatment)

**National Stroke Association**  
[stroke.org](http://stroke.org)

**MedicineNet.com: Congestive Heart Failure**  
[medicinenet.com/congestive\\_heart\\_failure/article.htm](http://medicinenet.com/congestive_heart_failure/article.htm)

## MAKE A CHANGE FOR BETTER HEALTH

Living a healthy lifestyle can help lower the risks for heart disease. For the sake of your health and your life, make a commitment to follow these plans:

- ♥ Don't smoke or use tobacco
- ♥ Exercise at least 30 minutes a day for at least five days each week
- ♥ Stay at a healthy weight
- ♥ Get checked and treated for depression
- ♥ Women at risk for heart disease should take omega-3 fatty acid supplements
- ♥ Limit alcohol
- ♥ Eat nutritious foods



# RUNNING THE RISK

## RISK FACTORS FOR HEART DISEASE

### YOU BET YOUR LIFESTYLE

Risk factors that you can do something about by changing your lifestyle habits:

**Risk Factors** are lifestyle habits or traits within one's genes that may make it more likely for you to develop heart disease. The more risk factors you have, the higher the chance of getting heart disease.

#### HIGH BLOOD PRESSURE:

When you have high blood pressure, your heart has to work extra hard to pump the blood through your arteries. If this happens for some time, the inside walls of the arteries can be damaged. High blood pressure often has no symptoms, which is why it is called "the silent killer."

#### TOBACCO USE:

Smoking dramatically raises your risk for heart disease, lung disease and cancer. It damages your artery walls, causing plaque to build up. If that weren't bad enough, it also cuts blood flow to your heart and brain. Chewing tobacco can cause the same kind of damage. The most important thing you can do for your health is to **quit smoking or using tobacco.**

#### OBESITY:

Being overweight puts extra strain on your heart. Extra weight can also raise your blood pressure and bad cholesterol. The more overweight you are, the bigger the risk. Losing even a few pounds will lower your risk for health problems.

#### HIGH CHOLESTEROL:

Cholesterol is a soft fatty substance that builds up in the arteries and limits blood flow to your heart or brain. High cholesterol raises your risk for heart disease.

#### DIABETES:

Diabetes is one of the greatest risk factors for heart disease. Your body needs sugar for fuel. For people with diabetes, their bodies can't use the sugar the right way. Extra sugar in the bloodstream can damage the inside walls of the arteries. If not treated, it can raise the risk for a heart attack or stroke.



## INACTIVE LIFESTYLE:

Your heart is a muscle and it needs exercise to stay strong. By lowering your blood pressure and cholesterol levels, exercise will lower your risk of heart disease. Staying active can help keep your blood sugars under control, and it can help handle your weight and stress level.

## STRESS:

Stress can cause a rise in your blood pressure and heart rate, which can make your heart disease worse. Feeling stressed can also lead to symptoms of depression. It's not possible to remove all stress, but it is possible to learn better ways to cope with stress.

## Risk factors that are out of your control:

### FAMILY HISTORY OF HEART DISEASE:

♥ Heart disease diagnosed before age 55 in father or brother

♥ Heart disease diagnosed before age 65 in mother or sister

**AGE:** ♥ The risk for men increases after age 45

♥ The risk for women increases after age 55

**GENDER:** ♥ Men have an increased risk of developing heart disease

♥ Women have an increased risk of developing heart disease after menopause

**RACE:** ♥ African Americans are more likely to have high blood pressure

♥ Due to higher rates of obesity and high blood pressure, native Hawaiians, American Indians and Mexican Americans may be at a higher risk of heart disease

## CHECK IT OUT!

National Heart,  
Lung and Blood Institute:  
What Are The Risk Factors  
for Heart Disease?  
[nhlbi.nih.gov/health/  
educational/hearttruth/  
lower-risk/risk-factors.htm](http://nhlbi.nih.gov/health/educational/hearttruth/lower-risk/risk-factors.htm)



# GOOD EATS FOR GOOD BEATS

## NUTRITION AND THE HEART

### TWIGS AND BERRIES: ALL YOU CAN EAT

To eat for a healthy heart, you should only have twigs, berries and the occasional sassafras shoots. Okay. That's not very realistic. But it's important to know that a heart-healthy diet is just a balanced way of eating to safeguard against cardiovascular problems. This diet with the heart in mind can help lessen the risk of stroke, heart disease and high blood pressure.

The key to healthy eating is variety, balance and moderation. Variety is important because there is no one perfect food that contains everything you need in a healthy diet. Enjoying a variety of foods will help you get all the vitamins and minerals you need.

#### A healthy eating plan includes:

- ♥ Eating more fruits, vegetables and whole grains
- ♥ Using low fat or non-fat milk products
- ♥ Choosing lean meats, poultry, beans, fish, eggs and nuts
- ♥ Reducing saturated fats, trans fats and cholesterol
- ♥ Choosing the healthier **monounsaturated** and **polyunsaturated** fats
- ♥ Limiting your intake of salt and added sugars
- ♥ Eating regular meals



### WARNING:

If you take certain medications, you should stay away from eating certain foods. These may cause the drugs to not work as well or cause serious side effects. For example, if you take certain cholesterol-lowering drugs or certain drugs that treat high blood pressure, you should never drink grapefruit juice. Grapefruit juice doesn't play well with an enzyme in the intestine that's responsible for breaking down many drugs. **Ask your doctor if there are any foods you should not have because of the medications you're taking.**

### MISSION:DEFINITION

#### Antioxidant (an-tie-OCK-sid-ent):


A substance that lowers the damage to the body due to oxygen. Well-known antioxidants include enzymes, vitamin C, vitamin E, and beta carotene. These can repair the damaging effects of oxidation.

# BRING ON THE FRUITS AND VEGGIES

Why fruits and vegetables? How about because they're low in calories, high in fiber and have many vitamins, minerals and antioxidants that are good for your heart? Oh, and they also taste good.









## You should...

-  Aim for a total of **nine servings per day** or two cups of fruit and two and a half cups of vegetables a day
-  Try to have a variety of fruits and vegetables
-  Look for a colorful selection including dark green and orange
-  Know that beans and peas such as black beans, split peas and lentils count for a vegetable serving
-  Use a combination of fresh, frozen and low-salt canned foods

The goal of nine servings of fruits and vegetables is just that, a goal. Start from wherever you're at today. If you now eat only two servings a day, work your way up to four.

## Try these ideas for eating more fruits and vegetables:

-  Add berries to your morning cereal or pancakes
-  Add chopped vegetables to your omelet
-  Pack some carrot sticks with low fat dressing for an afternoon snack
-  Take along a piece of fresh fruit to eat on your way home
-  Throw a fruit cup into your lunch bag for dessert
-  Try a new fruit or vegetable once a week



# FIBER: MORE, MORE, MORE!

♥ Twenty-five to 35 grams of fiber per day:  
the recommended amount for everyone.

♥ Fifteen grams of fiber per day:  
what most people eat.

Eating fiber each day can help keep your digestion working, lower your heart disease risk and help control your weight.

There are two types of fiber. **Soluble fiber** is found in foods like oatmeal, beans and fruits. It helps lower your cholesterol. **Insoluble fiber** is found in whole grain breads and cereals, brown rice and vegetables. It helps keep you “regular” and feeling full.

Slowly increase your fiber intake by adding one new fiber food at a time. Read the food label to choose a high fiber cereal. Be sure to add more water when increasing your fiber to keep things moving through your digestive tract.

Choose whole grain foods for at least three servings a day. Read the food label for these key terms that will help you choose whole grain products:

- ♥ Whole wheat
- ♥ Whole oats or oatmeal
- ♥ Whole grain corn
- ♥ Popcorn
- ♥ Brown Rice
- ♥ Whole rye

## TIP-OFF

### The Peel is the Real Deal

By leaving the peels on your fruits and vegetables, you can max up your fiber intake. Rinse your produce in warm water before eating to get rid of dirt and pesticides. Remember, whole foods have more fiber than juices.

# THE FATS AND THE FURIOUS

Make it a point to limit the fats you eat and choose healthier foods. Saturated fats, trans-fats and dietary cholesterol will raise your blood cholesterol levels and are not good for your heart. Try to limit your intake of saturated fats to less than 7% of your calories. Limit your cholesterol to less than 200 milligrams (mg) of cholesterol a day.

## To lower your saturated fats:

- Choose non-fat or low-fat dairy products
- Choose lean meats, chicken and fish
- Remove the skin from chicken and turkey before eating
- Use dry beans as a meat substitute
- Don't eat organ meats such as liver, sweetbreads, kidney and brain
- Stay away from saturated oils such as coconut oil and palm oil
- Choose margarine instead of butter

## Limit your cholesterol intake:

- ♥ Lower the number of egg yolks you eat
- ♥ Try an egg substitute or use just the egg whites

Healthier choices for fats include **polyunsaturated** and **monounsaturated** fats. But watch out; though these fats are healthier choices, they're very high in calories. Limit them in your diet.

## To lower your trans-fat intake:

- ▬ Cut back how much you eat of commercially made cookies, crackers and baked goods
- ▬ Cut back on fried foods
- ▬ Look for trans-fat-free margarines
- ▬ Read food labels to find the words "partially hydrogenated" and stay away from these foods

## Unsaturated fats that are not harmful can be found in:

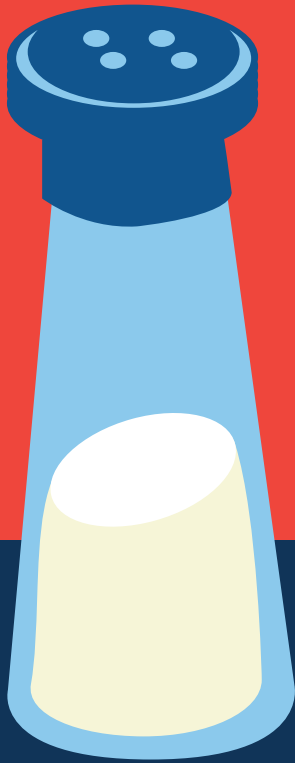
- ♥ Vegetable oils like soybean oil, corn oil, safflower oil, canola oil, olive oil and sunflower oil
- ♥ Walnuts and other nuts
- ♥ Flaxseed
- ♥ Fish such as salmon, lake trout, herring, tuna, sardines, herring



# LIMITING SALT

Salt affects blood pressure. By lowering how much salt you eat, you can lower your blood pressure. Lowering your blood pressure can lower your risk of heart disease and stroke. Keep your sodium intake below 2,300 milligrams per day, which is about one teaspoon of salt.

Read product labels with care to see how much salt is in the foods you buy. The problem is that 75% of the salt people eat each day comes in pre-made foods. Only 5-10% comes from the salt shaker.



## To lower your salt intake:

- ♥ Choose fresh or frozen foods or those labeled “low sodium”
- ♥ Read the food label on frozen foods and choose the lower sodium option
- ♥ Low-sodium foods have 140 milligrams or less per serving
- ♥ Choose unsalted nuts and snack foods
- ♥ Don’t add salt when cooking
- ♥ Choose low-salt or unsalted bullion and broth
- ♥ Add spices to your food instead of salt
- ♥ Use onion powder and garlic powder instead of onion salt and garlic salt

## Salt Can Hide in Sneaky Places

Know about the foods you might not normally think of containing salt:

- Restaurant foods
- Pre-made pasta sauces
- Cereals, even some targeted to children
- Instant bread and muffin mixes
- Cottage cheese
- Condiments like ketchup

## DID YOU KNOW...

→ Sea salt is the same as table salt chemically. It's not healthier for you.

→ Salt is harmful to your nervous system.

→ Many healthy herbs like rosemary, sage, thyme, black pepper and oregano, have antioxidant and health properties. They can be used as a substitute for salt.

→ "Salt-free" salt substitutes sold on store shelves may not be any better for you than salt.

### Hold on. Salt Isn't All Bad!

Humans need some sodium in their diet to survive. Used in small amounts, sodium can:

- ♥ Help maintain the correct balance of fluids in the body
- ♥ Play a part in muscle contraction and relaxation
- ♥ Make sweating possible
- ♥ Let you cool down
- ♥ Keep you from getting heat stroke and dehydration

The secret to sodium is **moderation**. Eating too little salt can cause muscle spasms, irregular heartbeat and feelings of weakness. Cut back where you can and make sodium work for you, not against you.



# READ THE LABEL!

When you're trying to limit the fat, cholesterol and sodium in your diet, try using the nutrition label on packaged foods to help you see how a food stacks up.

There's a lot of information in the **Nutrition Facts** box of the food label. Understanding the information can help you make wise food choices to stay healthy. You don't need to pay attention to **everything** on the label. Let's focus on the information that is important if you have heart disease.

A very important piece of information in the Nutrition Facts is **servings size**. The serving size on the package may not match the amount of food you actually eat. However, all information on the food label is based on the listed serving size. If you eat one cup of a food when the serving size is listed as a half-cup, you'll need to double all the other numbers on the food label. Here are the pieces of information you should focus on:

<b>Calories</b>	This is the calories you get for the listed serving size.
<b>Total Fat</b>	Your total fat intake should be limited to no more than 30% of your total daily calories.
<b>Saturated Fat</b>	This fat raises your LDL (bad) cholesterol. People with heart disease should get less than 7% of total daily calories from saturated fat.
<b>Cholesterol</b>	This will also increase your LDL cholesterol. Keep this less than 200mg a day if you have heart disease.
<b>Sodium</b>	Limit to 2300mg a day.
<b>Dietary Fiber</b>	The goal is to get 25 grams each day.



# THE DINING OUT PROBLEM

Dining out is an American way of life. While home-cooked meals are cheaper and healthier, it's easy to be lured out after a hard day of work to let someone else do the cooking. If it weren't, we wouldn't have a glut of restaurants in every town and city in the country. But that doesn't mean we have to check our healthy eating habits at the front door of the restaurant.

Start by choosing restaurants that are willing to substitute foods and have some healthy items on the menu. Next, pay close attention to portion size when eating out. When you order a meal in a restaurant, chances are that you'll be getting more than 1,000 calories on the plate...and that's not counting your bread and dessert. If a dish has "Big" or "Extra Large" in its name, it probably shouldn't be for you.

When you sit down there's often a basket of bread, chips, or cheese and crackers at the table. Ask the waiter to take it away, or to bring it back with the meal so you don't mindlessly eat these foods. If your dinner mates want the basket on the table, ask them to put it out of your reach.

## Tips for dining out:

- Substitute a vegetable for fries
- Choose baked, broiled or steamed instead of fried
- Get dressings and sauces brought on the side, then you can control the quantity you use
- Use the "fork" method for adding dressing to salads, dip your fork into the dressing and then pick up your bite of salad
- Ask for margarine or olive oil instead of butter
- Remove the skin from your poultry and trim any visible fat from your meat
- Choose fruit or sorbet for dessert or share a dessert with your dinner mate
- Stay away from high fat choices at the salad bar including bacon bits, chopped eggs, cheese and creamy dressing
- If you're grabbing lunch to go, try to choose whole grain bread, water or low-fat milk, yogurt and a piece of fruit
- If you're out running errands for the day, take along some fresh fruit, carrot sticks, low-fat string cheese or nuts to keep you from being tempted by the fast food joints.



# SCALE IT BACK: WATCHING YOUR WEIGHT



Extra weight and body fat can raise your risk for heart disease, stroke, high cholesterol and a number of other diseases. The overweight population in the US has been on a steady increase over the past 20 years. You don't have to work hard to get to an ideal body weight in order to see real health improvements. Losing just 5-10% of your current weight can lower your risk for heart disease and stroke. Avoiding weight gain is also an important step to a healthier life.

Despite what TV commercials and magazine ads scream at us, there are no magic, miracle diets or pills to help us shed the pounds overnight. Here's the winning equation:

**Fewer calories eaten  
+  
more calories burned  
=  
weight loss.**

The only way to lose weight is to lower the amount of calories you take in while becoming more active and burning more calories. Weight loss should be done in a slow, steady fashion. It doesn't happen overnight.

How do you do it? Work on lifestyle changes that you can stick with for the long run. That works better than following a fad diet for quick weight loss that comes back as soon as you stop the diet. Ask your doctor for help in designing a weight loss plan that will work for you.

# HEART HEALTH BY THE NUMBERS

# 0

**Number of US states to meet the nation's Healthy People 2012 goal to lower obesity prevalence to 15%.**

Source: Centers for Disease Control

## ALCOHOL

You may have heard that alcohol, especially wine, is often touted in the news as being “heart healthy.” The reality is not so simple. There are some studies being done to figure out the benefits that alcohol may offer. This research isn’t complete. But there are studies that show many warnings for using alcohol.

Many medications shouldn’t be mixed with alcohol. Start by talking to your doctor or pharmacist to study how alcohol might interact with your medications. Alcohol can lead to higher triglycerides, higher blood pressure, weight gain and heart failure, so talk with your doctor before using alcohol to see if you’re at risk.

If you do drink alcohol, moderation is the key. Men should not drink more than two drinks per day and women should not drink more than one per day. One drink is equal to a 12 ounce beer, a four ounce glass of wine or one and a half ounces of spirits.

## CHECK IT OUT!

**American Heart Association: Nutrition Center**

[heart.org/HEARTORG/HealthyLiving/HealthyEating/Healthy-Eating\\_UCM\\_001188\\_SubHomePage.jsp](http://heart.org/HEARTORG/HealthyLiving/HealthyEating/Healthy-Eating_UCM_001188_SubHomePage.jsp)

**Academy of Nutrition and Dietetics: Heart Health and Diet**

[eatright.org/resource/health/wellness/heart-and-cardiovascular-health/heart-health-and-diet](http://eatright.org/resource/health/wellness/heart-and-cardiovascular-health/heart-health-and-diet)

**Mayo Clinic: Alcohol Use**

[mayoclinic.com/health/alcohol/SC00024](http://mayoclinic.com/health/alcohol/SC00024)



# RISKING THE RUN

## HEART DISEASE AND EXERCISE

### WHY EXERCISE?

Regular exercise and activity are an important part of long-term health and well-being. A lack of regular exercise, when added with other risk factors may raise the risk of heart disease.



### The Benefits of Exercise

- ♥ Weight control
- ♥ Helps your heart get stronger and pump better
- ♥ Lowers your blood pressure
- ♥ May lower your bad cholesterol and increase your good cholesterol
- ♥ Helps to manage your stress levels
- ♥ Helps people with diabetes control their blood sugar levels

# WHERE TO START?

Start by talking with your doctor. Your doctor may give you a stress test to figure out a safe level of exercise for you. If you don't get a stress test, ask your doctor how much exercise you should do each day. Ask if there are any types of exercise you shouldn't do.

Q

## HOW OFTEN SHOULD I EXERCISE?

A

It's important to try to stay active most days of the week. The goal is to do some type of aerobic exercise for 20-60 minutes three to five days per week. Keep in mind that everybody is different. You may need to start slowly and get used to being active. Break the exercise sessions into shorter time spans if you need to. Try two 10-minute sessions to start. Even a small amount of exercise is better than none at all. Try to get into a routine. Set certain days and times that you'll exercise.

Q

## HOW HARD SHOULD I WORK OUT?

A

Brisk energy is great for your heart, but you don't want to overdo it and work too hard. An easy way to figure out how hard you're working is to use the **Talk test**: you should be able to have enough air in your lungs to carry on a normal conversation, but not enough air in your lungs to sing a song. Adjust your pace by going faster or slower as needed.

## TIP-OFF

Keep an **exercise record** or **journal** of the days and minutes you work out. It may help keep you motivated and consistent.



# Q

## WHAT SHOULD I INCLUDE IN MY EXERCISE ROUTINE?

# A

**Warm-up:** This gets your body ready for exercise by slowly raising your blood pressure and heart rate. It also helps to prevent injury to joints and muscles. Start by doing the activity slowly for five to 10 minutes before increasing your pace. You can also do some gentle stretching.

**Aerobic exercise:** This is the best exercise to improve your heart and lungs. This uses the large muscles non-stop for 20-30 minutes. Examples of aerobic exercise include:

- ♥ Walking
- ♥ Biking
- ♥ Swimming

**Cool-down:** This lets your body come back to a resting state by slowly lowering your heart rate and blood pressure. End your exercise session by slowing down the activity for five to 10 minutes. You can include gentle stretching here as well.

## WARNING!

If you develop angina or chest pain, stop and rest. Take your nitroglycerin as advised. If the pain doesn't go away within a few minutes, **call 911**, this could be a medical emergency.

## EXERCISING SAFELY

If you have any of these symptoms while exercising, stop right away and call your doctor.

- Chest pain
- Strange shortness of breath
- Fast heart rate or irregular heart rate
- Dizziness
- Nausea, headache or clammy skin
- Jaw or arm pain
- Sweating that isn't normal

# COMMIT TO BE FIT: EXERCISE GUIDELINES

Okay. You've made your mind up to be more active, start an exercise program and improve your heart health. Great! But before you go bolting outside, ready to take on the decathlon before breakfast, there are some general guidelines you should know.

## **Get your doctor's okay before starting any exercise program.**

Your doctor can help decide the best exercise plan for you based on your age, weight and health restrictions.

## **Don't eat within one hour of exercise.**

Fatty meals and snacks can stay in your stomach for a long time. This can make exercising painful and hard. A high carb, low-fat snack can level out blood sugar and be digested easily. Say no to alcohol and caffeine three to four hours before exercise. If you're a smoker, wait one hour before or after exercising to eat. Also if you smoke, stop it!

## **Drink fluids and stay hydrated.**

Water is your best friend when exercising. It quenches your thirst and replaces fluids lost when you sweat. A pre-exercise snack can be a liquid meal, like a fruit smoothie.

## **Exercise on a regular basis. You can't store up the benefits.**

Just because you put in a good run and workout last week doesn't mean it'll carry you over to this week. Keep up the exercise program on a regular basis. You'll see results quicker and they'll last longer if you stay at it.



## Remember to always warm-up and cool-down before and after exercise.

It's good to warm up before exercise so your body can make the adjustments it needs. Warming up...

- Raises your breathing and heart rate
- Raises the reactions in your muscles that release energy
- Helps blood flow to the muscles. This supplies them with more oxygen and helps remove waste products.

Cooling down after exercise is just as important. This should include five to 10 minutes of jogging or walking. This will lower your body temperature and remove waste from the taxed muscles. Follow that with five to 10 minutes of static stretching. This helps muscles relax, realign and regain their normal range of motion. Hold each stretch for 10 seconds.

A good cool down will...

- Help remove waste products from muscles
- Lower the chances of dizziness or fainting
- Lower the adrenaline level in the blood
- Let the heart rate return to its resting rate

## Use the “Talk Test” when exercising.

You should be able to carry on a conversation with exercise without gasping for air. If you can carry on a light chat while exercising, you're in a good workout range. If your speech starts to break, slow or hurt, you could be working too hard.



## **You should feel pleasantly tired, not exhausted after exercise.**

You've just done something big. You've done a great service to your body and you should feel a pleasant form of tiredness. If you've done it right, your endorphins will kick in and make you feel a sense of euphoria. If you're exhausted and panting for breath, it's a sign that your workout was too rigorous. Reel it in a bit next time. Find the right mix and don't overdo it next time.

## **Know about temperature conditions.**

Exercise in a temperature controlled environment when the temperature outside is above 85 degrees Fahrenheit or below 32 degrees, or when the humidity is greater than 75%. When you exercise, wear a medical ID or carry a cell phone. Let someone know when you plan to be back.

## **Though exercise does make you healthier, don't exercise when you're sick.**

Wait until you feel better to start your exercise routine again. You can exercise if your symptoms are above the neck. A common cold, runny nose, nasal congestion, sneezing and a minor sore throat are okay to exercise with. Scale back your workout and take it easier. If your symptoms are below the neck, don't exercise. Chest congestion, cough or upset stomach should tell you not to exercise. Cancel your workout if you have a fever, body aches or fatigue.



# Eating and Your Exercise Routine

## EARLY MORNING:

If you exercise first thing in the morning, some fruit or a small amount of juice and water should do.

## MID-MORNING:

A breakfast high in carbohydrates will help give you the energy you need to get through your workout. A bowl of oatmeal, whole grain toast and jam are good choices.

## LATE MORNING:

You may want to try eating a light snack before working out and then a carbohydrate- and protein-rich lunch (such as a turkey sandwich) that will replenish your body stores after you exercise.

## AFTERNOON:

If you work out later in the afternoon, from noon to 3 p.m., you probably don't need to eat anything before. This is true if you've eaten a well-balanced lunch and breakfast.

## CLOSE TO DINNER:

A light snack like a bowl of yogurt or fruit will give you some energy.

## AFTER DINNER:

When exercising after dinner, just make sure to wait a while, depending on the size of your meal.

# STAY MOTIVATED AND KEEP IT FUN

First, choose an activity that you enjoy. If you aren't sure what activity you'd like to do, try a few different things. You're more likely to stick with it if you're doing an activity that you find fun to do.

Set realistic goals. Don't try to become an athlete overnight. Just try to increase your activity every day. Look for ways to be more active in your everyday life:

- ♥ Take the stairs instead of the elevator
- ♥ Walk down every aisle in the grocery store even if you don't need anything from those aisles
- ♥ Jog to and from your car when going places
- ♥ Take your dog on regular walks or pull your kids in a wagon
- ♥ Ride your bike whenever you can

# NO EXCUSES

- ✓ Pick an activity that is convenient for you. Find a fitness place that's close to work or home.
- ✓ Exercise with a friend so you don't get bored.
- ✓ If you have time crunches, break the exercise routine into two sessions.
- ✓ Pick an activity that fits into your budget. Remember, a pair of sneakers and a place to walk shouldn't have to cost a lot.
- ✓ Get into a routine. Set certain days and times that you'll exercise.
- ✓ Keep an exercise record of the days and minutes you exercise. It may help you stay motivated and be consistent.

## REWARD YOURSELF

Use little treats to keep yourself motivated. For example, go to a movie, get a new outfit or a pair of sneakers after reaching a goal or exercising a number of times each week. Be good to your body, be good to yourself. You can do this.

## CHECK IT OUT!

### **WebMD: Exercise for a Healthy Heart**

[webmd.com/heart-disease/guide/exercise-healthy-heart](http://webmd.com/heart-disease/guide/exercise-healthy-heart)

### **Health.com: The Best Types of Exercise for a Healthy Heart**

[health.com/health/condition-article/0,,20188237,00.html](http://health.com/health/condition-article/0,,20188237,00.html)



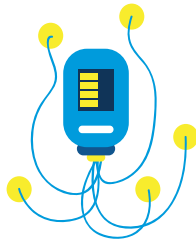
# CHECK THIS OUT

## CARDIAC DIAGNOSTIC TESTS

### WHICH TEST IS BEST?

When trying to find cardiovascular disease or other heart problems, your doctor has many choices for tests. Here is an outline of some of the most common tests.

### HOLTER MONITOR OR EVENT MONITOR



#### WHAT IT DOES

Records heart rhythm over 24-48 hours, or up to a month.

Used to find any irregular heartbeats or heart rhythm.

Patient can push a button to record the rhythm when feeling symptoms.

#### WHAT TO EXPECT

Small sticky pads are placed on the chest and connected by wires to a small recording device.

### ELECTROCARDIOGRAM (EKG, 12 LEAD EKG)



#### WHAT IT DOES

Show if the heart rhythm is normal.

Can spot some heart damage and if the heart is thicker than normal.

May show signs of coronary disease.

#### WHAT TO EXPECT

Can be done in the doctor's office.

Wires will be placed on the arms, legs and chest.

Takes only one to two minutes.

### ECHOCARDIOGRAM (ECHO)



#### WHAT IT DOES

Uses sound waves to show the valves and chambers of the heart, and how well they're working.

Makes a moving picture of the heart on a video screen.

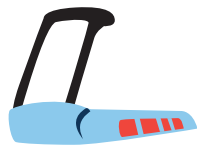
May include some time on the bike or treadmill.

#### WHAT TO EXPECT

Technician will use a probe over the area of the heart on the chest.

The test takes 15 to more than 60 minutes, depending on what the doctor's looking for and the quality of the pictures.

## STRESS TEST (EXERCISE TEST)



### WHAT IT DOES

Shows how the heart can handle an increase in exercise.

Can check if there's reduced blood flow to the heart.

Can help find out if more tests are needed.

### WHAT TO EXPECT

Small sticky pads are placed on the chest to record the EKG; a cuff is placed on the arm to record blood pressure.

The patient walks slowly at first on a treadmill; then the speed and tilt are increased. A stationary bike can also be used.



## NUCLEAR IMAGING TEST

### WHAT IT DOES

Is more sensitive than the regular exercise stress test.

Shows the blood supply to the heart at rest, and when the heart rate is increased due to exercise or medication.

Finds arteries that are blocked and the area of the heart with reduced blood supply.

Shows scarred areas of the heart from a previous heart attack.

Measures the heart's pumping action.

### WHAT TO EXPECT

An IV will be placed in the arm.

A radioactive material is injected to create an image of the heart muscle and its blood flow.

If you can't use the treadmill or bike, a drug may be injected to mimic exercise.

## FIVE FANTASTIC HEART FACTS



Due to the stress of a job, more heart attacks happen on Monday mornings than at any other time of the week.



A good belly laugh can send 20% more blood flowing through your whole body. So laughter really is the best medicine.



The heart can pump blood to every cell in the body in under a minute.



Heart disease kills 500,000 American women each year.



The ancient Greeks believed the soul lived inside the heart.

## CHECK IT OUT!



**Heartsite.com: Cardiac Tests**  
[heartsite.com/html/Tests.html](http://heartsite.com/html/Tests.html)



# OKAY, HERE'S THE PLAN...

## TREATING CORONARY ARTERY DISEASE

### PLAN OF ATTACK

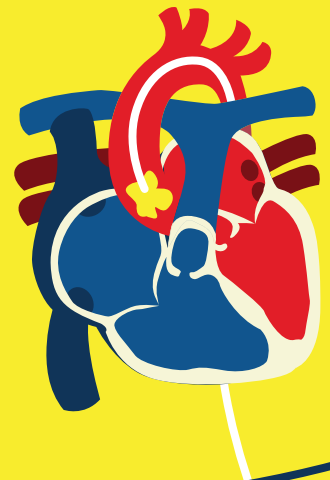
Seems your doctor has run you through test after test. It's now time to weigh the options and decide which treatment path to take to best take care of your heart condition. Coronary artery disease narrows the arteries to the heart and makes blood flow hard. Because of this reduced blood flow, you're at risk for chest pain, shortness of breath and heart attack. In this chapter we'll look at the different treatment plans for attacking this problem and making you well again.

Treatment Option:

### CARDIAC CATHETERIZATION

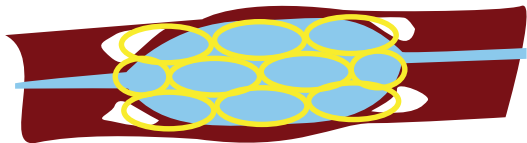
This procedure involves inserting a catheter into the artery in the groin or arm and advancing it to the heart. This treatment...

- May be used to diagnose the source of chest pain or shortness of breath.
- Can help diagnose heart artery or heart valve problems.
- Involves dye being injected to see the flow of blood through the heart arteries, the pumping of the heart muscle, and any leaking from the heart valves.
- Is done to further diagnose heart disease, to show the exact locations and extent of blockages in heart arteries.
- Finds out how strong the heart muscle is.
- Lets the doctor decide on the need for percutaneous coronary intervention (also called PCI or angioplasty) or coronary artery bypass surgery.
- Is used by specialized doctors to perform angioplasty or to insert one or more stents.



## Treatment Option: **BALLOON ANGIOPLASTY**

In this procedure, a catheter with a tiny balloon on its tip is inflated where there is a clog in the artery. The balloon gently pushes the plaque against the wall of the artery, opening the artery so that blood can flow more easily.



## Treatment Option: **STENTS**

Stents are used often to keep the blood vessel from collapsing after angioplasty. They give support to keep the artery open. Stents are made of stainless steel or metal alloys and are mesh-like. The newer stents are now coated with a drug to keep scar tissue from forming.




## Treatment Option: **CORONARY ARTERY BYPASS GRAFT SURGERY (CABG)**

This surgery is used for people who have more than one blockage or a blockage in a vital place that may not be suitable or safe for PCI.

 Bypass surgery redirects blood vessels around the blocked area.

 One or more bypass grafts are used.

 The graft(s) may be a vein from the leg or arm, and/or an artery from the inside of the chest or from the arm. One end of the graft is attached to the aorta and the other end is attached to the artery below where the coronary artery is clogged. This makes a new route that lets the blood flow easily to the heart muscle supplied by the coronary artery

## Treatment Option:

## **IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD)**

This mouthful of a treatment consists of a machine that monitors


heart rhythms and delivers a shock if a dangerous rhythm develops. The machine resets the heart to a more normal rate and pattern. It's placed under the skin through a small cut. Special insulated electrical wires or "leads" are inserted into the heart.

## Treatment Option:

## **PACEMAKER** A pacemaker is a device that...

 Is used to help the heart beat more regularly.

 Is useful if the heart beats too slowly.

 Is placed under the skin through a small cut with electrical wires or "leads" that are inserted into the heart.



## Treatment Option:

# NITROGLYCERIN

Nitroglycerin is used to prevent and treat angina. It works by relaxing the blood vessels to the heart to raise the supply of blood and oxygen.

Nitroglycerin comes in these forms:



Tablets taken under the tongue



Tablets taken between the cheek and the gums



Long acting tablets



A spray applied under the tongue

**Follow the instructions on the label and ask your doctor and/or pharmacist to tell you if you don't understand.**

Sometimes, nitroglycerin is taken to relieve chest pain during attacks. It can also be used to prevent pain before certain activities like climbing stairs, sexual activity, walking uphill and being outside in cold weather. If your doctor prescribed nitroglycerin, you should carry it with you *at all times*.

### NOTE:

Don't use tablets that have been opened longer than six months or tablets that have crumbled or turned to powder.

## How to Take Nitroglycerin

Always sit down or lie down before you take nitroglycerin. This medication may cause low blood pressure and dizziness.

### If you use the tablets:

Place a tablet under your tongue and let it dissolve. **Don't swallow the tablet.** Try not to swallow any saliva until the tablet dissolves. The tablets may have a sweet, tingling sensation under your tongue. Whether it tingles or not doesn't ensure the freshness of the medication.

### If you use the spray:

♥ **Don't shake the drug container.** Hold it upright with the opening of the spray mechanism as close to your mouth as possible.

♥ Press the spray mechanism with your forefinger to release the spray. Spray the medication under your tongue or onto your tongue and close your mouth right away. Don't inhale or swallow the spray.

### If you have angina:

- Sit or lie down
- Place a nitro pill or spray under your tongue
- Wait five minutes

### If you still have angina:

- Take another dose of nitroglycerin
- Wait five minutes

### If the angina still hasn't gone away:

- Take a third dose of nitroglycerin
- Wait another five minutes






### If your angina is not relieved after three nitroglycerin tablets or sprays:

- Call 911 or get to the emergency room
- DO NOT DRIVE YOURSELF!
















## Nitro Notes

-  Make sure you see your doctor regularly and report any chest pain or discomfort that you have.
-  If you take nitroglycerin to prevent angina and still have attacks, contact your doctor.
-  Don't stop taking your medication without talking with your doctor.
-  Stopping the medication can cause chest pain. Your doctor will probably want to lower your dose slowly over time.
-  Nitroglycerin can lose its power over time. Let your doctor know if the medication is no longer helping you.

## Side Effects

-  **Headache: Don't stop taking the medication. If the headaches don't stop, let your doctor know. Headaches often get better after taking the medication for a week.**
-  **Dizziness or lightheadedness: Try sitting down and getting up slowly.**
-  **Flushed feeling: Wear cool clothing and stay out of the heat.**

## Other Nitro Precautions

-  Before taking nitroglycerin, tell your doctor if you are allergic to it, other nitrates or any other medications.
-  Let your doctor know about any other medicines you may be taking, including vitamins, herbal/dietary supplements.
-  Do not take nitroglycerin if you are taking *sildenafil* (Viagra) or *vardenafil* (Levitra).
-  Nitroglycerin can make you dizzy or drowsy, don't drive or operate dangerous machinery until you know how nitroglycerin affects you.
-  Don't drink alcohol while taking nitroglycerin. It can make the side effects worse.
-  Keep the nitroglycerin in the original container with the lid closed tightly.
-  Never open the container of sublingual tablets until you need a dose. Close the container tightly after each use. Don't put other medications, cotton or anything else in the container with the nitroglycerin.
-  Never take outdated medications.

## CHECK IT OUT!

**WebMD: Coronary Artery Disease - Treatment Overview**  
[webmd.com/heart-disease/tc/coronary-artery-disease-treatment-overview](http://webmd.com/heart-disease/tc/coronary-artery-disease-treatment-overview)

**MedicineNet.com: Nitroglycerin**  
[medicinenet.com/nitroglycerin/article.htm](http://medicinenet.com/nitroglycerin/article.htm)



# THEY'VE GOT THE BEAT

## WOMEN AND HEART DISEASE

### FACTS AND FIGURES

Everyone knows that cancer is a major health concern for both men and women. But most American women don't realize that heart disease takes the lives of nearly twice as many of them each year than cancer does. Women in America also don't seem to know about their risk for the disease and recognizing the warning signs.

As the number one killer of women in the US, heart disease claims the lives of more than 500,000 women each year. While many women think of heart disease as a man's disease, half a million women a year is a statistic that speaks for itself. More women than men die of heart disease each year. Many of these women put off getting treatment for their symptoms that could save their lives.

Cardiovascular disease most often happens later for women, but even young women can suffer from heart disease. Certain risk factors can make the threat of heart disease greater.

#### Risk Factors:

- Cigarette smoking
- High cholesterol
- Lack of exercise and activity
- Overweight or obese
- Diabetes

### HEART HEALTH BY THE NUMBERS

# 1 IN 4

**Number of female deaths  
from heart disease for  
women in the United  
States in 2009.**

# WARNING SIGNS

The heart attack warning signs for women may be different than men. Some women report classic symptoms like chest pain. Some describe it as discomfort, pressure, fullness, tightness or a squeezing feeling. A lot of women don't have any chest pain at all.

For women, the symptoms may seem like those not normally connected with heart problems:

- ♥ Weakness
- ♥ Dizziness
- ♥ Nausea or vomiting
- ♥ Flu-like symptoms (feeling clammy, cold sweats, body aches)
- ♥ Heartburn
- ♥ Fatigue for no reason
- ♥ Feelings of anxiety
- ♥ Out of breath without chest pain
- ♥ Back, neck, jaw or stomach pain



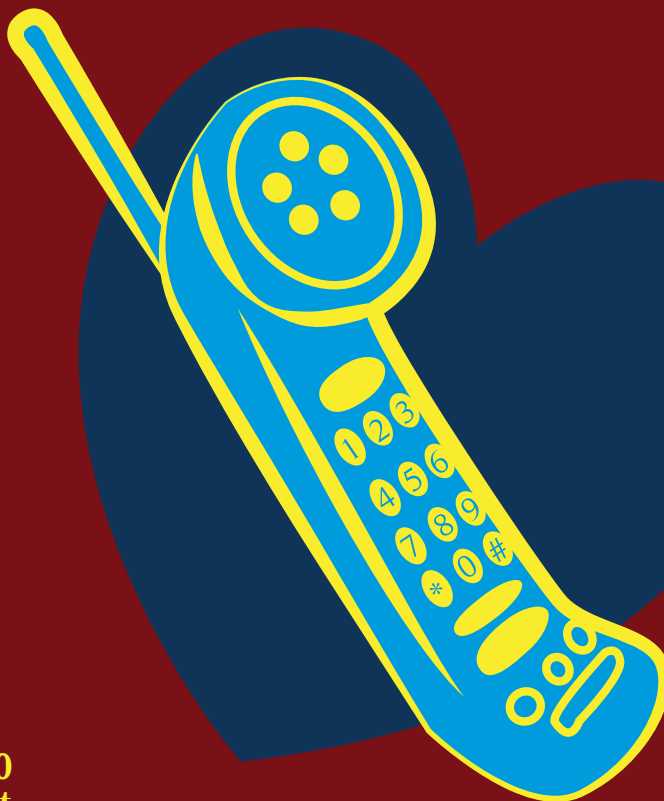
Because of these different symptoms, treating heart attacks in women is many times pushed to the side, making the damage worse.

Women should work with their doctors to lower the risks of cardiovascular disease. They should know of all the possible warning signs and learn to report any symptoms they may experience, even if they don't seem heart-related.



## TIP-OFF

If you're not sure if your symptoms are from a heart attack or not, it's better to be safe. Call your doctor. If you can't reach your doctor, call **911** right away.



## FATAL FLAWS

**The fact is: More than 200,000 women die each year from heart attacks. That's five times as many women as breast cancer. Arm yourself with knowledge and spread the word. Recognize the signs of heart disease for women and take the steps to fight it.**

### CHECK IT OUT!

**Women and Heart Disease Fact Sheet**  
[cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/fs\\_women\\_heart.htm](https://cdc.gov/dhdsp/data_statistics/fact_sheets/fs_women_heart.htm)

**MedlinePlus: Heart Disease in Women**  
[medlineplus.gov/heartdiseaseinwomen.html](https://medlineplus.gov/heartdiseaseinwomen.html)



# HEARTS ON THE MOVE

## TRAVELING WITH HEART DISEASE

### TRAVEL ON

A heart condition shouldn't have to slow you down from the things you enjoy doing. That being said, there are precautions you need to take to be ready for an emergency, especially when traveling.

Before you leave on a trip, see your doctor. He or she will tell you any restrictions or precautions for you while you travel.

### TRIP TIPS

Keep these tips in mind as you get ready to travel:

- Carry a list of medications and dosages that you're currently taking
- Bring a copy of a baseline EKG (electrocardiogram)
- Carry the name and contact information of your doctor
- If you have a defibrillator or pacemaker, carry your medical device ID card with you at all times
- Know the medical facilities in the area of your travels, just in case
- Bring enough medication to last your whole trip
- Pack your medication in your carry-on luggage so it isn't lost or delayed

### BE READY

If you'll need oxygen for your trip, make plans ahead of time and figure in the costs. Preparing in advance will make sure that you have the equipment you'll need. During your trip, remember to stay hydrated. Drink plenty of water but stay away from alcohol and caffeine drinks. Get up and move. This will lower the chance of getting blood clots or deep vein thrombosis.



# FLYING WITH HEART DISEASE

Use this pre-travel checklist when getting ready to travel by air:

	Carry a good supply of medications. Label them and place them in carry-on baggage
	If you have an irregular heartbeat or have a pacemaker, take along a copy of a normal electrocardiogram (EKG)
	If you have a pacemaker, carry contact numbers and website addresses for pacemaker manufacturers and local reps in the areas to which you're traveling
	Travelers over 50 or those under 50 with risk factors for deep venous thrombosis (such as obesity, large varicose veins, congestive heart failure, pregnancy, recent major surgery, use of hormone replacement therapy, or oral contraceptives) should wear below-the-knee compression stockings (20 Hg30 Hg) when traveling on a plane for more than eight hours or 3,100 miles
	Arrange for aisle seating if at risk for deep venous thrombosis. You will be able to enter and exit your seat, walk around and stretch your legs without disrupting other passengers
	Stay away from alcoholic drinks onboard but keep well hydrated with water
	Talk with your doctor about any new symptoms before you travel
	Think about buying medical evacuation insurance if your health insurance doesn't cover it
	Check the CDC's website for the latest immunization and health recommendations: <a href="http://wwwnc.cdc.gov/travel/destinations/list.htm">wwwnc.cdc.gov/travel/destinations/list.htm</a>

CHECK IT OUT! 

Sources: Centers for Disease Control and  
Prevention Travel Information  
[cdc.gov/travel/travel.html](http://cdc.gov/travel/travel.html)

# TRIALS AND YOUR EMOTIONAL FIBRILLATIONS WELL-BEING

## CONTENTS UNDER PRESSURE

Living with any chronic disease is tough. Feeling troubled and overwhelmed is normal. You have a health care team who you can share your feelings with and count on for help and answers. If your care plan is causing you concern, tell them how you feel and point out any problems.

Feeling stress at home, work or school can get in the way of taking care of yourself. Finding a way to cope with these pressures is vital. Don't be afraid to ask for help.

## SUPPORT GROUPS

It helps to talk with other people who have problems like your own. Think about joining a support group. In support groups, people who have just found out they have a chronic disease such as heart disease or diabetes can learn from people who have lived with it for a long time. These people talk about and share ideas for how they deal with the situation.

Your health care team can give you information on local support groups. Just ask. Online support groups like WebMD's Heart Disease Community can help in getting answers to your questions. See [exchanges.webmd.com/heart-disease-exchange](http://exchanges.webmd.com/heart-disease-exchange)

## TIP-OFF STRESS MANAGEMENT

Stress happens.

It's normal to have some stress in your life. If you feel you're under too much stress for too long, it can make handling your health harder. Try these tips for easing the stress on your body:

- Deep breathing exercises
- Relaxation training
- Yoga
- Meditation
- Massage
- Biofeedback therapy



# COUNSELING

One-on-one and family counseling sessions may also help. Be sure to see a counselor who has some experience in dealing with different health conditions and has working knowledge about the care of your specific condition. Ask your health care provider to help you find a counselor.

## DEPRESSION AND HEART DISEASE

Depression is a treatable disorder of the brain.

### Symptoms of Depression:

- ♥ Lasting sad, anxious, or “empty” mood
- ♥ Feelings of hopelessness, pessimism
- ♥ Feelings of guilt, worthlessness, helplessness
- ♥ Loss of interest or pleasure in hobbies and activities once enjoyed, including sex
- ♥ Decreased energy, fatigue, being “slowed down”
- ♥ Difficulty concentrating, remembering, making decisions
- ♥ Insomnia, early-morning awakening or oversleeping
- ♥ Appetite and/or weight changes
- ♥ Thoughts of death or suicide or suicide attempts
- ♥ Feeling restless and irritable

If you have five or more of these symptoms every day for at least two weeks and they interfere with routine daily activities like work, self-care, and childcare or your social life, get checked for depression by a doctor.

Depression and heart disease are often found hanging out together looking for trouble. This dangerous pair presents the two leading causes for disability throughout the world. About five percent of people suffer from depression, but what’s worse is that these people have a greater risk of developing coronary heart disease. Treatment for depression helps people handle the symptoms of their disease. This can improve the quality of their lives.



# Treating Depression

There are many different treatments for depression. These must be chosen with care by a trained professional based on your case.

Doctor-prescribed **antidepressant medications** are safe and work well, but you should talk to your doctor before starting any new medication. This will make sure the new drug won't interact badly with medications you're already taking.

Some types of **psychotherapy**, or "talk" therapy, also can ease depression. Recovery from depression takes time. Antidepressants can take many weeks to work and may need to be combined with ongoing psychotherapy.

Not everyone responds to treatment in the same way. Prescriptions and dosing may need to be adjusted.

Depression can be treated, plus whatever other illnesses you might have. If you think you may be depressed, don't lose hope. **Seek help for depression.**

## FIVE FANTASTIC HEART FACTS

- 1** The heart has its own electrical impulse so it can keep beating even when removed from the body. It just needs a good supply of oxygen.
- 2** Squeeze a tennis ball tightly. That's how hard a beating heart works to pump blood.
- 3** A newborn baby has about one cup of blood in its body.
- 4** The heart pumps blood to nearly all of the body's 75 trillion cells. The corneas in the eyes are the only body part to get no blood supply.
- 5** Early Egyptians believed that the heart and other major organs had wills of their own. They thought these organs could move around inside the body.

### CHECK IT OUT!

**Heart Disease Support Groups**  
[heart-disease.supportgroups.com/#](http://heart-disease.supportgroups.com/#)

**WebMD: Heart Disease Resources**  
[webmd.com/heart-disease/guide/heart-disease-resources](http://webmd.com/heart-disease/guide/heart-disease-resources)



# NOTES



# RESOURCES

## **American Heart Association**

Phone: 1-800-AHA-USA-1 or 1-800-242-8721  
[americanheart.org](http://americanheart.org)

## **U.S Food and Drug Administration**

[fda.gov](http://fda.gov)

## **The Mended Hearts, Inc. (for heart surgery patients)**

Phone: 1-888-432-7899  
Email: [info@mendedhearts.org](mailto:info@mendedhearts.org)  
[mendedhearts.org](http://mendedhearts.org)

## **TRIO -- Transplant Recipients International Organization, Inc.**

Phone: 1-800-TRIO386 or (202) 293-0980  
Email: [info@trioweb.org](mailto:info@trioweb.org)  
[trioweb.org](http://trioweb.org)

## **U.S. Department of Health and Human Services, Office on Women's Health**

Phone: (202) 690-7650  
[womenshealth.gov](http://womenshealth.gov)

## **Health Central: Heart Disease**

[healthcentral.com/heart-disease](http://healthcentral.com/heart-disease)

## **Centers for Disease Control and Prevention**

[cdc.gov/heartdisease/](http://cdc.gov/heartdisease/)

© 2013 Centene Corporation. All rights reserved. All materials are exclusively owned by Centene Corporation and are protected by United States and international copyright law. No part of this publication may be reproduced, distributed, displayed, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Centene Corporation. You may not alter or remove any trademark, copyright or other notice. v.2

MCAREI4-00014E



# LISTENING TO YOUR HEART MATTERS!

“It is important that consumers have access to information that helps them understand and make good decisions on matters relating to health. We know that heart disease is a serious health challenge that disproportionately impacts our families and community. Listening to Your Heart Matters is a valuable publication that individuals, families and health experts can utilize to better understand and help combat this disease.”

“Es importante que Latinos tengan acceso a información que les ayuda a comprender y tomar decisiones importantes sobre su salud. Nosotros sabemos que la cardiopatía sigue afectando desproporcionadamente a nuestras familias Latinas. Escuchando a tu corazón es una publicación útil y valiosa que personas, familias, y profesionales pueden utilizar para entender mejor y ayudar a combatir las enfermedades que afectan al corazón.”

**Delia Pompa**  
Senior Vice President of Programs  
National Council of La Raza



MADE IN THE U.S.A.

This book was printed on recycled paper.

ISBN: 978-0-9857750-3-2

**Heart disease can happen to anyone. This book gets to the heart of the matter and offers insightful information, whether you have the disease or want to prevent it. You'll learn:**

-  **HOW THE HEART WORKS**
-  **WARNING SIGNS OF A HEART ATTACK**
-  **RISK FACTORS**
-  **NUTRITION**
-  **HEART DISEASE & EXERCISE**
-  **CARDIAC TESTING**
-  **TREATMENT OPTIONS**
-  **MORE**

**CENTENE**<sup>®</sup>  
Corporation

