

# Understanding Blood Pressure



by Ron Borkowicz, Ph.D.

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## Blood Pressure

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# Suggestions For Using This Mini-Unit

This resource was developed by a National Teacher of the Year who taught at the middle school, high school and university levels. One of the primary goals when developing this resource was to **make everything easier for the teacher**. All of the research and time-consuming work is already done. The only thing that a teacher needs to do is decide on the level of difficulty for the students and make copies at the copy machine. A description of each component follows.

## Article: Blood Pressure

In addition to describing the health problems brought about by high blood pressure, this article provides recommendations that can help the readers to reach and to maintain a healthy blood pressure. The information is presented in a manner which is easy for the students to understand.

Many teachers who have been using these Mini-Units for their students have found another use for the articles. They make copies of the article (along with one of the puzzles) and distribute them to the staff as part of their Worksite Wellness program.

## Educational Puzzles

There are four levels of Crossword puzzles and five levels of Word Search puzzles. The puzzles are arranged with Level One being the easiest to complete and the highest level being the most difficult.

The puzzles are an entertaining way to introduce the students to the vocabulary terms that will be included in a lesson and help to reinforce reading, spelling and comprehension skills. They can also be given to students who finish their classroom work early or to study hall students who say that they have “nothing to do.” All of the puzzles come with an Answer Key.

## Tests and Review Questions

Because each Mini-Unit is designed for multiple grade levels, there are several levels of Tests and Review Questions. Like the Educational Puzzles, the higher the level, the more difficult the material. **In addition to using as standard assignments, Review Questions can be used as alternate work for homebound students, for non-participants in gym class, for make-up work due to an absence, for extra credit, etc.** All of the Tests and Review Questions come with an Answer Key.

## Worksheets

The three Worksheets levels are similar to the Tests and Review Questions but are arranged to be easier for the students to complete. Each Worksheet is arranged so that the questions are in the same order as the information presented in the article. This is especially useful if using the Worksheets as explained in the Teacher Lesson Plan. All of the Worksheets come with an Answer Key.

## Teacher Lesson Plan

This Lesson Plan can be used by the classroom teacher for a daily class or it can be set aside for a substitute teacher who is not familiar with the topic.



# Understanding Blood Pressure

According to the National Institutes of Health, one out of every three American adults is affected by high blood pressure. Adding to this problem, many of these individuals do not realize that they are hypertensive. That is because high blood pressure does not have any symptoms. For some unfortunate individuals, the first warning sign is a fatal heart attack or stroke. Hence, it would be wise for all of us to know at least the basic information about this silent killer.

## What is Blood Pressure?

Blood pressure is defined as the force exerted against the walls of the arteries. When the heart contracts (beats), the blood pumped out causes a surge of pressure in the already blood-filled arteries. The walls of the arteries expand to accommodate this added volume. The blood pressure during the contraction is called the systolic blood pressure. Although reduced, pressure in the arteries still exists between contractions. This is called the diastolic blood pressure. When either the systolic or diastolic pressure exceeds that which is considered normal for a

particular age group, an individual is considered to have high blood pressure or hypertension.



The borderline (getting to be serious) systolic blood pressure for an adult is 140 mg/dl. The borderline diastolic blood pressure for an adult is 90 mg/dl. It is not necessary for both of these numbers to exceed the above-mentioned limits to be considered hypertensive. If either one of these numbers rises above the borderline number, an individual is said to have high blood pressure. It should be noted that for children, the borderline blood pressure levels are lower and must be adjusted for their age.

Are you completely safe if both of your numbers are below the borderline? Not necessarily. Recent research has indicated that many of the individuals who have a blood pressure of 120/80 at age 30 develop a blood pressure of 140/90 by

age 50. So it is highly recommended to practice a healthy lifestyle long before you are 50 years old and diagnosed with hypertension.

## Diagnosing Hypertension

How do you know if you have high blood pressure? You find out by having multiple blood pressure readings over a period of time. These readings should be taken in a controlled, relaxed environment unlike those in stores or pharmacies. Some people even have “white-coat” hypertension where their blood pressure is higher than normal due to the anxiety of having the doctor or nurse take the reading. With the easy-to-use, inexpensive blood pressure equipment available to everyone, you can take the readings yourself. Just be certain to follow the directions that accompany the equipment (sitting down, feet on floor, etc.). Also, be sure to discuss these plans with your doctor.



## Health Problems

If your blood pressure stays high, your arteries will become less elastic due to scarring and hardening. This can lead to serious health problems.

- The heart can become weaker and unable to pump enough blood throughout the body.
- The artery walls can weaken and balloon out (aneurysms) and eventually burst.
- The arteries to the brain can narrow causing a stroke.
- The arteries to the heart can narrow causing a heart attack.
- The arteries to the kidney can narrow causing renal failure.
- The arteries to the eyes can burst leading to vision changes or blindness.

In general, the older Americans get the higher their blood pressure gets. However, it does not have to be this way. Although genetics influence our blood pressure to some degree, lifestyles also play a significant role. Following a healthy lifestyle helps many people delay or even prevent the rise in blood pressure. Here are some recommendations.

## Recommendations

Perform aerobic exercise for at least 30 minutes on three or more days per week. Aerobic exercise can lower both your systolic and diastolic levels. If you do not exercise aerobically, try 30 minutes of moderate activity (walking, raking leaves) even if you divide the activities into three 10-minute segments.



Of course, this activity will also help to keep your weight at a healthy level. Many people who are hypertensive and overweight acquire a normal blood pressure when their weight approaches the proper level for their age, height and gender.

Follow a healthy eating plan that is low in saturated and trans fats. Over time, these fats contribute toward the build-up of plaque in the arteries. This results in narrower and less elastic arteries, both of which raise blood pressure. Also keep your sodium (salt) intake reasonable. In general, Americans consume too much sodium in their diet, sometimes ten times the recommended daily allowance.

Do not use tobacco products as they too cause the arteries to narrow which increases blood pressure. If you drink alcohol, do so in moderation as it can also increase blood pressure.

Learn how to handle those major stressors that come up in our lives. Developing a systematic approach for handling these stressors has health benefits that reach beyond lowering your blood pressure.

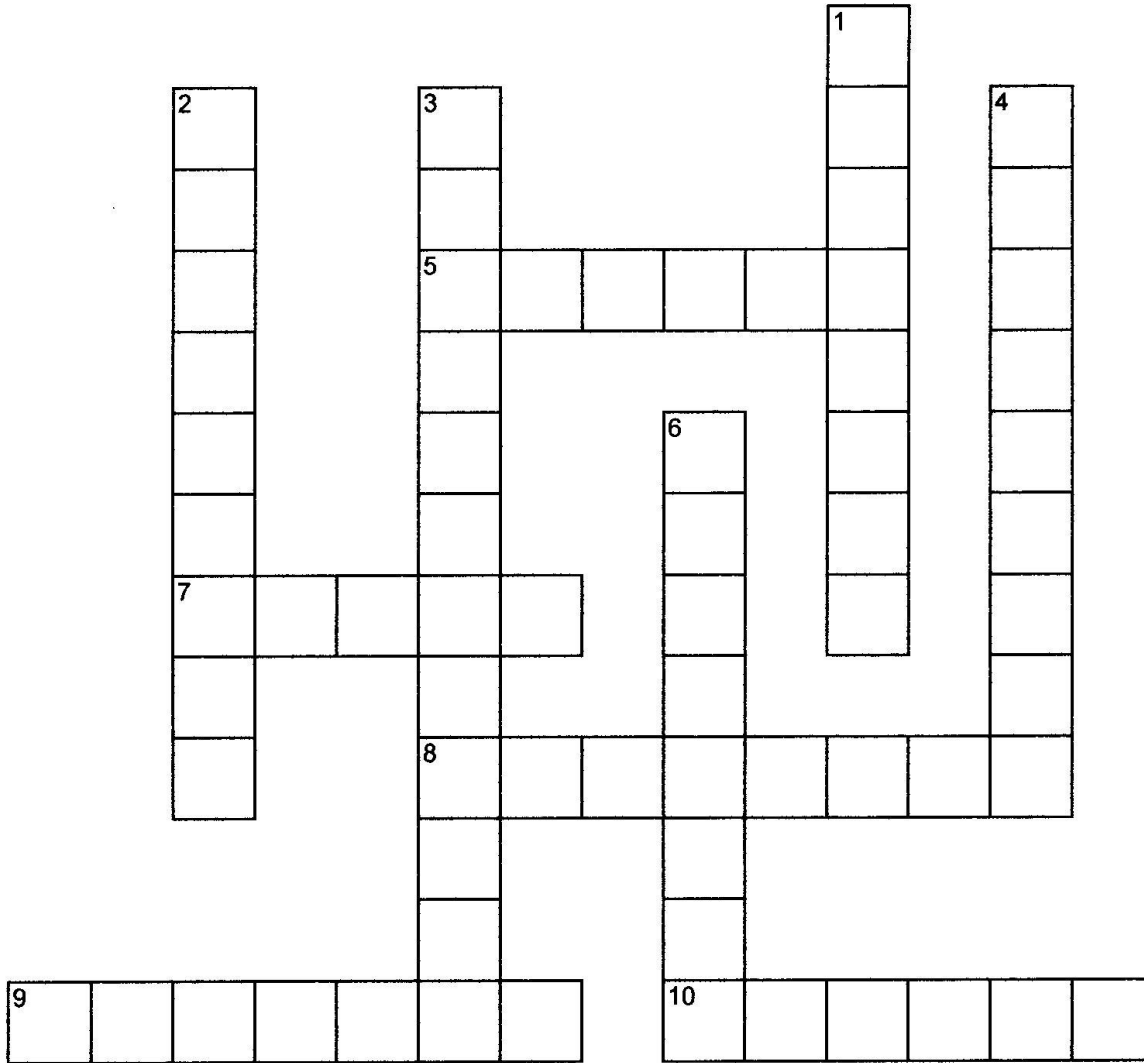
## Conclusion

Making lifestyle changes can be extremely difficult, especially as we get older and are set in our ways. You may be setting yourself up for failure if you attempt to make all of these changes at once. Even two or three changes could be an extremely difficult goal and might add another major stressor to your life. So, start out by changing only one of these lifestyle practices. After you feel confident that you have one of these changes under control, move on to the next one.

Remember, it has taken you a long time to get to your current health status. If you take this into consideration, you will realize that it will take time to make adjustments for a healthier lifestyle and a healthier life.

**NOTE:** These educational resources were created by 3-time TOY Ron Borkowicz, Ph.D. Thanks to the generosity of [Photo Fun Safaris, LLC](#) FREE unlimited reproduction of this material - including via social media - is granted providing it is reproduced in its entirety including the Logo on page one and this notice. [Photo Fun Safaris, LLC](#) creates free apps that contain animal scavenger hunts for ages 5 to adult in Zoos & Aquariums in America. Before following-up on any of the information provided in this article, you should discuss these details with your doctor. For info on the Safaris, go to [www.PhotoFunSafaris.com](http://www.PhotoFunSafaris.com). ©2019

## Blood Pressure - Level One



### Across

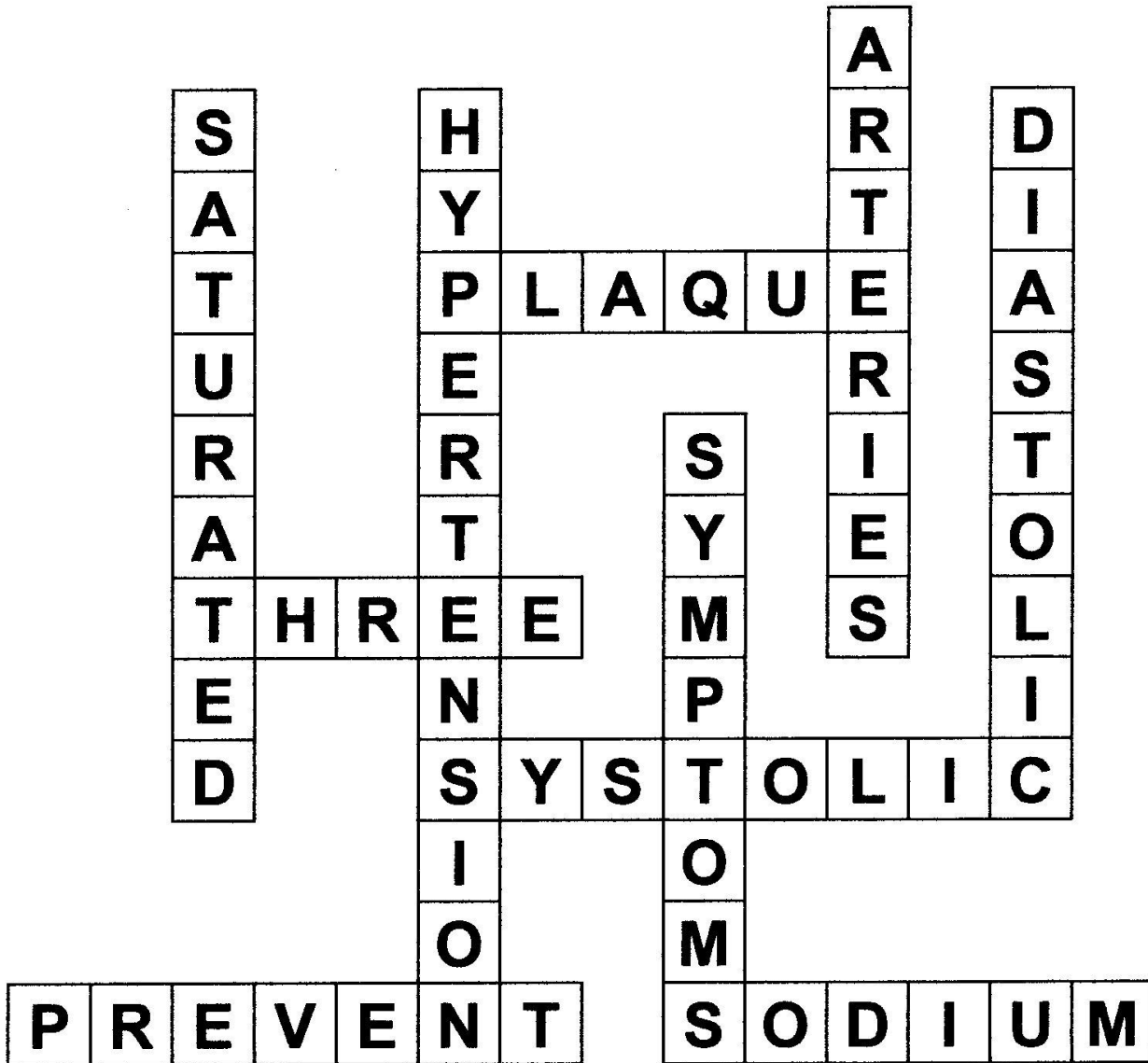
- 5 Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
- 7 One out of \_\_\_\_\_ American adults is affected by high blood pressure.
- 8 The blood pressure during the heart's contraction is called \_\_\_\_\_.
- 9 Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
- 10 Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.

### Down

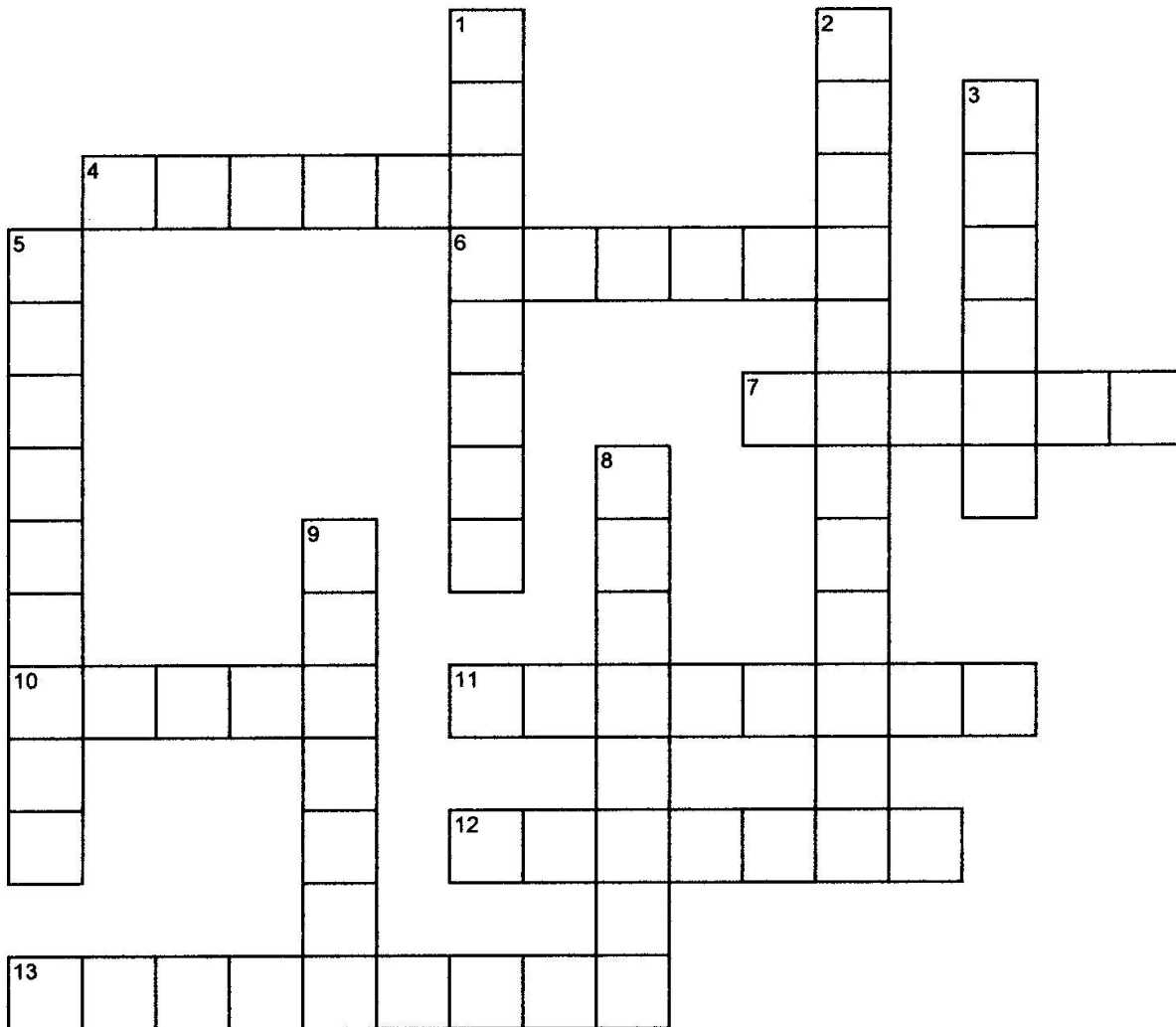
- 1 Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
- 2 One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
- 3 The medical term for high blood pressure is \_\_\_\_\_.
- 4 The blood pressure between the heart's contractions is called \_\_\_\_\_.
- 6 Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.



# Blood Pressure - Level One Solution



## Blood Pressure - Level Two



### Across

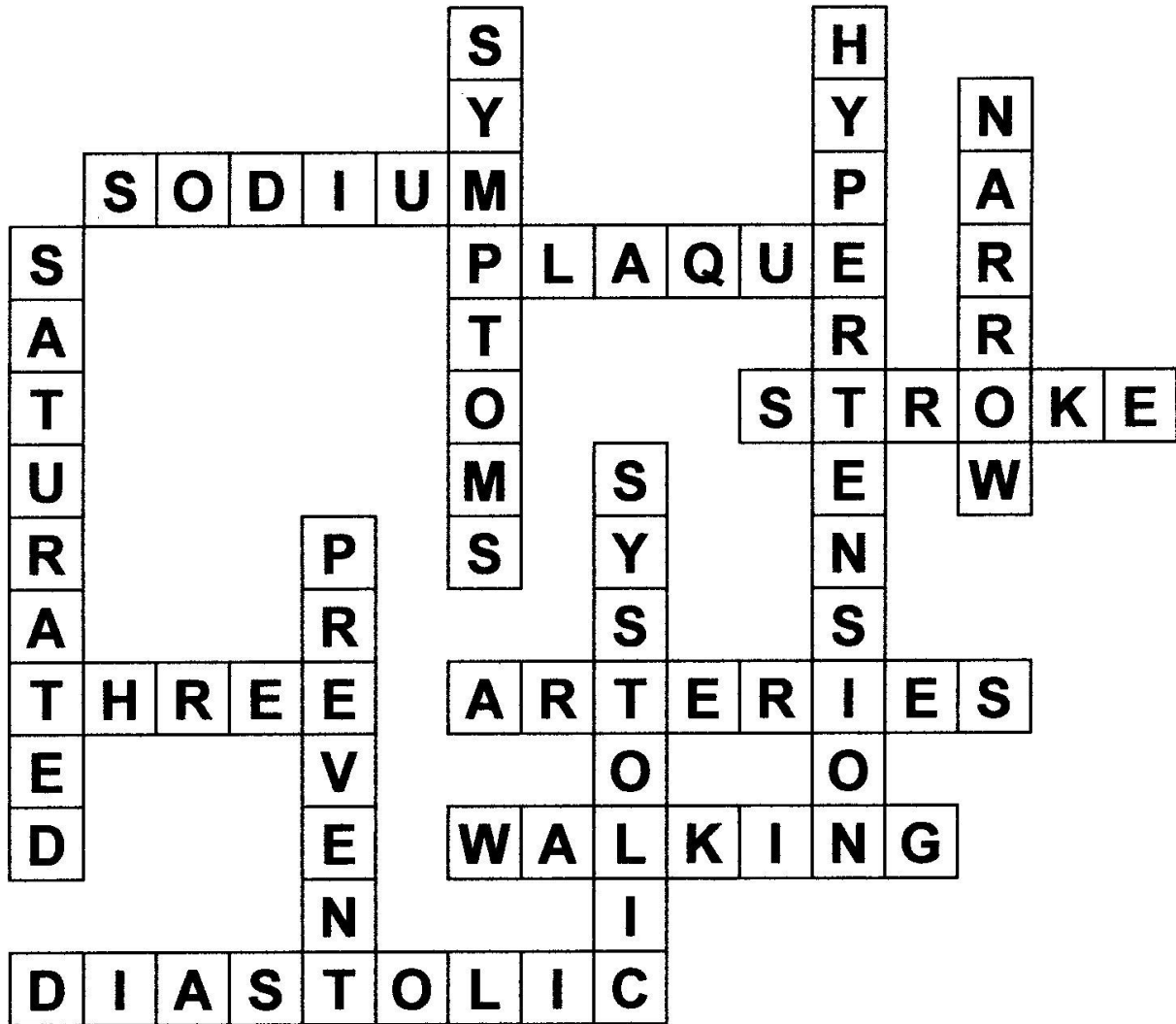
- 4 Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
- 6 Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
- 7 A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
- 10 One out of \_\_\_\_\_ American adults is affected by high blood pressure.
- 11 Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
- 12 One sample of a moderate physical activity is \_\_\_\_\_.
- 13 The blood pressure between the heart's contractions is called \_\_\_\_\_.

### Down

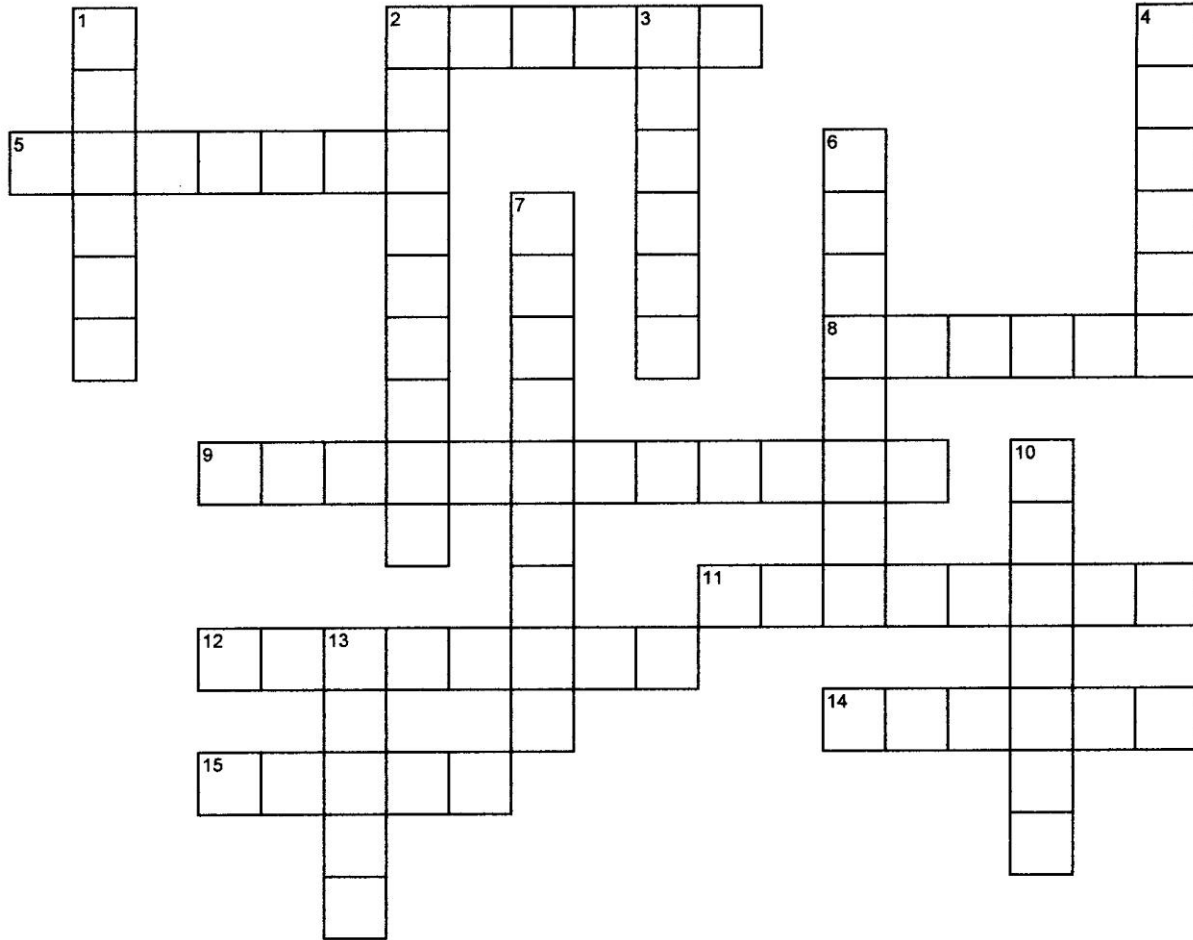
- 1 Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
- 2 The medical term for high blood pressure is \_\_\_\_\_.
- 3 Using tobacco products can cause the arteries to \_\_\_\_\_.
- 5 One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
- 8 The blood pressure during the heart's contraction is called \_\_\_\_\_.
- 9 Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.



# Blood Pressure - Level Two Solution



## Blood Pressure - Level Three



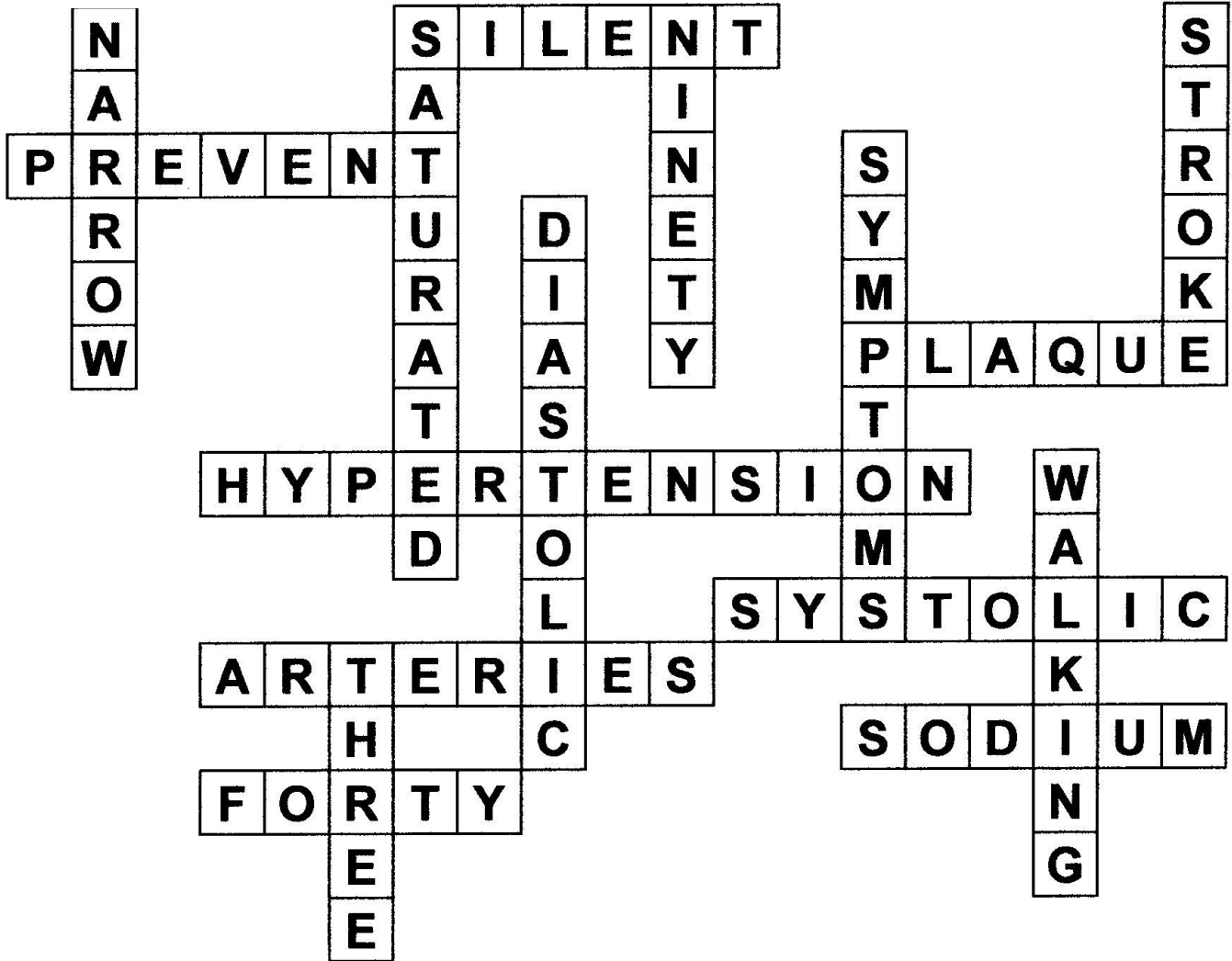
### Across

- 2 Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
- 5 Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
- 8 Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
- 9 The medical term for high blood pressure is \_\_\_\_\_.
- 11 The blood pressure during the heart's contraction is called \_\_\_\_\_.
- 12 Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
- 14 Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
- 15 The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_.

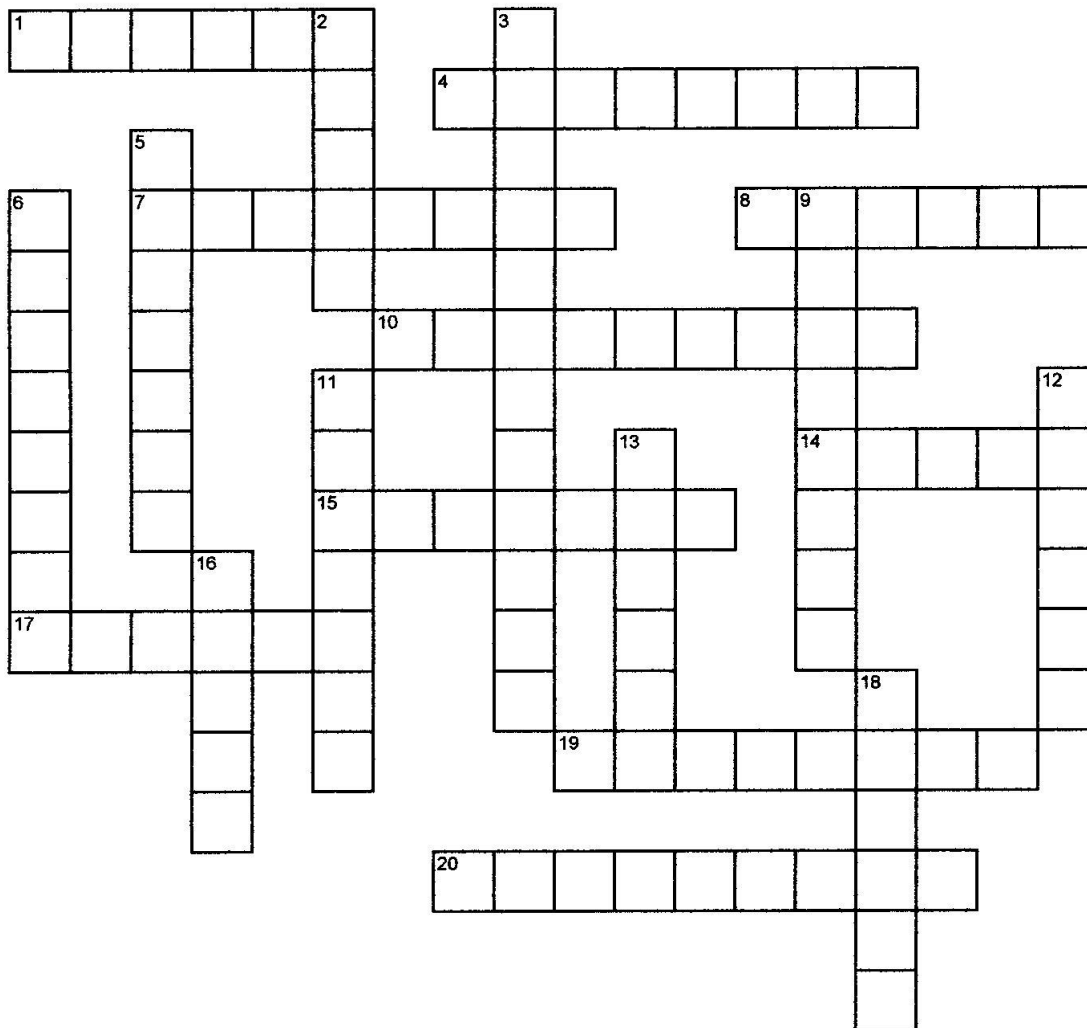
### Down

- 1 Using tobacco products can cause the arteries to \_\_\_\_\_.
- 2 One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
- 3 The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
- 4 A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
- 6 Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
- 7 The blood pressure between the heart's contractions is called \_\_\_\_\_.
- 10 One sample of a moderate physical activity is \_\_\_\_\_.
- 13 One out of \_\_\_\_\_ American adults is affected by high blood pressure.

# Blood Pressure - Level Three Solution



## Blood Pressure - Level Four



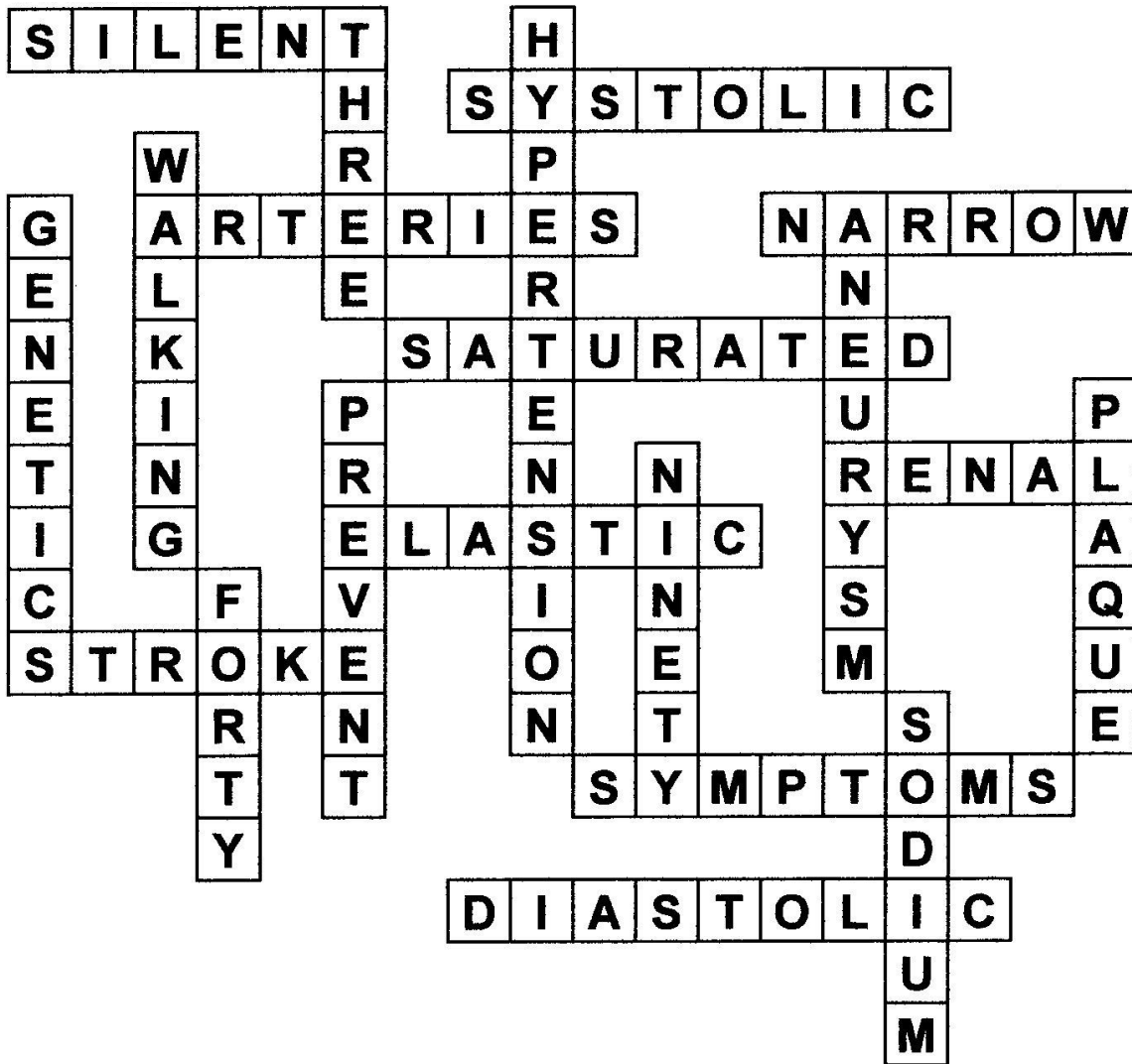
### Across

- 1 Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
- 4 The blood pressure during the heart's contraction is called \_\_\_\_\_.
- 7 Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
- 8 Using tobacco products can cause the arteries to \_\_\_\_\_.
- 10 One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
- 14 A blocked or narrowed artery going to the kidney can cause \_\_\_\_\_ failure.
- 15 If your blood pressure stays high, your arteries will become less \_\_\_\_\_.
- 17 A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
- 19 Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
- 20 The blood pressure between the heart's contractions is called \_\_\_\_\_.

### Down

- 2 One out of \_\_\_\_\_ American adults is affected by high blood pressure.
- 3 The medical term for high blood pressure is \_\_\_\_\_.
- 5 One sample of a moderate physical activity is \_\_\_\_\_.
- 6 In addition to lifestyle, our blood pressure is affected by \_\_\_\_\_.
- 9 A weakened and ballooned-out artery is called an \_\_\_\_\_.
- 11 Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
- 12 Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
- 13 The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
- 16 The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_.
- 18 Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.

# Blood Pressure - Level Four Solution





# Blood Pressure - Level One



V B K R C A L C O H O L T R A N S F A T S Z  
M B W G S A T U R A T E D F A T S D I E T N  
P K B S A L T O B E S E S Y M P T O M S D T  
Z F B L I N D N E S S S T R E S S O R D X R  
D I A S T O L I C K Y P L A Q U E R B Z M R  
W R E N A L F A I L U R E C K I D N E Y L N  
S I L E N T K I L L E R A N E U R Y S M X X  
A E R O B I C E X E R C I S E L H D K R T F  
Y Y L K Z V H E A R T A T T A C K T V X T M  
X K D Y X M O D E R A T E A C T I V I T Y F  
M M B L O O D P R E S S U R E T O B A C C O  
T H I G H B L O O D P R E S S U R E Q J Y N  
Q L R M E D I C A T I O N S T L K W M Y N X  
Y H T L H E A L T H Y L I F E S T Y L E S Q  
L M Z H Y P E R T E N S I V E L X X W X R B  
M X P A N X I E T Y L V H K Z S T R O K E K  
W W A R N I N G S I G N B R A I N K B R G J  
S O D I U M Z M M Z G G E N E T I C S C H L  
N O V E R W E I G H T H E A R T W T J L Z D  
R L H Y P E R T E N S I O N S Y S T O L I C  
L H A R D E N E D A R T E R I E S T Q Y K W  
P P N J C F L Q F A R T E R I E S Y M Y M H

**Aerobic exercise**  
**Alcohol**  
**Aneurysm**  
**Anxiety**  
**Arteries**  
**Blindness**  
**Blood pressure**  
**Brain**  
**Diastolic**

**Diet**  
**Genetics**  
**Hardened arteries**  
**Healthy lifestyles**  
**Heart**  
**Heart attack**  
**High blood pressure**  
**Hypertension**  
**Hypertensive**

**Kidney**  
**Medications**  
**Moderate activity**  
**Obese**  
**Overweight**  
**Plaque**  
**Renal failure**  
**Salt**  
**Saturated fat**

**Silent killer**  
**Sodium**  
**Stressor**  
**Stroke**  
**Symptoms**  
**Systolic**  
**Tobacco**  
**Trans fat**  
**Warning sign**



# Blood Pressure - Level One Solution



V B K R C A L C O H O L T R A N S F A T S Z  
M B W G S A T U R A T E D F A T S D I E T N  
P K B S A L T O B E S E S Y M P T O M S D T  
Z F B L I N D N E S S S T R E S S O R D X R  
D I A S T O L I C K Y P L A Q U E R B Z M R  
W R E N A L F A I L U R E C K I D N E Y L N  
S I L E N T K I L L E R A N E U R Y S M X X  
A E R O B I C E X E R C I S E L H D K R T F  
Y Y L K Z V H E A R T A T T A C K T V X T M  
X K D Y X M O D E R A T E A C T I V I T Y F  
M M B L O O D P R E S S U R E T O B A C C O  
T H I G H B L O O D P R E S S U R E Q J Y N  
Q L R M E D I C A T I O N S T L K W M Y N X  
Y H T L H E A L T H Y L I F E S T Y L E S Q  
L M Z H Y P E R T E N S I V E L X X W X R B  
M X P A N X I E T Y L V H K Z S T R O K E K  
W W A R N I N G S I G N B R A I N K B R G J  
S O D I U M Z M M Z G G E N E T I C S C H L  
N O V E R W E I G H T H E A R T W T J L Z D  
R L H Y P E R T E N S I O N S Y S T O L I C  
L H A R D E N E D A R T E R I E S T Q Y K W  
P P N J C F L Q F A R T E R I E S Y M Y M H

## Blood Pressure - Level Two



V T M B R N S N O I T A C I D E M R H T J B N  
 X T R A N S F A T S N L Y D L O H O C L A Y X  
 Q A N E U R Y S M P Y L F X R O S S E R T S T  
 R Q X V T W L N R S A T U R A T E D F A T S R  
 H K S Y S T O L I C E S E B O F T G H K M L M  
 R V V M R T E I D K A R T E R I E S K Y N X K  
 Z T X T D I A S T O L I C O C C A B O T X C D  
 N H Z D M K H L N E V I S N E T R E P Y H P K  
 L E R U S S E R P D O O L B H G I H R L B K R  
 N L D G E N E T I C S P O V E R W E I G H T N  
 K R Y Q T L A S Z H E A R T A T T A C K W D H  
 X R C W G B H E A L T H Y L I F E S T Y L E S  
 R N L L N N E R U S S E R P D O O L B M J C M  
 C M J J P Y L H Y P E R T E N S I O N R F C N  
 B T Y T E I X N A N G I S G N I N R A W R P F  
 B T T R A E H J S T R O K E T S M O T P M Y S  
 M Q L N N T R E N A L F A I L U R E T L Y T F  
 Z Z F R N P P R E L L I K T N E L I S F L K T  
 B N V T B W Y A E R O B I C E X E R C I S E G  
 H F H P S S E N D N I L B F P M S O D I U M T  
 R Z G F N K I D N E Y E U Q A L P T K V G L R  
 J M S E I R E T R A D E N E D R A H L N T G M  
 T M O D E R A T E A C T I V I T Y K B R A I N

**Aerobic exercise**  
**Alcohol**  
**Aneurysm**  
**Anxiety**  
**Arteries**  
**Blindness**  
**Blood pressure**  
**Brain**  
**Diastolic**

**Diet**  
**Genetics**  
**Hardened arteries**  
**Healthy lifestyles**  
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**Saturated fat**

**Silent killer**  
**Sodium**  
**Stressor**  
**Stroke**  
**Symptoms**  
**Systolic**  
**Tobacco**  
**Trans fat**  
**Warning sign**

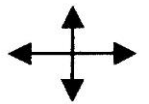
# Blood Pressure - Level Two Solution



V T M B R N S N O I T A C I D E M R H T J B N  
X T R A N S F A T S N L Y D L O H O C L A Y X  
Q A N E U R Y S M P Y L F X R O S S E R T S T  
R Q X V T W L N R S A T U R A T E D F A T S R  
H K S Y S T O L I C E S E B O F T G H K M L M  
R V V M R T E I D K A R T E R I E S K Y N X K  
Z T X T D I A S T O L I C O C C A B O T X C D  
N H Z D M K H L N E V I S N E T R E P Y H P K  
L E R U S S E R P D O O L B H G I H R L B K R  
N L D G E N E T I C S P O V E R W E I G H T N  
K R Y Q T L A S Z H E A R T A T T A C K W D H  
X R C W G B H E A L T H Y L I F E S T Y L E S  
R N L L N N E R U S S E R P D O O L B M J C M  
C M J J P Y L H Y P E R T E N S I O N R F C N  
B T Y T E I X N A N G I S G N I N R A W R P F  
B T T R A E H J S T R O K E T S M O T P M Y S  
M Q L N N T R E N A L F A I L U R E T L Y T F  
Z Z F R N P P R E L L I K T N E L I S F L K T  
B N V T B W Y A E R O B I C E X E R C I S E G  
H F H P S S E N D N I L B F P M S O D I U M T  
R Z G F N K I D N E Y E U Q A L P T K V G L R  
J M S E I R E T R A D E N E D R A H L N T G M  
T M O D E R A T E A C T I V I T Y K B R A I N



## Blood Pressure - Level Three



X X X H Y P E R T E N S I V E Q W L J E S C B  
 G X W R E W T V T B G I S M G K F C L S T G T  
 H N D P S A M T V R M L E U L I C Q L E A E Y  
 E O N C I R J V T A T E I I M D I B Z B F N V  
 A I O I C N M L M I L N R D S N L C V O S E F  
 L S V L R I W K C N A T E O T E O H D T N T R  
 T N E O E N V L Z M S K T S R Y T K X R A I R  
 H E R T X G Z Q Q N T I R B O R S J N A R C N  
 Y T W S E S Y W K R X L A M K G Y B L E T S C  
 L R E A C I Y L K J L L M R E T S Q L H L M Z  
 I E I I I G H K B D J E H H X S M O T P M Y S  
 F P G D B N K Y W R E R U S S E R P D O O L B  
 E Y H L O M O D E R A T E A C T I V I T Y L R  
 S H T Z R J S N O I T A C I D E M L Q K F H L  
 T A D Y E R L T P C F Y G Q H Y M P T Q V W B  
 Y N C T A R D I E T T B N Z F Z T O B A C C O  
 L E Y T E I X N A R W E R U L I A F L A N E R  
 E U C V G J S E I R E T R A D E N E D R A H T  
 S R X N E R U S S E R P D O O L B H G I H B T  
 K Y H P F B L I N D N E S S B L A L C O H O L  
 V S E U Q A L P G S A T U R A T E D F A T S H  
 T M R L H E A R T A T T A C K R L J R J L W D  
 N Q J B D R H L T K N B S T R E S S O R C X D

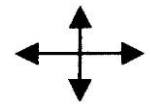
**Aerobic exercise**  
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**Moderate activity**  
**Obese**  
**Overweight**  
**Plaque**  
**Renal failure**  
**Salt**  
**Saturated fat**

**Silent killer**  
**Sodium**  
**Stressor**  
**Stroke**  
**Symptoms**  
**Systolic**  
**Tobacco**  
**Trans fat**  
**Warning sign**

# Blood Pressure - Level Three Solution



X X X H Y P E R T E N S I V E Q W L J E S C B  
 G X W R E W T V T B G I S M G K F C L S T G T  
 H N D P S A M T V R M L E U L I C Q L E A E Y  
 E O N C I R J V T A T E I I M D I B Z B F N V  
 A I O I C N M L M I L N R D S N L C V O S E F  
 L S V L R I W K C N A T E O T E O H D T N T R  
 T N E O E N V L Z M S K T S R Y T K X R A I R  
 H E R T X G Z Q Q N T I R B O R S J N A R C N  
 Y T W S E S Y W K R X L A M K G Y B L E T S C  
 L R E A C I Y L K J L L M R E T S Q L H L M Z  
 I E I I I G H K B D J E H H X S M O T P M Y S  
 F P G D B N K Y W R E R U S S E R P D O O L B  
 E Y H L O M O D E R A T E A C T I V I T Y L R  
 S H T Z R J S N O I T A C I D E M L Q K F H L  
 T A D Y E R L T P C F Y G Q H Y M P T Q V W B  
 Y N C T A R D I E T T B N Z F Z T O B A C C O  
 L E Y T E I X N A R W E R U L I A F L A N E R  
 E U C V G J S E I R E T R A D E N E D R A H T  
 S R X N E R U S S E R P D O O L B H G I H B T  
 K Y H P F B L I N D N E S S B L A L C O H O L  
 V S E U Q A L P G S A T U R A T E D F A T S H  
 T M R L H E A R T A T T A C K R L J R J L W D  
 N Q J B D R H L T K N B S T R E S S O R C X D

# Blood Pressure - Level Four



Y M L Y M P Z Q C Y K N Q B X T Y B T N M M R R L P  
 K M M W G R M Z J V T H K L Y G Z Q C O K X T H T M  
 V B K Q V T G N W K J M H A E V H K V K B N M R W R  
 Z Q P B H Q R T T D U W N N Y A R D S W Y A T C G B  
 G T R W L X Z T G I S E E S R P E Z Q T N T C D M K  
 H N M R R Q G L D E U T N D A R B H Y J R E V C J V  
 G S H B N T H O I R I K E S U L I M Q A V E M D O V  
 Q W E J K K S R Y C N N N L M G T Y E I B R S L X T  
 D X K L B H E S S X E Z I E H O T H S R R B E S H K  
 T C T Q Y T M C F D X A J B R I T N F O H S R C O P  
 L N F H R T I G A S F Y L Y V U E P V Q I W I R D R  
 W T K A B L S R X L N O Y I F T S E M C M L W W V X  
 R F J H O L T E A P O O T T R R R S R Y O L S C N J  
 V P R T E E I N F D Y C I E E W K E E T S A Y G C C  
 G R S Q R A E N P I A N P T E I X I S R T Q I N Z Q  
 W Y E I W R R R D E L Y O I A E X A D U P S C Z P V  
 S N E L B T E T T N H Y G I C C I N R N G D N W T Q  
 R S E R L S A A A N E H H I S D I A A N E M O R J N  
 Y M A U S I R L C T T S B T B N T D I T M Y A O K B  
 R I W U Q E K W C W T O S L L E E N E P L N H L L L  
 N C R D D A W T R O R A B T D A R T R M S R W L S B  
 Y E M O I O L L N E H R C F C A E C R F P K K T J K  
 M V M T X E B P A E B O A K W V W H A E Y G R W F K  
 N N Q R V V T E L M L T L F T L K T T C P O Q M T M  
 X N D T W K Q X S V S I T X H N S F P Y K Y T M P M  
 C N N C H P P N K E Z J S M K V W R R E Y N H L Q M

**Aerobic exercise**  
**Alcohol**  
**Aneurysm**  
**Anxiety**  
**Arteries**  
**Blindness**  
**Blood pressure**  
**Brain**  
**Diastolic**

**Diet**  
**Genetics**  
**Hardened arteries**  
**Healthy lifestyles**  
**Heart**  
**Heart attack**  
**High blood pressure**  
**Hypertension**  
**Hypertensive**

**Kidney**  
**Medications**  
**Moderate activity**  
**Obese**  
**Overweight**  
**Plaque**  
**Renal failure**  
**Salt**  
**Saturated fat**

**Silent killer**  
**Sodium**  
**Stressor**  
**Stroke**  
**Symptoms**  
**Systolic**  
**Tobacco**  
**Trans fat**  
**Warning sign**

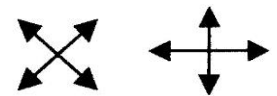


# Blood Pressure - Level Four Solution



Y M L Y M P Z Q C Y K N Q B X T Y B T N M M R R L P  
K M M W G R M Z J V T H K L Y G Z Q C O K X T H T M  
V B K Q V T G N W K J M H A E V H K V K B N M R W R  
Z Q P B H Q R T T D U W N N Y A R D S W Y A T C G B  
G T R W L X Z T G I S E E S R P E Z Q T N T C D M K  
H N M R R Q G L D E U T N D A R B H Y J R E V C J V  
G S H B N T H O I R I K E S U L I M Q A V E M D O V  
Q W E J K K S R Y C N N N L M G T Y E I B R S L X T  
D X K L B H E S S X E Z I E H O T H S R R B E S H K  
T C T Q Y T M C F D X A J B R I T N F O H S R C O P  
L N F H R T I G A S F Y L Y V U E P V Q I W I R D R  
W T K A B L S R X L N O Y I F T S E M C M L W W V X  
R F J H O L T E A P O O T T R R R S R Y O L S C N J  
V P R T E E I N F D Y C I E E W K E E T S A Y G C C  
G R S Q R A E N P I A N P T E I X I S R T Q I N Z Q  
W Y E I W R R R D E L Y O I A E X A D U P S C Z P V  
S N E L B T E T T N H Y G I C C I N R N G D N W T Q  
R S E R L S A A A N E H H I S D I A A N E M O R J N  
Y M A U S I R L C T T S B T B N T D I T M Y A O K B  
R I W U Q E K W C W T O S L L E E N E P L N H L L L  
N C R D D A W T R O R A B T D A R T R M S R W L S B  
Y E M O I O L L N E H R C F C A E C R F P K K T J K  
M V M T X E B P A E B O A K W V W H A E Y G R W F K  
N N Q R V V T E L M L T L F T L K T T C P O Q M T M  
X N D T W K Q X S V S I T X H N S F P Y K Y T M P M  
C N N C H P P N K E Z J S M K V W R R E Y N H L Q M

# Blood Pressure - Level Five



Z Q N O H N I A R B G V M L R L C A N E U R Y S M  
 K G S O B A M T V B R K G D F M I V Y F T T C L R  
 X D R M I E R C R V G Q R L Y T L K D Y E T F G N  
 T G N S O S S D M E D I C A T I O N S I J T M T B  
 R M G L I T N E E J W P R Y J L T P D H F O J L Q  
 P C I L E L P E Z N H K Y X O Y S P T T D G I X M  
 Q X S H S E E M T F E G E H F H A Z T E B N L X L  
 P C G E I R N N Y R K D O R M N I B R G D N L G T  
 Y K N A C U R M T S E C A R U L D A R N Y B H L R  
 H E I L R L Q L P K L P W R Y S T Z E R X T Y F A  
 T V N T E I M D Q A I X Y T T E S S T R R Y Z N N  
 Q I R H X A Q V K H B L P H A E S E Z V E M K T S  
 C S A Y E F Q K N M R Y L C P F R L R N C L R G F  
 I N W L C L A V Z Z K N T E Q N L I D P N C R K A  
 L E N I I A A N M W Y I G Q R J K I E P D S Y T T  
 O T O F B N R E X W V K L W N K K D W S T O R T S  
 T R V E O E T M U I Y G E N E T I C S R L D O W Y  
 S E E S R R E M T Q E K O R T S G N E T G H O L Y  
 Y P R T E P R Y R C A T W M C C C S Y L E C K Y B  
 S Y W Y A L I Y Y Y G L Y W M L S F Y A C D F S K  
 M H E L K Z E H W C F N P P N O P W R A H T J O G  
 V M I E T T S F K D W F L N R T Q T B N L V M D L  
 X F G S H K K C A T T A T R A E H O B A H R R I K  
 C R H S A T U R A T E D F A T S T H S L C T F U M  
 Q N T E R U S S E R P D O O L B H G I H C W F M N

**Aerobic exercise**  
**Alcohol**  
**Aneurysm**  
**Anxiety**  
**Arteries**  
**Blindness**  
**Blood pressure**  
**Brain**  
**Diastolic**

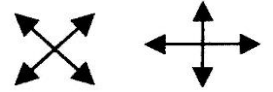
**Diet**  
**Genetics**  
**Hardened arteries**  
**Healthy lifestyles**  
**Heart**  
**Heart attack**  
**High blood pressure**  
**Hypertension**  
**Hypertensive**

**Kidney**  
**Medications**  
**Moderate activity**  
**Obese**  
**Overweight**  
**Plaque**  
**Renal failure**  
**Salt**  
**Saturated fat**

**Silent killer**  
**Sodium**  
**Stressor**  
**Stroke**  
**Symptoms**  
**Systolic**  
**Tobacco**  
**Trans fat**  
**Warning sign**



# Blood Pressure - Level Five Solution



A 15x15 grid of letters with various words highlighted in blue. The words are:

- NEURYSM (row 1, col 6)
- SOB (row 2, col 1)
- NIARB (row 2, col 4)
- SOSSD (row 3, col 1)
- MEDICATIONS (row 3, col 4)
- GLITNE (row 4, col 1)
- ELPEZ (row 5, col 1)
- SEEMTFEGE (row 6, col 1)
- SEZVEM (row 7, col 1)
- CAVZZKNT (row 8, col 1)
- EXWVKLWNK (row 9, col 1)
- GENETICS (row 10, col 4)
- REMTQEKORTS (row 11, col 1)
- YRCATWMCSSYLECKY (row 12, col 1)
- ALYYGLY (row 13, col 1)
- SATURATEDFATS (row 14, col 1)
- ERUSSERPDOOLBHGIHCWFM (row 15, col 1)

**True or False Test - Level One**  
**Blood Pressure**

**Directions:** For the following statements, circle the **T** if the statement is true and circle the **F** if the statement is false.

- T    F    1. Having too much salt in your diet can raise your blood pressure.
- T    F    2. Fats contribute to the build-up of plaque in the arteries.
- T    F    3. High blood pressure does not have any symptoms.
- T    F    4. Blood pressure is defined as the force exerted against the walls of the veins.
- T    F    5. One out of ten American adults is affected by high blood pressure.
- T    F    6. Following a healthy lifestyle can help people prevent getting high blood pressure.
- T    F    7. A blocked or narrowed artery going to the brain can cause a stroke.
- T    F    8. One sample of a moderate physical activity is jogging.
- T    F    9. Using tobacco products can cause the arteries to narrow.
- T    F    10. If your blood pressure stays high, your arteries will become more elastic.

\_\_\_\_\_

Name

\_\_\_\_\_

class

\_\_\_\_\_

grade

**Test or Questions for Review - Level One**  
**Blood Pressure**

**Directions:** From the information included in the article you read, complete each statement with the best answer.

1. The blood pressure during the heart's contraction is called \_\_\_\_\_.
2. One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
3. Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
4. The blood pressure between the heart's contractions is called \_\_\_\_\_.
5. The medical term for high blood pressure is \_\_\_\_\_.
6. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
7. Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
8. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
9. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
10. Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.

## Test or Questions for Review - Level Two

### Blood Pressure

**Directions:** From the information included in the article you read, complete each statement with the best answer.

1. The blood pressure during the heart's contraction is called \_\_\_\_\_.
2. One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
3. Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
4. The blood pressure between the heart's contractions is called \_\_\_\_\_.
5. The medical term for high blood pressure is \_\_\_\_\_.
6. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
7. Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
8. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
9. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
10. Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
11. A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
12. One sample of a moderate physical activity is \_\_\_\_\_.
13. Using tobacco products can cause the arteries to \_\_\_\_\_.
14. The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_ mg/dl.
15. The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.



\_\_\_\_\_

Name

\_\_\_\_\_

class

\_\_\_\_\_

grade

## Test or Questions for Review - Level Three

### Blood Pressure

**Directions:** From the information included in the article you read, complete each statement with the best answer.

1. The blood pressure during the heart's contraction is called \_\_\_\_\_.
2. One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
3. Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
4. The blood pressure between the heart's contractions is called \_\_\_\_\_.
5. The medical term for high blood pressure is \_\_\_\_\_.
6. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
7. Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
8. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
9. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
10. Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
11. A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
12. One sample of a moderate physical activity is \_\_\_\_\_.
13. Using tobacco products can cause the arteries to \_\_\_\_\_.
14. The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_ mg/dl.
15. The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
16. Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
17. A weakened and ballooned-out artery is called an \_\_\_\_\_.
18. If your blood pressure stays high, your arteries will become less \_\_\_\_\_.
19. In addition to lifestyle, our blood pressure is affected by \_\_\_\_\_.
20. A blocked or narrowed artery going to the kidney can cause \_\_\_\_\_ failure.

# Blood Pressure

## Answer Key - True or False Test - Level One

1. Having too much salt in your diet can raise your blood pressure. **True**
2. Fats contribute to the build-up of plaque in the arteries. **True**
3. High blood pressure does not have any symptoms. **True**
4. Blood pressure is defined as the force exerted against the walls of the veins. **False**  
Blood pressure is defined as the force exerted against the walls of the **arteries**)
5. One out of ten American adults is affected by high blood pressure. **False** (One out of **three** American adults is affected by high blood pressure)
6. Following a healthy lifestyle can help people prevent high blood pressure.
7. A blocked or narrowed artery going to the brain can cause a stroke.
8. One sample of a moderate physical activity is jogging. **False** (Jogging is a **vigorous** activity)
9. Using tobacco products can cause the arteries to narrow.
10. If your blood pressure stays high, your arteries will become more elastic. **False**  
(If your blood pressure stays high, your arteries will become **less** elastic)

# Blood Pressure

## Answer Key - Tests and Review Questions

(Note: This solution applies to all three levels)

1. The blood pressure during the heart's contraction is called **Systolic**.
2. One type of fat that contributes to blocking the arteries is **Saturated**.
3. Having too much salt in your diet can raise your blood pressure due to its high content of **Sodium**.
4. The blood pressure between the heart's contractions is called **Diastolic**.
5. The medical term for high blood pressure is **Hypertension**.
6. Over time, fats contribute to the build-up of **Plaque** in the arteries.
7. Unlike other health disorders, high blood pressure does not have any **Symptoms**.
8. Blood pressure is defined as the force exerted against the walls of the **Arteries**.
9. One out of **Three** American adults is affected by high blood pressure.
10. Following a healthy lifestyle can help people to delay or even **Prevent** high blood pressure.
11. A blocked or narrowed artery going to the brain can cause a **Stroke**.
12. One sample of a moderate physical activity is **Walking**.
13. Using tobacco products can cause the arteries to **Narrow**.
14. The borderline systolic blood pressure for an adult is one hundred **Forty** mg/dl.
15. The borderline diastolic blood pressure for an adult is **Ninety** mg/dl.
16. Because it does not have any warning signs, high blood pressure is called the **Silent** killer.
17. A weakened and ballooned-out artery is called an **Aneurysm**.
18. If your blood pressure stays high, your arteries will become less **Elastic**.
19. In addition to lifestyle, our blood pressure is affected by **Genetics**.
20. A blocked or narrowed artery going to the kidney can cause **Renal** failure.

# Teacher Lesson Plan

For health classes, for rainy gym days, for substitute teachers, and even for study hall students who say that they have nothing to do

## Directions

- Print enough copies of the article so that all of the students in the class have their own copy.
- Each Worksheet is arranged so that the questions are in the same order as the information presented in the article. Select the Worksheet level that is most appropriate for your students and then print enough copies so that all of the students in the class have their own copy.
- If having the questions in the same order as the information presented in the article is too easy for your group of students, you can substitute one of the Test-Review Questions levels for the Worksheet.
- After completing one of the above-mentioned tasks, have the students complete one of the crossword puzzles, one of the word search puzzles, or both puzzles.
- If any of the above-mentioned choices is too difficult for your particular group of students, another option is to allow two students to work together on one of these tasks.

NOTE: Feedback from teachers already using these resources state that staff members really like receiving the health and wellness articles if they are accompanied by a crossword puzzle. For members of the staff, the Level Four crossword puzzle is recommended.

\_\_\_\_\_

Name

\_\_\_\_\_

class

\_\_\_\_\_

grade

## Worksheet - Level One

### Blood Pressure

**Directions:** From the information included in the article you read, complete each statement with the best answer.

1. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
2. Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
3. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
4. The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_ mg/dl.
5. The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
6. If your blood pressure stays high, your arteries will become less \_\_\_\_\_.
7. A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
8. One sample of a moderate physical activity is \_\_\_\_\_.
9. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
10. Using tobacco products can cause the arteries to \_\_\_\_\_.

## Worksheet - Level Two

### Blood Pressure

**Directions: From the information included in the article you read, complete each statement with the best answer.**

1. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
2. Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
3. Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
4. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
5. The blood pressure during the heart's contraction is called \_\_\_\_\_.
6. The blood pressure between the heart's contractions is called \_\_\_\_\_.
7. The medical term for high blood pressure is \_\_\_\_\_.
8. The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_ mg/dl.
9. The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
10. If your blood pressure stays high, your arteries will become less \_\_\_\_\_.
11. A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
12. Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
13. One sample of a moderate physical activity is \_\_\_\_\_.
14. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
15. Using tobacco products can cause the arteries to \_\_\_\_\_.



## Worksheet - Level Three

### Blood Pressure

**Directions:** From the information included in the article you read, complete each statement with the best answer.

1. One out of \_\_\_\_\_ American adults is affected by high blood pressure.
2. Unlike other health disorders, high blood pressure does not have any \_\_\_\_\_.
3. Because it does not have any warning signs, high blood pressure is called the \_\_\_\_\_ killer.
4. Blood pressure is defined as the force exerted against the walls of the \_\_\_\_\_.
5. The blood pressure during the heart's contraction is called \_\_\_\_\_.
6. The blood pressure between the heart's contractions is called \_\_\_\_\_.
7. The medical term for high blood pressure is \_\_\_\_\_.
8. The borderline systolic blood pressure for an adult is one hundred \_\_\_\_\_ mg/dl.
9. The borderline diastolic blood pressure for an adult is \_\_\_\_\_ mg/dl.
10. If your blood pressure stays high, your arteries will become less \_\_\_\_\_.
11. A weakened and ballooned-out artery is called an \_\_\_\_\_.
12. A blocked or narrowed artery going to the brain can cause a \_\_\_\_\_.
13. A blocked or narrowed artery going to the kidney can cause \_\_\_\_\_ failure.
14. In addition to lifestyle, our blood pressure is affected by \_\_\_\_\_.
15. Following a healthy lifestyle can help people to delay or even \_\_\_\_\_ high blood pressure.
16. One sample of a moderate physical activity is \_\_\_\_\_.
17. One type of fat that contributes to blocking the arteries is \_\_\_\_\_.
18. Over time, fats contribute to the build-up of \_\_\_\_\_ in the arteries.
19. Having too much salt in your diet can raise your blood pressure due to its high content of \_\_\_\_\_.
20. Using tobacco products can cause the arteries to \_\_\_\_\_.

# Blood Pressure

## Worksheet Answer Key - Level One

1. One out of **Three** American adults is affected by high blood pressure.
2. Because it does not have any warning signs, high blood pressure is called the **Silent** killer.
3. Blood pressure is defined as the force exerted against the walls of the **Arteries**.
4. The borderline systolic blood pressure for an adult is one hundred **Forty** mg/dl.
5. The borderline diastolic blood pressure for an adult is **Ninety** mg/dl.
6. If your blood pressure stays high, your arteries will become less **Elastic**.
7. A blocked or narrowed artery going to the brain can cause a **Stroke**.
8. One sample of a moderate physical activity is **Walking**.
9. Over time, fats contribute to the build-up of **Plaque** in the arteries.
10. Using tobacco products can cause the arteries to **Narrow**.

# Blood Pressure

## Worksheet Answer Key - Level Two

1. One out of **Three** American adults is affected by high blood pressure.
2. Unlike other health disorders, high blood pressure does not have any **Symptoms**
3. Because it does not have any warning signs, high blood pressure is called the **Silent** killer.
4. Blood pressure is defined as the force exerted against the walls of the **Arteries**.
5. The blood pressure during the heart's contraction is called **Systolic**.
6. The blood pressure between the heart's contractions is called **Diastolic**.
7. The medical term for high blood pressure is **Hypertension**.
8. The borderline systolic blood pressure for an adult is one hundred **Forty** mg/dl.
9. The borderline diastolic blood pressure for an adult is **Ninety** mg/dl.
10. If your blood pressure stays high, your arteries will become less **Elastic**.
11. A blocked or narrowed artery going to the brain can cause a **Stroke**.
12. Following a healthy lifestyle can help people to delay or even **Prevent** high blood pressure.
13. One sample of a moderate physical activity is **Walking**.
14. Over time, fats contribute to the build-up of **Plaque** in the arteries.
15. Using tobacco products can cause the arteries to **Narrow**.

# Blood Pressure

## Worksheet Answer Key - Level Three

1. One out of **Three** American adults is affected by high blood pressure.
2. Unlike other health disorders, high blood pressure does not have any **Symptoms**
3. Because it does not have any warning signs, high blood pressure is called the **Silent** killer.
4. Blood pressure is defined as the force exerted against the walls of the **Arteries**.
5. The blood pressure during the heart's contraction is called **Systolic**.
6. The blood pressure between the heart's contractions is called **Diastolic**.
7. The medical term for high blood pressure is **Hypertension**.
8. The borderline systolic blood pressure for an adult is one hundred **Forty** mg/dl.
9. The borderline diastolic blood pressure for an adult is **Ninety** mg/dl.
10. If your blood pressure stays high, your arteries will become less **Elastic**.
11. A weakened and ballooned-out artery is called an **Aneurysm**.
12. A blocked or narrowed artery going to the brain can cause a **Stroke**.
13. A blocked or narrowed artery going to the kidney can cause **Renal** failure.
14. In addition to lifestyle, our blood pressure is affected by **Genetics**.
15. Following a healthy lifestyle can help people to delay or even **Prevent** high blood pressure.
16. One sample of a moderate physical activity is **Walking**.
17. One type of fat that contributes to blocking the arteries is **Saturated**.
18. Over time, fats contribute to the build-up of **Plaque** in the arteries.
19. Having too much salt in your diet can raise your blood pressure due to its high content of **Sodium**.
20. Using tobacco products can cause the arteries to **Narrow**.