



Blood Pressure- Are you at Risk?

Heart Disease is of great concern to many students, even young men.

The objective for this lesson is to help you become conscious of what your blood pressure is and how to maintain good health. You will learn basic facts about the circulatory system, define key words about blood pressure, and explore healthy dietary guidelines. The lesson will utilize the disciplines of reading, mathematics, science, and writing.

First, explore some facts about the heart. [The Heart](#)

- Read article from the Associated Press: “Younger Men Face Blood Pressure Risk”. [Blood Pressure Article](#).
- Check your blood pressure. Where do you fit in regard to the scale mentioned in the newspaper article? Are you in optimal range? Are you high – normal or stage I hypertension?
- Read the article from the [American Heart Association](#)
- Write definitions on worksheet. Discuss factors that have an effect on blood pressure and having a healthy heart in general: ***Heredity, Exercise, Emotional Stress, Diet, Smoking***. Get referrals to local health resources if you are in need of health advice regarding your blood pressure.

Your teacher may assign an essay and math activities.

Other Sources to Investigate

A. [The Heart](#)

B. [Blood Pressure Brochure](#)

AALL Internet Based Lesson Plan on Blood Pressure by Dean Sandberg and Maureen Hoyt, ACYR

I. Teacher's Page

A. Teaching Plan

1. Lesson Title: **Blood Pressure**
2. Learning Level ABE III
3. Arizona Standard(s) and Indicator(s)

Reading ABE II and III

Indicator C Applies reading skills to interpret functional and informational text, e.g., consumer information, newspapers, civics documents, science publications

Summarizes the main idea and supporting detail in text and relates to other sources, life experiences, and other topics.

Math ABE II

Indicator B 1 Analyzes data in tables, charts, and graphs.

Math ABE III

A5: Solves real life math problems involving ratios, proportions, and percentages

Writing ABE II and III

Indicator B: Applies conventions of grammar and usage to complete a variety of writing tasks

ABE Science

D 4 Understands the major functions of human Body Systems

4. Learning Context: family member
5. Lesson Overview

Heart Disease is of great concern to many students, even young students.

The objective for this lesson is to help students become conscious of blood pressure for maintaining good health. The students will learn basic facts about the circulatory system, ([The heart](#)) define key words about blood pressure, and explore healthy dietary guidelines. The lesson will utilize the disciplines of reading, mathematics, science, and writing

B. Instruction :Materials needed: worksheets, brochure downloaded from Internet, articles downloaded from Internet, blood pressure cuffs

1. *Warm-up* Share briefly as a class what the students know about blood pressure and heart disease. Explain the lesson's objectives.
2. *Student Activity:* Class 1 Direct students to do the following either alone or in a small group (2 hours). You may want different groups of students to do the activities in staggered times, or read the article out loud, or show the brainpop selection on to the group if you have an LCD. Read article from the Associated Press: "Younger Men Face Blood Pressure Risk". [Blood Pressure Article](#)

Read the article from the American Heart Association [About High Blood Pressure](#)

Have students write definitions on [Student Worksheet](#). Review answers. You might want to have students look up one each and share the answers.

- Have the blood pressure of each student checked. Ask them, "Where do you fit in regard to the scale mentioned in the newspaper article?" "Are you in optimal range?" "Are you high – normal or stage I hypertension?"
- Discuss factors that have an effect on blood pressure and having a healthy heart in general : Heredity, Exercise, Emotional Stress, Diet, Smoking. Give referrals to local

health resources if the students are in need of health advice regarding their blood pressure.

- In the next class, ask students to complete the [Math Activity](#). Review answers. (1 hour)
- (1-2 hours) At another time, have students read dietary guidelines. In order to discover what a healthy diet is

a. click on <http://az-aall.org>. Then, click on “AALL Internet-Based Lesson Links”, and from there, click on “Nutrition Lesson”. Find the “Food Guide Pyramid”. Read “The Dietary Guidelines for Americans”

or b. [Blood Pressure Brochure](#)

Ask: What types of foods should we eat more of in order to maintain a healthy diet? What kinds of foods should you avoid? Discuss

Instruct students to write essay see essay [form](#) (for ABE 1 and II, ask for a paragraph see paragraph [form](#))

Write a 250 word essay on the following topic:

In order to do the best that I can to maintain a healthy diet, this is what I need to do.

or

There are three ways to improve my blood pressure. (essay form)

3. *Post Assessment* (check for level of performance re standards)

Check Student Worksheets and assess essay/paragraph according to holistic scoring

4. *Reflective Exercise/Wrap up*

Share findings and lessons learned in class. Perhaps have students share essays.

Branching Out

On the internet, explore some facts about the heart

A. [Blood Pressure Brochure](#)

AALL Lesson: Blood Pressure Student Paragraph

Name _____

Student Writing Area

A. Introduction Sentences

1. Give a definition of blood pressure

2. Tell one thing that can cause high blood pressure

B. Body Sentences

1. Refer to the sentence above. Tell one thing that can be changed to lower blood pressure.

2. Tell a detail about #1

3. Tell another thing that can be changed to improve blood pressure

4. Tell a detail about # 3.

C. Closing Sentence

1. Tell why it is important to have good blood pressure.

AALL Lesson on Blood Pressure Student Worksheet

Find the meanings of the following terms from the article. You may find the definitions in a human anatomy book or any good dictionary, or go to an on-line dictionary [Webster on line](#)

Blood pressure _____

Hypertension _____

Systolic Pressure _____

Diastolic Pressure _____

Optimal _____

Coronary _____

Cardio Vascular _____

Write what is considered good or optimal blood pressure.

What is your blood pressure?

Math Questions on Blood Pressure Lesson

Questions 1-5 are based on the article, “Younger Men Face Blood Pressure Risk”

1. The article states that 25 years after the study had been taken, 197 of the men had died of coronary heart disease, 257 of cardiovascular disease and 759 of all causes. What is the total number of men who had died?
2. Of the original 10,874, at the time the article was written, how many participants were still alive?
3. According to the article, life expectancy was shortened by 2.2 years for men with high-normal blood pressure and 4.1 years for those with stage 1 hypertension. If the average life expectancy for men in America is 75 years, how long can those with high-normal blood pressure expect to live? How about those with stage 1 hypertension?
4. Over the 25 years the study was taken, what is the approximate average of men who had died per year?
5. The article tells us that almost 62 percent of those studied had high-normal blood pressure or stage 1 hypertension. Of the 10,874 Chicago men studied, approximately how many men is this?

Extra Credit

Bill Schmidt went to his physician to be treated for high blood pressure. The Physician prescribed medication. After two months, having taken the medication and adjusting his diet, Bill returned to the doctor’s office. His blood pressure was measured at 135/82. This represented a 12% drop in systolic pressure and a 9% drop in diastolic pressure. Rounding to the nearest whole number, what was Bill’s first blood pressure reading?

Mathematics Key

1. $197+257+759=1,213$
2. $10,874-1,213=9,661$
3. $75.0-2.2=72.8$ years
 $75.0-4.1=70.9$ years
4. $9,661/25=386.44$, approximately 386
5. $10,874 \times 0.62=6,741.88$, approximately 6,742

Extra Credit

Systolic: $135/0.88=153.4$

Diastolic: $82/0.91=90.1$

The original reading was 153/90

AALL Lesson: Blood Pressure Student Essay

Name _____

Student Outline

A. Introductory Paragraph

1. Give a definition of blood pressure
2. Tell one **three behaviors** that can cause high blood pressure

B. Body Paragraphs

A. Refer to the first behavior. Tell one thing that can be changed pressure. Tell a detail about this

Tell another thing that can be changed about the first behavior
Give a specific example.

Tell another thing that can be changed about the first behavior
Give a specific example.

B. Refer to the second behavior. Tell one thing that can be changed. Give a detail or example about this

Tell another thing that can be changed about the first behavior
Give a specific example.

C. Refer to the third behavior. Tell one thing that can be changed. Give a detail or example about this

Tell another thing that can be changed about the first behavior
Give a specific example.

C. Closing Paragraph

Summarize your points and say why it is important to be aware of blood pressure. (two sentences)

