



## **SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS**

Affiliated with National Volunteer Outreach Network,  
Country Women's Council, U.S.A., Associated Country Women of  
the World and in partnership with Clemson University Cooperative  
Extension Service

SCFCL website: <http://www.scfcl.com>

### **Leader Training Guide**

#### **Understanding High Blood Pressure**

##### **Objectives:**

The participants will be able to:

1. Identify high blood pressure basics.
2. Make dietary changes
3. Increase physical activity in daily lives
4. Identify stress reduction skills
5. Manage medications
6. Learn the importance of personal accountability
7. Identify resources

##### **Lesson Overview/Introduction:**

High Blood pressure affects more than 72 million Americans, that's 1 in every 3 adults. Many people think that high blood pressure is a normal part of aging. This is actually not the case. However, your risk does increase with age. High blood pressure often doesn't have physical symptoms which earns it the nickname "The Silent Killer."

##### **Lesson:**

##### **High Blood Pressure Basics**

Blood pressure is the force of blood against artery wall as it pumps throughout the body. Our heart beats about 60-70 times a minute at rest. Each time the heart beats it pumps out blood into the arteries. Blood pressure is at its highest when the heart is pumping out blood, this is called **Systolic Pressure** (top number on blood pressure monitor). When the heart is at rest, blood pressure falls. This number is called **Diastolic Pressure** (bottom number on monitor). High Blood pressure means the heart has to pump harder to get blood throughout the body. A heart that has to work harder than normal for a long time gets larger and weaker.

Usually you can tell if you have high blood pressure by checking your blood pressure with a blood pressure monitor, if your number is 140/90 or higher you are considered to have high blood pressure. A normal blood pressure would be 120/80 or lower. High Blood Pressure increases your risk for heart attacks, strokes, kidney disease, heart failure, blindness and a lot of other diseases and conditions.

Some factors that increase your risk for developing high blood pressure are salt/sodium in your diet, being overweight, lack of physical activity, heavy alcohol consumption, having diabetes and/or kidney disease, race (Blacks or African Americans get high blood pressure more often than whites, it tends to happen earlier in life and is more severe), age (the older you are your risk increases), gender (women have a higher risk of getting high blood pressure), smoking, and your family history.

Some warning signs of high blood pressure include: tiredness, confusion, nausea or upset stomach, vision problems, nosebleeds, sweating often, skin that is flushed or red or pale or white, anxiety or nervousness, palpitations, ringing or buzzing in ear, impotence in men, headaches, and dizziness. If you have these symptoms, you should see your doctor about your blood pressure. It is recommended that you check your blood pressure often with a blood pressure monitor. **(See handout “How do I use my automatic blood pressure monitor?”)**

### **Nutrition**

A healthy diet is very important for reducing the risk of high blood pressure. According to the Dietary Guidelines for Americans, a healthy diet emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products.

A healthy diet has a variety of nutrient rich foods every day. These foods are low in fat, cholesterol, simple sugar, and sodium. Aim to see as many colors as possible on your plate. Colorful fruits and vegetables have many nutrients you need to be healthy. It is important to include a variety of foods from these food groups because one food group cannot provide all the nutrients your body needs.

Fruit, vegetables and whole grains help your body by providing fiber (reduces colon cancer), vitamins and minerals (give your body the essential nutrients it needs to function), and complex carbohydrates (increases energy).

Dairy products like milk and yogurt help your body by providing calcium (makes your bones stronger), Vitamin D (helps your body take in calcium), and protein (builds and restores muscles, tissues, skin, and blood). Meat, beans, and nuts also provide protein for your body.

**Use MyPlate for better health!**

- Make half your plate fruits and vegetables.
- Enjoy your food, but avoid oversized portions.
- Cut back on foods high in solid fats, added sugar and salt.
- Drink water instead of sugary drinks.
- Switch to fat-free or low-fat (1%) milk.
- Make at least half your grains whole grains.
- Go lean with protein.

Choose **MyPlate.gov**

The amounts are for a 2,000 calorie diet. To find the amounts that are right for you, go to [www.choosemyplate.gov](http://www.choosemyplate.gov). The USDA does not endorse any products, services, or organizations. Source: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. Provided by ETR, a nonprofit organization. 1-800-321-4407. © copyright. Title No. N001

Be aware of the AMOUNT of healthy foods you are eating.

1. Avoid getting second helpings.
2. When at a restaurant get take out containers and place half of your meal in the container for another meal.
3. Split your meal with another person when eating at a restaurant.
4. Eat slowly and stop eating if you feel full. You don't have to clean your place at every meal.

**VISUAL GUIDE TO ESTIMATE PORTION SIZE USING YOUR HANDS**

**FIST**  
Equal to 1 cup is a portion of rice, fruits or vegetables. 200 kcal

**FINGERTIP**  
Equal to 1 teaspoon is a portion of fats like mayonnaise or butter. 35 kcal

**CUPPED HAND**  
Equal to 1/2 cup or 1 ounce is a portion of snacks like nuts or dried fruits. 170 kcal

**THUMB**  
Equal to 2 tablespoons is a portion of dairy and peanut butter. 170 kcal

**PALM**  
Equal to 3 ounces is a portion of protein like red meat or chicken. 160 kcal

HAND SIZES VARY, SO THE COMPARISON IS JUST AN ESTIMATION & ROUGH GUIDELINE.

SOURCE: Hand Guide to Portion Control infographic, 2013, November 13. Retrieved October 16, 2014, from <http://www.gardensofhealth.com/healthtips/portion-size-guide/>

## Physical Activity

Physical activity is any movement of the body that uses energy. Some examples of physical activity include: gardening, dancing, walking, and climbing the stairs. Today Americans are less physically active than other generations.

Physical activity has many benefits. Some of those benefits include

1. It may lower your cholesterol
2. It strengthens your heart and lungs
3. Helps you sleep better
4. Gives you more energy
5. Lowers stress levels
6. Lowers chances of developing heart diseases, type 2 diabetes, stroke and other heart related disease or conditions.

Physical activity can also reduce both your systolic and diastolic blood pressure an average of 10 points. It can also decrease the amount of medicine you may need. Physical activity improves the health of the heart and blood vessels and also helps with weight loss and stress management.

Before starting to become more physically active talk with your doctor, especially if you have Arthritis, Diabetes, and any heart condition. Also, if you have experienced pain or discomfort in the past when engaging in physical activity, or if you have gotten dizzy, lightheaded or been out of breath after mild activities. If you have had a heart attack in the past talk with your doctor about activities that are safe for you.

It is recommended that adults get at least 30 minutes of physical activity most days of the week. When making the decision to become more physically active the following things are important:

1. Start out slowly and gradually build up
2. Drink plenty of water before, during, and after working out
3. Wear comfortable shoes that support your feet
4. Don't wear clothes that are heavy
5. Put off starting if you are feeling ill (if you have a fever or cold etc.)

Many communities have recreational facilities such as parks and community centers that are free or low cost. Many malls are open early in the morning and are generally a safe place to walk. There may also be walking clubs or groups in your community.

When walking as physically activity, use a pedometer (Fitbit) or smartphone to count your steps; it is a general recommendation to get at least 10,000 steps a day. See how many steps you get the first week and gradually add steps weekly.

It is important to make sure that the activities you engage in are of moderate intensity. To see if an activity is of moderate intensity you could use the “talk test”. If an activity is of light intensity you should be able to sing a song while engaging in that activity. If it is of moderate intensity you should be able to talk when doing the activity. If you cannot speak that activity is of vigorous intensity.

## **Stress Management**

There are many recent studies that show a connection between heart health and stress. Stress is your body’s reaction to any challenge or demand. Stress may cause feelings of emotional and physical tension.

Stress over a long period of time can harm the heart, and it is the most common trigger for a heart attack. Stress can prolong the healing process after a heart attack or stroke. It can increase your blood pressure, weaken your immune system, increase your risk of heart attack and stroke, speed up the aging process and can lead to depression.

Stress cannot be measured by medical test but there are some signs and symptoms that can include: irritability, headaches, insomnia, stomach/digestion issues, chest pain, low energy and many more.

To minimize symptoms associated with stress you can make lifestyle changes like managing time, eating healthy and exercising, and learning to relax.

Some ways to manage stress include:

1. **Progressive Relaxation:** this is tensing and relaxing your different muscle groups; for example, squeezing a fist and releasing the fist a couple times. This relaxes your muscles, and lowers your blood pressure, heart rate, and breathing rate.
2. **Visualization:** This is imagining a place, person, or time that makes you feel at peace and relaxes you and improves your mood. For example, the beach, birds chirping, your grandchildren’s laughter. This method requires you to use all of your senses.

3. **Meditation:** During meditation you focus on one thing and tune out the world around you. Meditation can be incorporated with Yoga and other exercises.
4. **Deep Breathing:** Deep breathing is also called the “relaxation response”, it is a natural response to stress where you take deep breaths to decrease stress.

### **Medication Management**

Medicine is often used to control Hypertension. Usually you are given one type of medicine to control your hypertension. Your doctor may have to add or change the type of medicine that you use. It is very important to take the medication your doctor prescribes and at the recommended time. Your hypertension can become uncontrolled if you stop taking your medication as prescribed by your doctor and your risk for developing heart related issues like stroke or heart attack increases.

(See Do's & Don'ts of Medication Management handout)

Keep your prescription filled at all times. Refill your medicine several days before your refill is due, especially if you plan on traveling or if there is a weather alert such as a hurricane or snow storm, or if there is a holiday near. Anytime you are away from home take your medication with you.

If cost is an issue for you talk with your doctor; he or she may be able to prescribe a medication that is similar but cost less. If you need help paying for medication see a social worker while at your doctor's office or hospital. You can also call your doctor to find a social worker that works in your community. You may be able to get forms for low-cost or free drug programs.

If you are taking medicines that are over the counter (OTC) like aspirin, cold medicines, herbal supplements, or vitamins tell your doctor about the medicines that you are taking over the counter. Also talk with your doctor about any allergies you may have to medicines, foods, chemicals or other allergies that you may have.

If you have any issues with remembering to take your Hypertension medicines try a couple of the following things:

1. Take your medication at the same time every day and store your medication in the same places every day. For example, try taking your medicine with your breakfast or place your medicine by your toothbrush.

2. Put sticky notes in places like your refrigerator, bathroom mirror, or on the door most used to exit your home or even in your car to remind you to take your medicine.
3. Ask for help, have a friend or family member call you to remind you to take your medicines daily.
4. Use a pillbox to store your pills.
5. Use your calendar to remember to take your medicine and cross it off when you take your medicine. You can make this fun by using different colors for different medicines and decorating the calendar. You can also set reminder on your phone to remember.

Hypertension can be controlled and managed but it takes a lot of accountability from you.

### **Suggested Materials:**

*How do I use my Automatic Blood Pressure Monitor?* Handout

*Know Your Numbers* Handout

Fight Stress with Healthy Habits- Infographic

### **Suggested Activities:**

Bring an automatic blood pressure monitor to the meeting to demonstrate and check blood pressure. Ask if your local Extension Office has a blood pressure monitor available for your club to borrow.

If your club has access to a computer, watch these videos

How Blood Pressure Works

<https://www.youtube.com/watch?v=Ab9OZsDECZw>

High Blood Pressure Basics

[https://www.youtube.com/watch?time\\_continue=63&v=mjTMZ\\_sm0LQ](https://www.youtube.com/watch?time_continue=63&v=mjTMZ_sm0LQ)

Treating High Blood Pressure

[https://www.youtube.com/watch?time\\_continue=5&v=XbLmloyDJuE](https://www.youtube.com/watch?time_continue=5&v=XbLmloyDJuE)

Invite a local nurse or trained Health Coach for Hypertension Control. Contact your local extension office for information on a Health Coach.

### **Lesson Summary:**

Lifestyle change and creating a plan for change are important parts of controlling hypertension. Healthy eating, exercise, medication management and stress management are all ways to control hypertension. These changes can be gradual and even small steps can make huge differences in how you feel, think, and live. You can manage your weight, gain more energy from physical activity, and lower your risk for developing heart disease, stroke, heart attacks and much more by making small changes. Hypertension is not a part of aging and it can be controlled and managed!

**Lesson Prepared By:** Paris S. Mebane, Rural Health and Nutrition Agent, Clemson University

**Lesson Review by:** Rhonda Matthews, MEd, Extension Associate, Clemson University

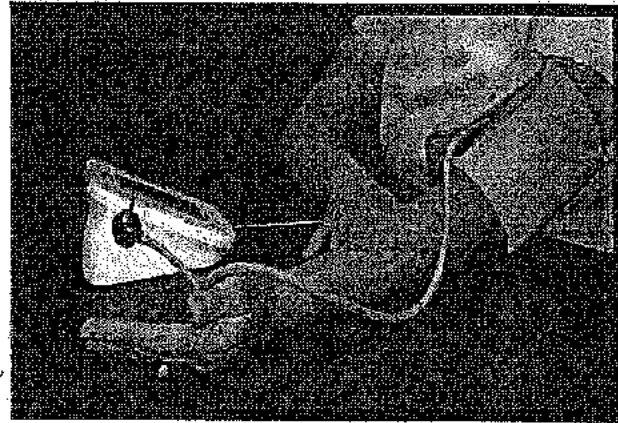


### How do I use my automatic blood pressure monitor?

Measuring your blood pressure is quick and painless! A blood pressure monitor has three parts: the cuff, a pump attached to the cuff by a tube, and a dial or screen that is also attached to the cuff by a tube. The cuff is a wide strap that wraps snugly around your arm above the elbow.

Your blood pressure monitor has an automatic pump with a built in stethoscope – this means you do not have to listen to your blood pressure, manually squeeze the pump to inflate the cuff, or read numbers off of a small dial. All you are required to do is follow these steps:

1. **Wrap the cuff around your arm right above the elbow.** It should be snug – not too tight or too loose.
2. **Push the start button on your monitor.** The cuff will begin inflating.
3. Sit and **wait** for the machine to measure your blood pressure. Keep still and silent while the reading is being taken – moving and talking can affect the accuracy. When it is finished, your cuff will be completely deflated.
4. Your blood pressure reading will show up on the screen. The higher number is your systolic pressure, and the lower number is your diastolic pressure. **Record your blood pressure** before turning off the monitor.



**Some important tips** to remember when taking your blood pressure:

- Wear a short sleeved or loose fitting shirt so the sleeve can be rolled up comfortably.
- You should be seated with the midpoint of your upper arm at the level of the heart. It is important for your arm to be supported. You may need to raise the arm with books to make sure it is at the correct height.
- You should rest for at least 5 minutes before taking your blood pressure. Blood pressure readings are affected by emotions, physical activity, and the surroundings. Minimize disturbances that may affect the reading.
- Make sure your arm is completely relaxed and not tense.
- Routinely check your equipment to be sure it is working properly.
- If you are going to take a second or third reading, wait at least 2 minutes in between readings. We recommend taking at least two readings.
- Always use the same arm for readings.
- There are several factors that can affect your blood pressure reading: exercise, alcohol, caffeine, tobacco, talking, anxiety, excitement, pain, or a full bladder. You will want to avoid these things at least 30 minutes prior to taking your blood pressure reading.
- You may want to record what you have been doing and what medicines you have been taking every time you record your blood pressure.

# KNOW YOUR NUMBERS

**BLOOD PRESSURE** is the force of your blood moving against the walls of your arteries. It's expressed as **TWO NUMBERS**:

*Top Number:*  
**SYSTOLIC** (mm Hg)  
 The pressure or force in the arteries when the heart beats

*Bottom Number:*  
**DIASTOLIC** (mm Hg)  
 The pressure measured between heartbeats

**WARNING!**  
 Over time elevated or high blood pressure weakens your heart, blood vessels and kidneys, and makes a stroke or heart attack much more likely

## LIFESTYLE CHANGES that Lower Blood Pressure

**Move More**  
 Get regular physical activity

**Focus on Nutrition**  
 Follow the DASH diet and eat potassium-rich vegetables

**Cut Salt**  
 Aim for 1,500 mg of sodium or less per day

**Limit Alcohol**  
 For men, not more than 2 drinks per day; for women, 1

**Lose Weight**  
 Losing just a few pounds can make a big difference

**Don't Smoke**  
 If you smoke, stop

**De-stress**  
 Meditation and rest help lower blood pressure

### NORMAL

below  
**120**

below  
**80**

### ELEVATED

**120**  
 to  
**129**

below  
**80**

### HIGH

#### STAGE 1

**130**  
 to  
**139**

**80**  
 to  
**89**

#### STAGE 2

**140**  
 and above

**90**  
 and above

Also called *Hypertension*

Information provided for educational purposes only. Please consult your health care provider about your specific health needs.

Go to [CardioSmart.org/HighBP](https://www.cardiosmart.org/HighBP) to learn more about High Blood Pressure.



# FIGHT STRESS

WITH **HEALTHY HABITS**



Healthy For Good™

## 1. Slow down.

Plan ahead and allow enough time to get the most important things done without having to rush.

## 2. Snooze more.

Try to get six to eight hours of sleep each night. To fight insomnia, add mindfulness and activity.

## 3. Let worry go.

The world won't end if a few things fall off of your plate. Give yourself a break and just breathe.

## 4. Laugh it up.

Laughter makes us feel good. Don't be afraid to laugh out loud, even when you're alone.

## 5. Get connected.

A daily dose of friendship is great medicine. Make time to call friends or family so you can catch up.

## 6. Get organized.

Use "to do" lists to help you focus on your most important tasks, and take big projects one step at a time.

## 7. Practice giving back.

Volunteer your time or spend time helping out a friend. Helping others helps you.

## 8. Be active every day.

Exercise can relieve mental and physical tension. Find something you think is fun and stick with it.

## 9. Give up the bad habits.

Too much alcohol, tobacco or caffeine can increase blood pressure. Cut back or quit to decrease anxiety.

## 10. Lean into things you can change.

Make time to learn a new skill, work toward a goal, or to love and help others.

LEARN MORE AT [HEART.ORG/BEVELL](https://www.heart.org/bevell)