



[KidsHealth.org/classroom](http://KidsHealth.org/classroom)

## Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

## Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards:  
<http://www.cdc.gov/healthyschools/sher/standards/index.htm>

These activities will help students understand why adopting and maintaining heart-healthy habits is so important.

## Related KidsHealth Links

### Articles for Teens:

**Heart and Circulatory System**  
[TeensHealth.org/en/teens/heart.html](http://TeensHealth.org/en/teens/heart.html)

**Blood**  
[TeensHealth.org/en/teens/blood.html](http://TeensHealth.org/en/teens/blood.html)

**Hypertension (High Blood Pressure)**  
[TeensHealth.org/en/teens/hypertension.html](http://TeensHealth.org/en/teens/hypertension.html)

**Health problems that can affect the heart**  
[TeensHealth.org/en/teens/diseases-conditions/heart](http://TeensHealth.org/en/teens/diseases-conditions/heart)

**When Being Overweight Is a Health Problem**  
[TeensHealth.org/en/teens/obesity.html](http://TeensHealth.org/en/teens/obesity.html)

**Why Exercise Is Wise**  
[TeensHealth.org/en/teens/exercise-wise.html](http://TeensHealth.org/en/teens/exercise-wise.html)

**MyPlate Food Guide**  
[TeensHealth.org/en/teens/myplate.html](http://TeensHealth.org/en/teens/myplate.html)

**How Much Food Should I Eat?**  
[TeensHealth.org/en/teens/portion-size.html](http://TeensHealth.org/en/teens/portion-size.html)

**What Is Cholesterol?**  
[TeensHealth.org/en/teens/cholesterol.html](http://TeensHealth.org/en/teens/cholesterol.html)

### Resources for Teachers:

**Cardiomyopathy Special Needs Factsheet**  
[KidsHealth.org/en/parents/cardiomyopathy-factsheet.html](http://KidsHealth.org/en/parents/cardiomyopathy-factsheet.html)

**Congenital Heart Defects Special Needs Factsheet**  
[KidsHealth.org/en/parents/heart-defects-factsheet.html](http://KidsHealth.org/en/parents/heart-defects-factsheet.html)

**Hemophilia Special Needs Factsheet**  
[KidsHealth.org/en/parents/hemophilia-factsheet.html](http://KidsHealth.org/en/parents/hemophilia-factsheet.html)

**Sickle Cell Disease Special Needs Factsheet**  
[KidsHealth.org/en/parents/sickle-cell-factsheet.html](http://KidsHealth.org/en/parents/sickle-cell-factsheet.html)

## Discussion Questions

*Note: The following questions are written in language appropriate for sharing with your students.*

1. What does the heart do? How do its structures help it pump and distribute blood?
2. The heart and circulatory system contain different kinds of blood vessels - mainly arteries, veins, and capillaries. What does each do?
3. Why is it so important to try to keep the heart and circulatory system healthy? What problems can people have? What can you do to maintain good cardiovascular health?



## Activities for Students

*Note: The following activities are written in language appropriate for sharing with your students.*

### Surgeon General for a Day

#### Objectives:

Students will:

- Learn the effects that certain behaviors can have on cardiovascular health
- Gain an understanding of the value of public health campaigns
- Advocate for change in their school community

#### Materials:

- Computer with Internet access
- Pencil or pen and paper, or computer word processing program and printer

#### Class Time:

60 minutes

#### Activity:

Here's part of the U.S. surgeon general's job description, according to SurgeonGeneral.gov: "As the nation's doctor, the surgeon general provides Americans with the best scientific information available on how to improve their health and reduce the risk of illness and injury."

Now imagine that you're the surgeon general. First, read through the TeensHealth.org articles related to the cardiovascular system, then write a letter to U.S. high school students explaining why it's so important to eat a healthy diet and be active every day.

Or, if you don't think the surgeon general would be influential among teens, think of a person whose advice teens would take. It could be anyone from an athlete to an actor. Then write a message from this person encouraging high school students to adopt heart-healthy habits.

Make sure to explain how certain healthy behaviors can help prevent specific health problems related to the heart and cardiovascular system. Research and include statistics that you think will make students stop and think - and make positive changes.



## Complete Cardio

### Objectives:

Students will:

- Learn the basics about the parts and functions of the circulatory system.

### Materials:

- "Complete Cardio" handout and pencil or pen
- Computer with Internet access

### Class Time:

30 minutes

### Activity:

Make sure you know the basics about how the heart and circulatory system work by completing the "Complete Cardio" handout. You can use the TeensHealth.org article, Heart and Circulatory System, as a guide.

### Extensions:

List ways to help prevent high blood pressure and high cholesterol levels. Turn your tips into a reminder sheet for the whole family, to put on your fridge at home.



## Heart Parts

### Objectives:

Students will:

- Learn the basic parts and structure of the heart

### Materials:

- "Heart Parts" handout and pencil or pen
- Computer with Internet access

### Class Time:

30 minutes

### Activity:

Label the parts of the heart in the "Heart Parts" handout. You can use the TeensHealth.org article, Heart and Circulatory System, as a guide.

### Extension:

Write an essay explaining how blood travels through the heart and throughout the body. Start in the right atrium where the blood enters the heart and end with the vena cava veins returning blood to the heart - one complete cardiac cycle.

## Reproducible Materials

### Handout: Heart Parts

[KidsHealth.org/classroom/9to12/body/systems/cardiovascular\\_handout1.pdf](http://KidsHealth.org/classroom/9to12/body/systems/cardiovascular_handout1.pdf)

### Handout: Heart Parts Answer Key

[KidsHealth.org/classroom/9to12/body/systems/cardiovascular\\_handout2.pdf](http://KidsHealth.org/classroom/9to12/body/systems/cardiovascular_handout2.pdf)

### Handout: Complete Cardio

[KidsHealth.org/classroom/9to12/body/systems/cardiovascular\\_handout3.pdf](http://KidsHealth.org/classroom/9to12/body/systems/cardiovascular_handout3.pdf)

### Handout: Complete Cardio Answer Key

[KidsHealth.org/classroom/9to12/body/systems/cardiovascular\\_handout4.pdf](http://KidsHealth.org/classroom/9to12/body/systems/cardiovascular_handout4.pdf)



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Complete Cardio

Instructions: Complete each fact about the cardiovascular system using terms from the Word Bank

### Word Bank

alveoli

capillaries

pulmonary circulation

ventricles

arteries

chambers

systemic circulation

atria

hypertension

veins

1. The heart has four \_\_\_\_\_ that are enclosed by thick, muscular walls.
2. The upper part of the heart is made up of two chambers, called the right and left \_\_\_\_\_, which receive the blood entering the heart.
3. The bottom part of the heart is divided into two chambers, called the right and left \_\_\_\_\_, which pump blood out of the heart.
4. \_\_\_\_\_ is a short loop from the heart to the lungs and back again.
5. \_\_\_\_\_ sends blood from the heart to all the other parts of the body and back again.
6. Blood vessels that carry blood away from the heart are called \_\_\_\_\_.
7. Blood vessels that carry blood back to the heart are called \_\_\_\_\_.
8. A network of tiny \_\_\_\_\_ connects the arteries and veins, delivers nutrients and oxygen to the cells, and removes waste products such as carbon dioxide.
9. In the lungs, gases are exchanged between capillary walls and millions of tiny air sacs called \_\_\_\_\_.
10. High blood pressure is also called \_\_\_\_\_.



## Complete Cardio Answer Key

### Word Bank

alveoli

capillaries

pulmonary circulation

ventricles

arteries

chambers

systemic circulation

atria

hypertension

veins

1. The heart has four chambers that are enclosed by thick, muscular walls.
2. The upper part of the heart is made up of two chambers, called the right and left atria, which receive the blood entering the heart.
3. The bottom part of the heart is divided into two chambers, called the right and left ventricles, which pump blood out of the heart.
4. Pulmonary circulation is a short loop from the heart to the lungs and back again.
5. Systemic circulation sends blood from the heart to all the other parts of the body and back again.
6. Blood vessels that carry blood away from the heart are called arteries.
7. Blood vessels that carry blood back to the heart are called veins.
8. A network of tiny capillaries connects the arteries and veins, delivers nutrients and oxygen to the cells, and removes waste products such as carbon dioxide.
9. In the lungs, gases are exchanged between capillary walls and millions of tiny air sacs called alveoli.
10. High blood pressure is also called hypertension.

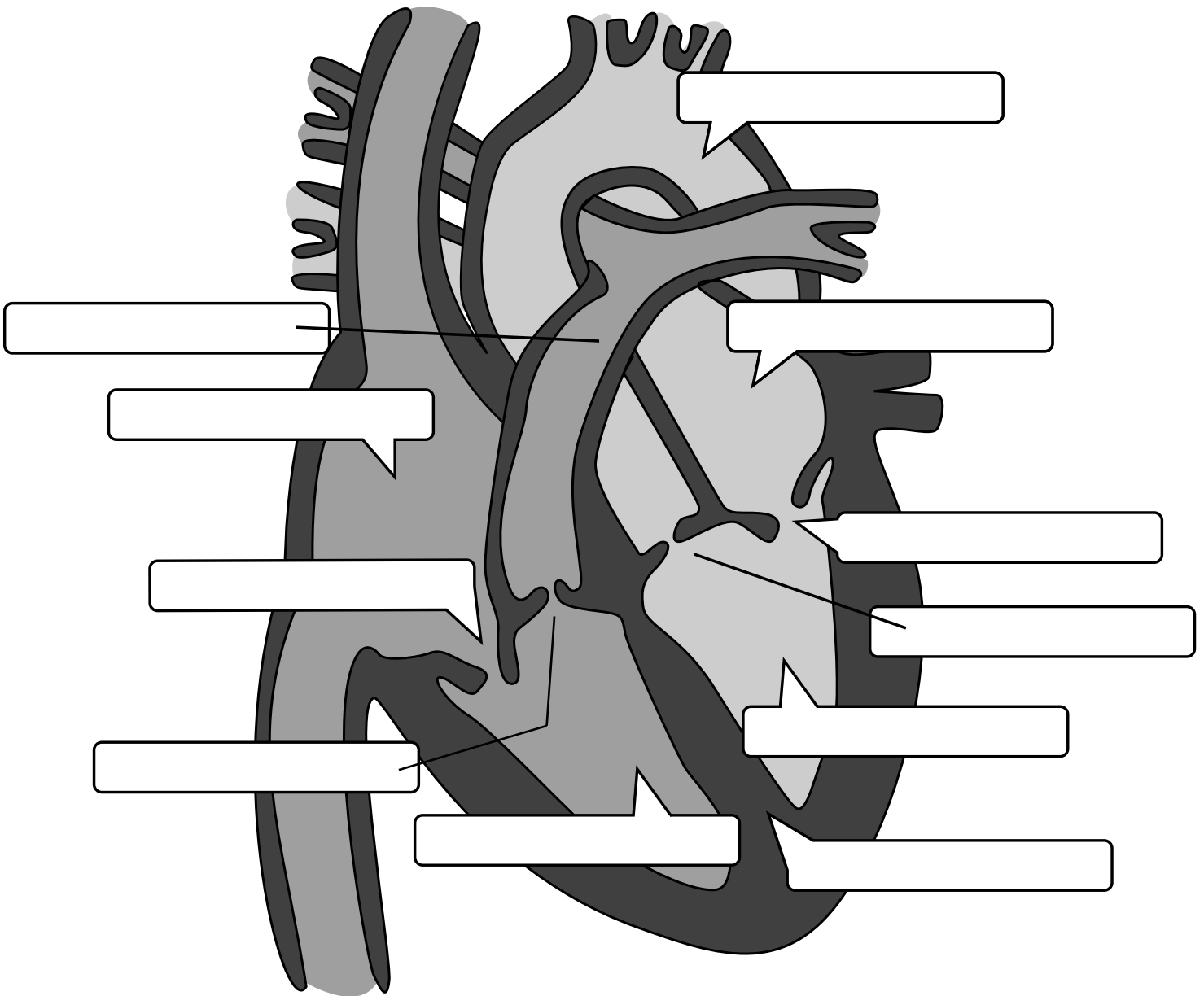


Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Heart Parts

Instructions: Label the parts of the heart.





## Heart Parts Answer Key

