Fighting Back Against the Silent Killer

Hypertension Awareness, Prevention, and Management Strategies
What is Blood Pressure?

- When your heart beats, it pumps blood into your blood vessels (arteries and veins).
- This creates pressure against the blood vessel walls.
- This blood pressure causes oxygenated blood to flow to all parts of your body.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
How is Blood Pressure Measured?

Your BP is recorded as two numbers:

Top Number = Systolic Pressure
- Indicates how much pressure your blood is exerting against your artery walls when the heart beats.
- In this example, systolic pressure is 110 millimeters of mercury (mm Hg).

Bottom Number = Diastolic Pressure
- Indicates how much pressure your blood is exerting against your artery walls while the heart is resting between beats.
- In this example, diastolic pressure is 67 millimeters of mercury (mm Hg).

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredserserve.org))
What is a Normal Blood Pressure Reading?

### Blood Pressure Categories

<table>
<thead>
<tr>
<th>BLOOD PRESSURE CATEGORY</th>
<th>SYSTOLIC mm Hg (upper number)</th>
<th>DIASTOLIC mm Hg (lower number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL</td>
<td>LESS THAN 120</td>
<td>and</td>
</tr>
<tr>
<td>ELEVATED</td>
<td>120 – 129</td>
<td>and</td>
</tr>
<tr>
<td>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1</td>
<td>130 – 139</td>
<td>or</td>
</tr>
<tr>
<td>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2</td>
<td>140 OR HIGHER</td>
<td>or</td>
</tr>
<tr>
<td>HYPERTENSIVE CRISIS (consult your doctor immediately)</td>
<td>HIGHER THAN 180</td>
<td>and/or</td>
</tr>
</tbody>
</table>

AHA - [https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings](https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings)
When Does High Blood Pressure Become Hypertension?

• Changes throughout the day based on your activities.

• Readings consistently above normal may result in a diagnosis of hypertension.

• Only a health care team can diagnose high blood pressure and make treatment decisions.

• Guidelines used to diagnose hypertension may differ from health care professional to health care professional.

(CDC, 2021, [https://www.cdc.gov/bloodpressure/about.htm](https://www.cdc.gov/bloodpressure/about.htm))
What Are the Symptoms of High Blood Pressure?

• Usually develops over time and has no warning signs or symptoms (silent killer). Many people do not know they have it.

• Measuring your blood pressure is the only way to know whether you have high blood pressure.

Symptoms of severe hypertension or hypertensive crisis can include: Flushing, blood spots in the eyes, nosebleeds, headaches and dizziness (Rishe & Holland, 2021)

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredserv.org))
Risk Factors for Developing High Blood Pressure

Non-Modifiable Risk Factors

- Family history
- Increased Age
- Male Gender
- Race
- Chronic Kidney Disease (CKD)

Understanding these risk factors can help you be more aware of how likely you are to develop high blood pressure.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
Risk Factors for Developing Hypertension

Modifiable Risk Factors

- Lack of physical activity
- Unhealthy diet, especially one high in sodium and cholesterol
- Being overweight or obese
- Drinking too much alcohol
- High cholesterol
- Diabetes
- Smoking and tobacco use
- Stress

You can change these risk factors to help prevent and manage high blood pressure.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
Consequences of Hypertension

Did you know?

• When your blood pressure is too high for too long, it damages your blood vessels.

• When left untreated, the damage that high blood pressure does to your circulatory system is a significant contributing factor to heart attack, stroke and other health threats.

• High Blood Pressure increases the workload of your circulatory system while decreasing its efficiency.

https://www.heart.org/-/media/files/health-topics/high-blood-pressure/consequences-of-high-blood-pressure-infographic.pdf
Prevalence in Kansas Communities

• In 2021, 34.3% of adult Kansans reported being told by a health professional that they had high blood pressure (compared to 32.4% of adults nationwide).

• Most prevalent in:
  • populations who have less than a high school education.
  • Black Men.
  • Individuals over the age of 65 years.
  • Individuals who have incomes below $25,000 per year.

Prevalence in Communities Nationwide

Over 1 in 2 African-Americans
Over 1 in 3 Asians, Pacific Islanders
Over 1 in 3 Hispanics, Latinos
Over 1 in 4* American Indians, Alaska Natives

Nearly half of people with high blood pressure do not have it under control.

*AHA- Data for this population is from 2017 and may not reflect current prevalence.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
Managing Blood Pressure

Making Changes that Matter:

- Eat more nutrient-dense foods & reduce sodium intake.
- Limit alcohol intake
- Enjoy consistent physical activity
- Manage stress
- Maintain a healthy weight
- Quit smoking
- Take your medications as prescribed
- Work together with your doctor
- Consider self-monitoring your blood pressure.

Even small changes will make a big difference.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
Eat More Nutrient Dense Foods

Let’s focus on what you can add to your diet!

• Eat a variety of fruits & vegetables
• Whole grains – ½ of your daily intake should be high-fiber options
• Lean meats and proteins
• Eat a variety of nuts, seeds, & legumes
• Low fat dairy foods
• Focus on heart healthy fats
• Increase fluids as fiber consumption increases

( National Heart Lung and Blood Institute, 2021 https://www.nhlbi.nih.gov/education/dash-eating-plan )
Reduce Sodium Intake

Excess levels of sodium: How too much sodium affects your health

9 out of 10 Americans consume too much sodium.

Where does sodium come from?

- More than 70% comes from processed and restaurant foods
- About 11% is added while cooking or eating
- More than 14% occurs naturally

3,400 milligrams: Amount of sodium an American consumes on average in a day

1,500 milligrams: Recommended by the AHA for ideal heart health

Reduce Sodium Intake

Check the Package for Nutrient Claims

You can also check for nutrient claims on food and beverage packages to quickly identify those that may contain less sodium. Here’s a guide to common claims and what they mean:

<table>
<thead>
<tr>
<th>What It Says</th>
<th>What It Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt/Sodium-Free</td>
<td>Less than 5 mg of sodium per serving</td>
</tr>
<tr>
<td>Very Low Sodium</td>
<td>35 mg of sodium or less per serving</td>
</tr>
<tr>
<td>Low Sodium</td>
<td>140 mg of sodium or less per serving</td>
</tr>
<tr>
<td>Reduced Sodium</td>
<td>At least 25% less sodium than the regular product</td>
</tr>
<tr>
<td>Light in Sodium or Lightly Salted</td>
<td>At least 50% less sodium than the regular product</td>
</tr>
<tr>
<td>No-Salt-Added or Unsalted</td>
<td>No salt is added during processing – but these products may not be salt/sodium-free unless stated</td>
</tr>
</tbody>
</table>

1 tsp salt ≈ 2,300 mg sodium

(FDA, 2022 [https://www.fda.gov/food/nutrition-education-resources-materials/sodium-your-diet](https://www.fda.gov/food/nutrition-education-resources-materials/sodium-your-diet) )
Reduce Sodium Intake

Start with serving information.
This will tell you the size of a single serving and how many servings are in the package.

Check total calories.
Do the math to know how many calories you're really getting if you eat the whole package.

Limit certain nutrients.
Compare labels when possible and choose options with lower amounts of added sugars, sodium and saturated fat and no trans fat.

Get enough of beneficial nutrients.
Eat foods with nutrients your body needs, like calcium, dietary fiber, iron, potassium and vitamin D.

Understand % Daily Value.
- The % Daily Value (DV) tells you the percentage of each nutrient in a single serving in terms of the daily recommended amount.
- To consume less of a nutrient (such as saturated fat or sodium), choose foods with a lower % DV (5% or less).
- To consume more of a nutrient (such as fiber or potassium), choose foods with a higher % DV (20% or more).

Enjoy Consistent Physical Activity

Benefits:
- Improve blood lipid levels (decreases the risk for heart disease & stroke)
- Weight loss & maintenance
- Improve blood pressure
- Increase confidence & mood
- Reduce depression
- Help alleviate stress
- Increase energy
- Improve sleep

Enjoy Consistent Physical Activity

Recommendation for Adults –
150 minutes per week
(cardiovascular/endurance)

- Break it up into smaller amounts
- Go for a walk, walk your dog
- Brisk walking or jogging
- Yard work (mowing, raking)
- Dancing
- Swimming
- Biking
- Climbing stairs or hills
- Playing tennis or basketball

(DGA, https://www.dietaryguidelines.gov/)
Enjoy Consistent Physical Activity

Recommendation for Adults – 2 times per week (strength)

- Lifting weights
- Carrying groceries
- Gripping a tennis ball
- Overhead arm curl
- Arm curls
- Wall push-ups
- Lifting your body weight
- Using a resistance band

Manage Stress

Long-term activation of your body’s stress response system, may put you at risk for health issues such as:

- Digestive problems
- Anxiety/depression
- Headaches
- Sleep problems
- Weight gain
- Memory/concentration issues
- High blood pressure
- Heart disease and stroke

Manage Stress

What can you do?

- Find a friend, don’t self-isolate
- Move more
- Focus on sleep hygiene
- Consider meditation
- Make an appoint to speak with a therapist

If you have high blood pressure, home monitoring may help your health care provider determine whether treatments are working.

**Before Taking Your Blood Pressure:**
- Avoid exercise, caffeine, smoking, and alcohol for at least 30 mins.
- Empty your bladder.
- Wear light or thin clothing so the cuff can get an accurate read.
- Find a quiet place to sit and relax for 5 minutes.

(AHA, [ETS Health Lesson - Control Your Blood Pressure (empoweredservce.org)](https://empoweredservce.org))
MONITOR YOUR BLOOD PRESSURE AT HOME

While Taking Your Blood Pressure:

- Position feet flat on the floor and sit up straight with your back against the chair.
- Rest your BP arm on something so your arm is heart level.
- Use the same arm every time.
- Avoid looking at the numbers/monitor while taking your BP.
- Log your numbers when done.
- Share your numbers with your provider.

(AHA, ETS Health Lesson - Control Your Blood Pressure (empoweredtoserve.org))
MONITOR YOUR BLOOD PRESSURE AT HOME

(AHA, How To Monitor Your Blood Pressure at Home – YouTube)
QUESTIONS AND CONTACT INFORMATION

Stephanie Gutierrez
Extension Program Coordinator
717-353-3195
smgutier@ksu.edu

Sara Sawer, MPH, RD, LD
Registered Dietitian/Extension Agent
316.660.0118
sarasawer@ksu.edu