

# The Role of Food and Your Health: Blood Pressure

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How to use these slides – “read the notes in quotation marks”, **the notes in bold are actions facilitators should take**, and *italicized notes are suggestions to make your session as accessible and inclusive as possible!*

- “Join us to learn how food can impact overall health and why blood pressure is a critical factor for your health. Receive guidance to help you set goals to improve your health.
- The information is to support lifestyle risk modification only. Please consult with your health care provider if you have specific questions.”

**These slides were created by the  
Kentucky Inclusive Health Collaborative at the  
University of Kentucky Human Development  
Institute in collaboration with Aramark and the  
American Heart Association as part of the  
Healthy for Life® Initiative.**



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## Agenda

- Introduction
- Blood Pressure
- Health Care Discussion
- Goal Setting



- **Welcome participants and allow all facilitators to introduce themselves. You should also take care of any housekeeping items (closest bathroom, water fountain, etc.) at this time. Give a brief description of today's educational experience (objectives on next slide)**
- *To go above and beyond, you can create a schedule breakdown with time stamps and pictures. It is helpful to hang copies of the schedule in the learning space. This helps you keep on track and helps participants know what to expect. For example:*
  - *1:00-1:10 Introduction*
  - *1:10-1:20 Demonstrate Content (i.e. what is blood pressure, risk factors)*
  - *1:20-1:40 Activity (i.e. Health Care Discussion)*
  - *1:40-1:50 Recap/ Handout Review*
    - *If needed, 1:40-1:45 Break*
  - *1:50-2:10 Goal Setting*

## Learning Objectives

- Meet with a health professional to obtain a personal blood pressure reading.
- Understand how food affects your blood pressure.
- Describe what causes high blood pressure.
- Identify at least two strategies for controlling blood pressure.



- **Explain the expected outcomes**

# Ice Breaker

- **Engage in an icebreaker to gauge topic knowledge from the bank of options provided in the Welcome Toolkit or choose your own!**
  - <https://www.heart.org/-/media/files/healthy-living/company-collaboration/welcome-toolkit.pdf>
- *When choosing an ice breaker, the activity should allow multiple ways to participate and be included.*
- *Allow individuals to write/draw/verbally communicate their responses.*
- *For example, an activity that requires lots of physical movement might not be inclusive for people with physical disabilities.*

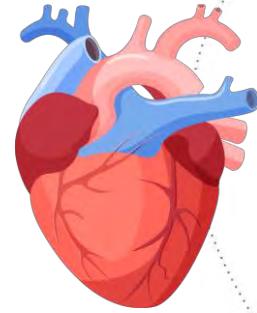


- **Play video for The Role of Food and Your Health: Blood Pressure (1:53)**
  - [https://www.youtube.com/watch?v=9\\_CUj\\_MOKzI](https://www.youtube.com/watch?v=9_CUj_MOKzI)
  - *Ensure that closed captioning is on for the video as it plays.*
- This video guides you through an animated heart showing them the anatomy of how high blood pressure is developed. It will share common causes and consequences of high blood pressure and share how food can impact overall health tips to successfully lower blood pressure to a healthy range.

# Blood Pressure

## How does blood pressure work?

- Heart pumps blood through blood vessels
- Blood pushes against vessel walls
  - This pushing is your blood pressure



## What is blood pressure?

- Blood pressure moves blood throughout our bodies
- Provides organs and tissues needed oxygen

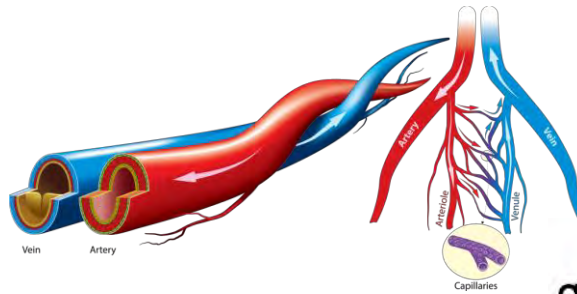


- “When your heart pumps blood through the blood vessels, the blood pushes against the walls of your vessels. This pushing creates blood pressure.
- We need blood pressure to move the blood throughout our bodies, so it can provide our organs and tissues with the oxygen they need.”

# Blood Pressure

## Arteries vs Veins

- Arteries move blood away from heart
- Elastic and can stretch
- Veins move blood back towards heart



- “Healthy arteries (the blood vessels that carry oxygen-rich blood from the heart to the rest of the body) are elastic. They can stretch to allow more blood to push through them. How much they stretch depends on how hard the blood pushes against the artery walls.”



## Blood Pressure Numbers

Blood Pressure is measured by 2 numbers

### **Systolic** Pressure

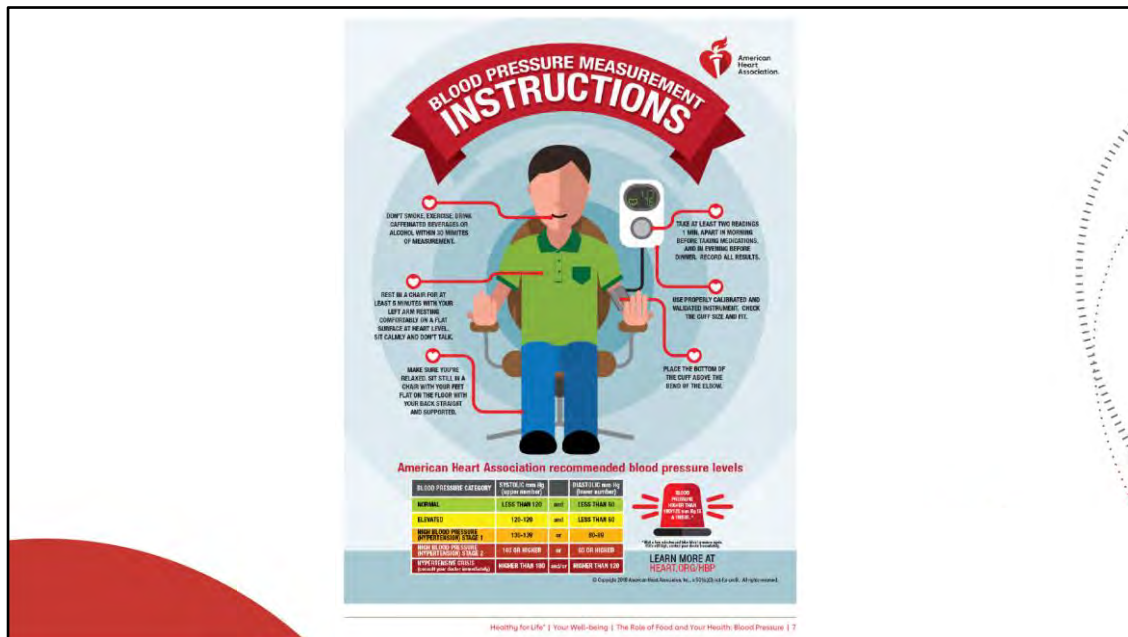
- Top number
- Measures pressure in arteries when blood is **pumping**

### **Diastolic** Pressure

- Bottom number
- Measures pressure in arteries when heart is at **rest**



- “Blood pressure is measured using a blood pressure monitor and it’s recorded as two numbers. The systolic pressure (top number) measures the pressure in the arteries when the heart is pumping blood. The diastolic pressure (bottom number) measures the pressure in the arteries when the heart is resting between beats.”



- This slide is meant to provide a visual cue. To review the handout with participants, open the PDF or link in a separate window and share your screen. If participants have a printed copy, have them follow along.
- *Supplemental handout: “Blood Pressure Measurement Instructions” on page 7 of The Role of Food and Your Health: Blood Pressure lesson plan.*
  - [https://www.heart.org/-/media/files/health-topics/high-blood-pressure/how\\_to\\_measure\\_your\\_blood\\_pressure\\_letter\\_size.pdf?la=en](https://www.heart.org/-/media/files/health-topics/high-blood-pressure/how_to_measure_your_blood_pressure_letter_size.pdf?la=en)

**Blood Pressure Chart**

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)	and	DIASTOLIC mm Hg (lower number)
<b>NORMAL</b>	LESS THAN 120	and	LESS THAN 80
<b>ELEVATED</b>	120 - 129	and	LESS THAN 80
<b>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1</b>	130 - 139	or	80 - 89
<b>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2</b>	140 OR HIGHER	or	90 OR HIGHER
<b>HYPERTENSION CRISIS (consult your doctor immediately)</b>	HIGHER THAN 180	and/or	HIGHER THAN 120

Two numbers are recorded when measuring your blood pressure. The top, or upper, number (called systolic pressure) measures the pressure in your arteries when your heart beats. The bottom, or lower, number (called diastolic pressure) measures the pressure while your heart rests between beats. Blood pressure is measured in millimeters of mercury (mm Hg).

The five blood pressure ranges as recognized by the American Heart Association are:

**Normal**  
Blood pressure numbers of less than 120/80 mm Hg are considered within the normal range. If your results fall in this category, stick with heart-healthy habits like following a balanced diet and getting regular exercise.

**Elevated**  
Elevated blood pressure readings consistently range from 120-129 systolic and less than 80 mm Hg diastolic. People with elevated blood pressure are likely to develop high blood pressure unless steps are taken to control the condition.

**Hypertension Stage 1**  
Blood pressure consistently ranges from 130-139 systolic or 80-89 mm Hg diastolic. Health care providers are likely to prescribe lifestyle changes and may consider adding blood pressure medication based on your risk of atherosclerotic cardiovascular disease (ASCVD), such as heart attack or stroke.

**Hypertension Stage 2**  
Blood pressure consistently ranges at 140 systolic or 90 mm Hg diastolic or higher. Health care providers are likely to prescribe blood pressure medications and lifestyle changes.






**Hypertensive Crisis**  
This stage requires medical attention. If your blood pressure readings suddenly exceed 180/120 mm Hg, wait five minutes and then test again. If your readings are still unusually high, contact your health care provider immediately.

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- *Supplemental handout: “Blood Pressure Chart” on page 6 of The Role of Food and Your Health: Blood Pressure lesson plan.*
  - <https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings>
- *Supplemental handout: “Optimal Blood Pressure Locator Tool”*
  - <https://www.wellness4ky.org/resource/optimal-blood-pressure-locator-tool/>

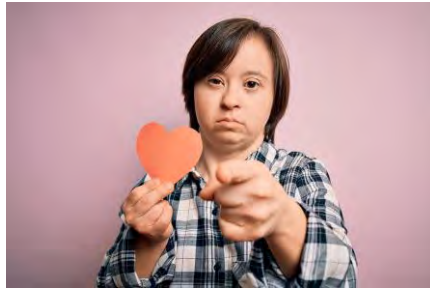
## Blood Pressure Range

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)	
NORMAL	LESS THAN 120	and	LESS THAN 80	
ELEVATED	120-129	and	LESS THAN 80	
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130-139	or	80-89	
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER	
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 3	HIGHER THAN 180	and/or	HIGHER THAN 120	

- “For your arteries to stay healthy, it’s important that your blood pressure be within a healthy range. For some of us, blood pressure can get too high. High blood pressure is called hypertension.”
- **Important to note how to properly take blood pressure measurements.**
  - *Supplemental resources:*
    - “How to use a home blood pressure monitor” (consumers)
      - <https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings/monitoring-your-blood-pressure-at-home>
    - “Steps For Accurate BP Measurement” (providers)
      - [https://www.heart.org/-/media/files/health-topics/high-blood-pressure/tylenol-hbp/aha\\_toolkit\\_poster\\_final\\_102618.pdf?la=en](https://www.heart.org/-/media/files/health-topics/high-blood-pressure/tylenol-hbp/aha_toolkit_poster_final_102618.pdf?la=en)

## High Blood Pressure (Hypertension)

- Doesn't always have a cause or symptoms
- **"Silent killer"**



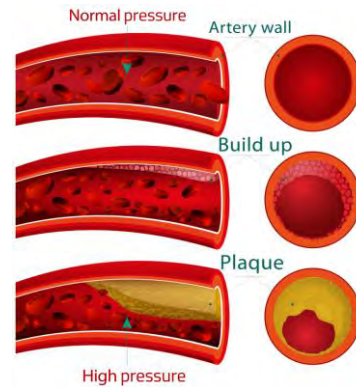
- “Most of the time, high blood pressure doesn’t have a cause and is sometimes called the “silent killer” because people don’t have symptoms.”



- “However, there are some risk factors (or conditions that can make us more likely to develop it) for high blood pressure. Some risk factors are outside of our control, like family history, age, gender and race. There are other risk factors that we can control, like poor diet (especially one that’s high in sodium), physical inactivity, smoking and drinking too much alcohol, and stress. By themselves or in combination, these factors play a big role in developing hypertension.”
- *Supplemental resource: Know Your Risk Factors for High Blood Pressure*
  - <https://www.heart.org/en/health-topics/high-blood-pressure/why-high-blood-pressure-is-a-silent-killer/know-your-risk-factors-for-high-blood-pressure>

## What Happens?

- Makes our hearts work harder
- Damages inner lining of arteries
- May increase risk of heart disease



- “High blood pressure, if not treated, can cause our hearts to work harder to supply the blood our bodies need. In addition, high blood pressure can damage the inner lining of the arteries, leading to coronary heart disease, heart failure, heart attack, stroke and other serious conditions.”

## Healthy Blood Pressure: 2 Tips

### 1. Heart **healthy diet** includes:

- Fruits
- Vegetables
- Whole grains
- Lean meat



- “It’s important to eat healthy by including lots of fruits, vegetables, whole grains, lean proteins and low-fat and fat-free dairy products in your diet. Also, limiting sodium can help lower your blood pressure.”



## Sodium

- Most comes from eating packaged and prepared foods
- Limiting sodium keeps blood pressure in check



- “Did you know that a lot of common foods add more sodium to our diet than we might realize? Despite what many people think, most dietary sodium (over 70%) comes from eating packaged and prepared foods— not from salting our food when we cook or eat.
- Cutting back on sodium can make us feel better while helping our blood pressure stay in check.”

## Popular High Sodium Foods

### Bread and rolls

- Check nutrition labels for lowest sodium

### Pizza

- Add veggie toppings

### Sandwiches

- Eat half or add a side salad

#### Nutrition Facts

Serving Size 1 can (163 mL)	
Servings per Container 3.5	
Amount per serving	
Calories 30 Calories from Fat 0	
Total Fat	0g 0%
Saturated Fat	0g 0%
Cholesterol	0mg 0%
Sodium	520mg 22%
Total carbohydrate	6g 2%
Dietary Fiber	1g 4%
Sugars	5g
Protein	1g



- “Here are six popular foods that can add a lot of sodium to your diet:
  - Bread and rolls – check the nutrition facts labels to find the brand with the lowest sodium.
  - Pizza – a slice of pizza with lots of traditional toppings can have more than half of our daily recommended sodium. Try for more veggies as toppings.
  - Sandwiches – a sandwich or burger can give you more than your daily recommended sodium. Instead of a full sandwich, eat half a sandwich and add a side salad.

## Popular High Sodium Foods

### Cold cuts and cured meats

- Look for brands with lower sodium



### Soup

- Check nutrition labels for lowest sodium



### Burritos and tacos

- Make your own taco seasoning:
  - Half a teaspoon of cumin, oregano, chili powder, garlic powder



- “Here are six popular foods that can add a lot of sodium to your diet:
  - Cold cuts and cured meats – One 2-ounce serving or six thin slices of deli meat can contain as much as half of our daily recommended dietary sodium. Look for brands with lower amounts of sodium.
  - Soup – One cup of canned soup can have 100 to 940 milligrams of sodium. Be sure to compare nutrition facts labels.
  - Burritos and tacos – Two teaspoons of packaged taco seasoning can have as much as 430 milligrams of sodium. Try making your own by combining ½ teaspoon each of cumin, oregano, chili powder and garlic powder for a total of only 42 milligrams of sodium. “

# Health Care Discussion

## Learn About Your Blood Pressure

- “Today, you are going to meet with a health care professional and learn about your blood pressure. To ensure your privacy, the professional will write down your measurements. You’ll also learn about healthy and unhealthy blood pressure ranges.
- If your blood pressure measurement is not in the ‘normal’ range, we recommend you visit with your own health care provider for advice and further consultation.”
- *If virtual, use breakout rooms to ensure participants’ privacy.*

**HOW TO MANAGE BLOOD PRESSURE**

**1 UNDERSTAND READINGS**

The first step to managing blood pressure is to understand what the levels mean and what is considered normal. Elevated, high blood pressure (hypertension) and higher levels exist. [heart.org/01events](http://heart.org/01events)

**Systolic**  
The top number, the higher of the two numbers, measures the pressure in the arteries when the heart beats (when the heart muscle contracts).

**Diastolic**  
The bottom number, the lower of the two numbers, measures the pressure in the arteries when the heart is resting between heartbeats.

Read as "117 over 76 millimeters of mercury."

**BLOOD PRESSURE CATEGORY**

BLOOD PRESSURE CATEGORY	SYSTOLIC (mm Hg) (top number)	and	DIASTOLIC (mm Hg) (bottom number)
Normal	less than 120	and	less than 80
Elevated Blood Pressure	120 to 129	and	less than 80
High Blood Pressure (Hypertension) Stage 1	130 to 139	or	80 to 89
High Blood Pressure (Hypertension) Stage 2	140 or higher	or	90 or higher
Hypertensive Crisis (Call your doctor immediately)	higher than 180	and/or	higher than 120

**2 TRACK LEVELS**

Check, Change, Control.

Health care providers can take blood pressure readings and provide recommendations.

Check, Change, Control helps you track your progress in reducing blood pressure.

Track online at [checkchangecontrol.com/AHA](http://checkchangecontrol.com/AHA)

**3 TIPS FOR SUCCESS**

**EAT SMART**

Eat a healthy diet of vegetables, fruits, whole grains, beans, legumes, nuts, plant-based proteins, lean animal proteins and fish. Limit sodium, saturated fats and added sugars. Limit sugary drinks and alcohol. Cut up or process meats, salty snacks, refined carbohydrates and highly processed foods. [heart.org/01eatsmart](http://heart.org/01eatsmart)

**MOVE MORE**

Physical activity helps control blood pressure, weight and stress levels. [heart.org/01move](http://heart.org/01move)

**MANAGE WEIGHT**

If you're overweight, even a slight weight loss can reduce high blood pressure. [heart.org/01weight](http://heart.org/01weight)

**DONT SMOKE**

Every time you smoke, vape or use tobacco, the nicotine can cause a temporary increase in blood pressure. [heart.org/01nonsmoke](http://heart.org/01nonsmoke)

**SLEEP WELL**

Short sleep (less than 6 hours) and poor-quality sleep are associated with high blood pressure.

LEARN MORE AT [HEART.ORG/MYLIFECHECK](http://HEART.ORG/MYLIFECHECK) AND [HEART.ORG/AHP](http://HEART.ORG/AHP)

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- *Supplemental handout: "How To Manage Blood Pressure" on page 5 of The Role of Food and Your Health: Blood Pressure lesson plan.*
  - <https://www.heart.org/-/media/healthy-living-files/infographics/life-simple-7-blood-pressure-infographic.pdf?la=en>



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- *Supplemental handout: “The Salty Six” on page 8 of The Role of Food and Your Health: Blood Pressure lesson plan.*
  - <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sodium/salty-six-infographic>

# Tomato Basil Soup



- *Optional activity: Tomato Basil Soup*
  - <https://recipes.heart.org/en/recipes/tomato-basil-soup>



- **Discuss what a “SMART” goal is.**
  - Specific -- clearly defined
  - Measurable -- able to be measured (numbers!)
  - Attainable -- achievable or within reach
  - Relevant -- appropriate or applicable
  - Time-Based -- given a due date
- *Supplemental video:*
  - *Achieve More by Setting SMART Goals (1:15)-*  
<https://youtu.be/yA53yhiOe04>



## SMART Goal Example

### Goal:

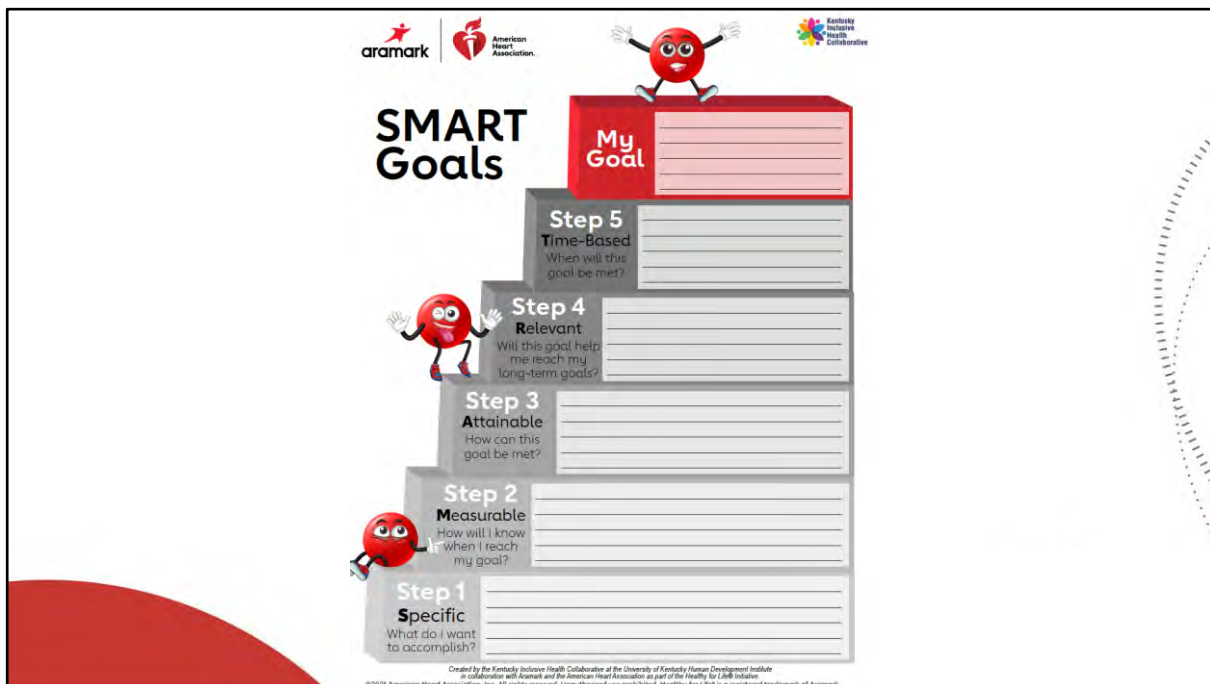
I will check my blood pressure weekly.

### SMART Goal:

I will check my blood pressure every Wednesday morning.



- Engage in a goal setting activity.
- Provide an example of a non-SMART goal.
- Invite the group to discuss how to make it SMART.



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- **Pass out “SMART Goal” handout to participants. If time allows, have participants fill out the handout and come up with their own SMART goal.**
  - <https://www.heart.org/-/media/healthy-living-files/healthy-for-life/kentucky-inclusive-health-collaborative-pdfs/smartgoals.pdf?la=en>



# Questions?

- **Invite participants to ask questions.**

# Thank You!



- **Thank participants**
- **If applicable, encourage them to join the next activity**
  - **Provide date/time/location if known**