

## BE HEART-HEALTHY!



February 14<sup>th</sup> is Valentine's Day, a day associated with symbols of love, gifts, and lots of hearts!

February is also **American Heart Month**, a month designated by the National Institutes of Health as a time for teaching Americans about healthy lifestyles to prevent heart disease. Heart disease is often considered an adult problem, but many of the conditions leading to heart disease can begin in childhood.

Give yourself the gift of a healthy heart now by adopting heart-healthy habits. If you do little things to improve your health every day when you are young, you will be less likely to develop heart disease when you grow up.



**Heart disease**, also known as cardiovascular disease, is a very serious health problem. It is the leading cause of death in the United States, and it happens when the heart and blood vessels (parts of the cardiovascular, or circulatory system) aren't working properly and includes many different conditions.

Some people are born with heart defects, but many heart problems are the result of poor lifestyle choices. Some common heart problems are angina, arrhythmias, atherosclerosis, heart attack, and stroke.

- **angina:** Pain in the chest that occurs when the heart isn't getting enough blood
- **arrhythmias:** Abnormal heart rhythms
- **atherosclerosis:** A buildup of **plaque** (fat and cholesterol) in the arteries make the blood vessels narrower so not as much blood can flow through



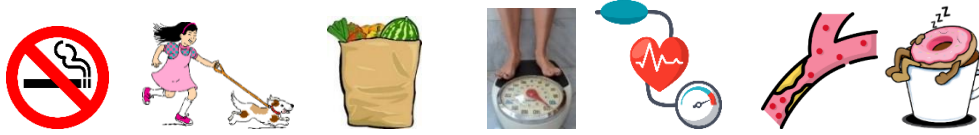
### Plaque buildup in a blood vessel

- **heart attack:** A heart attack occurs when blood flow to the heart is cut off. If a heart attack is severe, part of the heart muscle may die. A severe heart attack can even cause death.
- **stroke:** A stroke occurs when the brain is damaged because it doesn't get enough blood. This can be caused by a blocked artery or a blood vessel that bursts (**aneurysm**).



## "LIFE'S SIMPLE 7" - Healthy Lifestyle Choices to Prevent Heart Disease

(from the American Heart Association and the US Department of Agriculture, for children 5 and older)



### ♥ Don't Smoke, Don't Use Smokeless Tobacco, and Don't Use Nicotine Products

When you inhale cigarette smoke, your blood becomes contaminated with the smoke's chemicals. The chemicals in cigarette smoke can damage your heart and blood vessels and lead to cardiovascular disease. According to the American Heart Association, "using any tobacco product damages nearly every organ in your body and can cause heart disease and cancer." This includes **second-hand smoke**, which is breathing in the smoke from someone else's cigarette.

### ♥ Be Physically Active Every Day

- ✓ Healthy kids age 5 and older should get at least one hour of moderate to vigorous physical activity each day. This can be divided into two 30-minute activities or three 20-minute activities. Moderate activity includes things like brisk walking or bike riding. Vigorous activity includes things like dancing, jogging, and aerobics.
- ✓ Limit **screen time** (the time you spend sitting in front of a computer or TV). The American Heart Association recommends a limit of 1 – 2 hours per day for children.

### ♥ Eat a Heart Healthy Diet

- ✓ Eat enough calories for your body to grow strong and develop!
- ✓ Eat foods low in saturated fat, trans fat, cholesterol, salt, and added sugar.
- ✓ Choose a variety of foods to get enough carbohydrates, protein, and other nutrients.
- ✓ Eat whole grain and high fiber breads and cereals rather than refined grains. Use the "*age +5 guide*" to determine the recommended amount of fiber. For example, if you are 9 years old, you should eat 9 + 5 grams of fiber each day.
- ✓ Eat a variety of fruits and vegetables every day. Limit fruit juices, which are high in sugar and usually have no fiber. Kids should have at least 5 servings of fruit and vegetables each day.
- ✓ Eat fish at least two times a week.
- ✓ Total fat should be no more than 30% of total calories, saturated fat no more than 10% of total calories.

### ♥ Keep a Healthy Weight

Eat only enough calories to maintain a healthy weight. If you are overweight and/or have a family history of **diabetes** (a disease that affects how the body uses glucose, a sugar that is the body's main source of fuel), your doctor may want to test you for diabetes. If you eat more calories than your body uses, you will gain weight.



### ♥ **Keep Your Blood Pressure Healthy**

**Blood pressure** measures how easy or hard it is for blood to be pumped through the blood vessels in your body. Things that can contribute to high blood pressure include family history, excess weight, race, and age. Diet, exercise, and weight management can help to fight high blood pressure. Another name for high blood pressure is **hypertension**.

### ♥ **Keep Your Total Cholesterol Healthy**

**Cholesterol** is a waxy, fatty substance found in your blood and cells. Some cholesterol is important for good health, but too much is unhealthy. Too much cholesterol can build up in your arteries and block blood flow. Cholesterol can often be managed through diet and exercise. Follow the guidance of your doctor or a registered dietician to help set up a heart-healthy diet.

The American Academy of Pediatrics recommends children be screened for high cholesterol between ages 9 and 11 and again between the ages of 17 and 21.

### ♥ **Keep Your Blood Sugar Healthy**

When you eat foods that are high in carbohydrates, your digestive system breaks them down into sugar. If your blood sugar gets too high too often, you are more likely to develop diabetes, which increases the risk of heart disease and stroke.

The American Heart Association recommends that children between the ages of 2 – 18 have less than 25 grams (6 teaspoons) of added sugar each day for a healthy heart.

This simple activity will give you an idea of how hard the heart works and why it is so important to keep your heart strong by exercising.

### **ACTIVITY #1: Your heart is like a squishy ball**

#### Materials:

- A moderately squishy ball that you can hold in your hand. A splash ball, a “dead” worn out tennis ball, or big sponge will also work.
- Stopwatch or clock with a second hand



A splash ball works well for this activity!

1. Hold the ball in one hand and set the timer for 60 seconds.



2. Watch the clock, and give the ball a hard squeeze one time each second. Imagine the ball is your heart working to push blood throughout the blood vessels in your body.
3. After your hand has rested for a few minutes, try squeezing the ball twice as fast, two times each second.

*How did your hand feel after 60 squeezes per minute? What about 120 squeezes?* Your heart muscle works very hard to squeeze or pump blood throughout your body every minute of every day! 60 squeezes per minute represents a **resting heart rate**, the number of times the heart beats every minute while a person is at rest (not exercising). Many things affect resting heart rate including a person's age and level of physical fitness. The heart beats faster and harder during exercise. Regular exercise will strengthen your heart muscle so it is easier for it to do its very important job!

Can you exercise for at least 60 minutes each day of the week? Monitor your pulse and discover the effect that exercise has on your heart rate.

## **ACTIVITY #2: Keep your heart in shape**

### Materials:

- The activity sheet shown below
- Pen or pencil

How to check your radial pulse: Place your index and middle fingers on the inside of your wrist above your thumb. Press gently until you feel the beat under your fingertips.

1. Keep track of your physical activity for one week and see if you are able to exercise 60 minutes every day. Choose activities that are fun for you, like bike riding, jogging, tennis, soccer, hopping, jump rope, dancing, or skipping.
2. Before exercising, check your resting pulse. Do this after sitting quietly for 15 minutes. Count the number of beats for 15 seconds and multiply by 4 to get your resting heart rate: \_\_\_\_\_
3. Check your pulse rate again immediately after exercising, and note the difference: \_\_\_\_\_
4. To take it a step further: continue to exercise and monitor your pulse rate before and after exercising for one month. See if your resting heart rate changes.

<b>Day</b>	<b>Activities – list each activity and number of minutes for each</b>	<b>Minutes – total minutes/day</b>
<b>Sunday</b>		
<b>Monday</b>		
<b>Tuesday</b>		
<b>Wednesday</b>		
<b>Thursday</b>		
<b>Friday</b>		
<b>Saturday</b>		



*Did you reach the recommended goal of at least 60 minutes of activity each day?*

*How was your resting heart rate different than your heart rate right after exercising?*

When you exercise, your heart will beat faster and harder. Increased **circulation** (blood flow) is needed to meet the body's need for more blood and oxygen when you are working hard.

Over time, as you become more physically fit, your heart gets stronger and works more efficiently. The resting heart rate will get lower because a stronger heart can pump more blood with each beat. Fewer beats are needed to do the job. Other changes you may notice with improved fitness include your ability to take deeper breaths and maybe even weight loss as you use more calories. Regular exercise can also help to decrease blood pressure and lower blood sugar, fats, and cholesterol.



## **ADDITIONAL RESOURCES**

### **Books available from the Washoe County Library System:**

[\*Body Talk: The Straight Facts on Fitness, Nutrition & Feeling Good About Yourself!\*](#) by Ann Douglas and Julie Douglas

[\*Choose Good Food! My Eating Tips\*](#) by Gina Bellisario

[\*The Circulatory System\*](#) by Christine Taylor-Butler

[\*Eat Healthy, Feel Great\*](#) by William Sears, M.D.

[\*Fitness Math\*](#) by Kate Marsico

[\*The Girl's Fitness Guide\*](#) by Gheorghe Muresan

[\*Healthy Foods from A to Z = Comida sana de La A a la Z\*](#) by Stephanie Maze

[\*The Heart and Blood\*](#) by Carol Ballard

[\*Hop, Throw, Play: Build Your Skills Every Day!\*](#) by Rebecca Sjonger

[\*How Does Your Heart Work?\*](#) by Don Curry

[\*How To Choose Foods Your Body Will Use\*](#) by Rebecca Sjonger

[\*Keeping Healthy\*](#) by Brian J. Knapp

[\*Move Your Body: My Exercise Tips\*](#) by Gina Bellisario

[\*Mayo Clinic Kids' Cookbook: 50 Favorite Recipes for Fun and Healthy Eating\*](#) by Mayo Clinic

[\*Meditation is an Open Sky; Mindfulness for Kids\*](#) by Whitney Stewart



[\*The Monster Health Book: A Guide To Eating Healthy, Being Active, & Feeling Great For Monsters & Kids!\*](#) by Edward Miller

[\*My Healthy Body\*](#) by Liza Fromer

[\*Sports & Fitness: How to Use Your Body and Mind to Play and Feel Your Best\*](#) by Therese Kauchak Maring

[\*Start Sweating! A Kids' Guide to Being Active\*](#) by Rachelle Kreisman

[\*Ultimate Body-Pedia: An Amazing Inside-out Tour of the Human Body\*](#) by Christina Wilsdon

### **Videos:**

American Heart Association, "Kids Heart Challenge Heart Facts" [https://youtu.be/2PFWpd\\_pxm8](https://youtu.be/2PFWpd_pxm8)

Healthfirst NY, "How Exercise Improves Heart Health – Healthfirst Healthy Living"  
<https://youtu.be/i70k0xFWILQ>

SciShow Kids, "How to Feel Your Heart Beat" <https://youtu.be/tF9-jLZNM10>

### **Websites:**

American Academy of Pediatrics, [healthychildren.org](https://www.healthychildren.org), Kids Need Fiber: Here's Why and How  
<https://www.healthychildren.org/English/healthy-living/nutrition/Pages/Kids-Need-Fiber-Heres-Why-and-How.aspx>

American Academy of Pediatrics, [healthychildren.org](https://www.healthychildren.org), Healthy Living  
<https://www.healthychildren.org/english/healthy-living/pages/default.aspx>

The Nemours Foundation, Kids Health, Staying Healthy  
<https://kidshealth.org/en/kids/stay-healthy/?WT.ac=k-nav-stay-healthy>

National Institutes of Health, National Heart, Lung, and Blood Institute, Heart-Healthy Living  
<https://www.nhlbi.nih.gov/health-topics/heart-healthy-living>

