



High Blood Pressure (Hypertension) Education



THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER



Table of Contents

High Blood Pressure Overview

Learning About Your Blood Pressure	4
Getting Ready for Your Blood Pressure Reading	6
How to Measure Your Blood Pressure	7
Arm Cuff Instructions	7
Wrist Cuff Instructions	10
Healthy Changes to Lower Your Blood Pressure	12
Low Blood Pressure	13

Medicines

Taking Medicines for High Blood Pressure	15
Medicines for High Blood Pressure	17
Over the Counter Medicines to Avoid	20

This book is for informational purposes only. Talk to your doctor or health care team if you have any questions about your care.

For more health information, go to wexnermedical.osu.edu/patiented or contact the Library for Health Information at 614-293-3707 or health-info@osu.edu.

Diet

Healthy Eating with High Blood Pressure

Following a Heart Healthy Diet	21
Healthy Eating with the DASH Diet	22
Mediterranean Diet	25
Healthy Snacks	28

Lowering Sodium in Your Diet

Lowering Sodium in Your Diet	30
Seasoning Food without Salt	34
Cooking Suggestions and Recipes for a Low Sodium Diet	37
Low Sodium 3 Day Sample Menu	42

Potassium Rich Foods

Foods High in Potassium	45
-------------------------------	----

Caffeine

Lowering Caffeine in Your Diet	47
--------------------------------------	----

Alcohol

Alcohol and High Blood Pressure	49
---------------------------------------	----

Exercise

Exercise and High Blood Pressure	51
--	----

Living with High Blood Pressure

Relaxation Techniques to Reduce Stress	53
How Does Sleep Affect Your Heart Health?	55

Tracking High Blood Pressure

Blood Pressure Log	57
My Blood Pressure Action Plan	59

For a digital copy of this book, please visit go.osu.edu/pted5302.

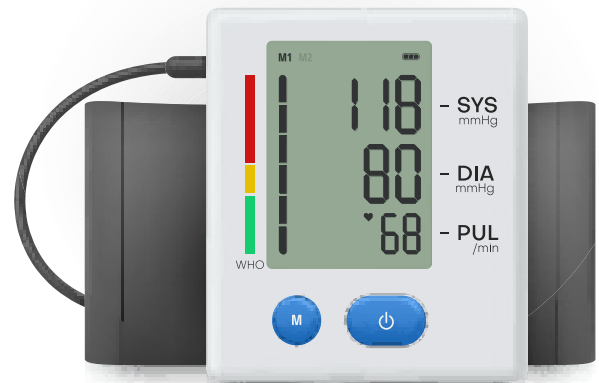
Learning About Your Blood Pressure

Your health care provider would like to know how your blood pressure is when you are at home. You can do that by using different kinds of home monitoring equipment. This book will help you understand more about your blood pressure and how to manage it at home.

What is blood pressure and how is it measured?

Blood pressure measures the pressure of the blood in the arteries. Arteries are tubes that carry blood from your heart to the rest of your body. The arteries can automatically contract (get smaller) or expand (get bigger). When arteries contract, the pressure inside becomes higher. When arteries expand, the pressure inside becomes lower. If arteries remain contracted or become clogged, the disease high blood pressure (hypertension) occurs.

- **Systolic (SYS):** The top number is the pressure in the arteries each time the blood is pushed out of the heart.
- **Diastolic (DIA):** The bottom number is the resting pressure when the heart relaxes between beats. The harder it is for blood to flow through the arteries, the higher the blood pressure numbers will be.
- **Pulse Rate (PUL):** The rate at which your heart beats. Your pulse is usually called your heart rate, which is the number of times your heart beats each minute (bpm).



Blood Pressure Numbers

Blood pressure is measured in millimeters of mercury (mm Hg). For example, if your blood pressure is “140 over 90” or 140/90 mm Hg, this is 140 mm Hg systolic and 90 mm Hg diastolic.

Blood Pressure Category	Blood Pressure Reading
Normal	systolic less than 120 and diastolic less than 80
Elevated	systolic 120 to 129 and diastolic less than 80
High – Hypertension Stage 1	systolic 130 to 139 or diastolic 80 to 89
High – Hypertension Stage 2	systolic 140 or higher or diastolic 90 or higher
Hypertensive Crisis If your blood pressure is over 180/120, call your provider right away for instructions. Call 911 if your blood pressure is over 180/120 and you have any of the problems listed on the bottom of page 59.	systolic higher than 180 and/or diastolic higher than 120

A diagnosis of high blood pressure will not be made until your blood pressure has been checked several times and it stays high. Keeping your blood pressure under good control is very important, especially if you have other medical problems, such as diabetes, kidney disease, or have had a stroke.

Why is high blood pressure bad?

High blood pressure means that your heart is working harder than normal to pump blood to the rest of your body's organs and tissues. This may cause other health problems, such as a heart attack, stroke, kidney failure, and hardening of the arteries, called atherosclerosis.

Many people with high blood pressure do not feel sick. This does not mean that you do not need treatment for your high blood pressure.

What can be done for high blood pressure?

In most cases, the cause of high blood pressure is not known. Although there is no cure for high blood pressure, it can be controlled through lifestyle changes and medicine. Your provider may try one medicine or a combination of medicines to see what works best for you.

If you have high blood pressure:

- Follow your provider's advice and make lifestyle changes. See page 12 for more information.
- Buy a home blood pressure monitor, so you can record your blood pressure readings between visits to your provider. Arm and wrist cuff monitors are reviewed later in this book to help you choose the best monitor for you.
- Talk to your provider if your medicine is giving you unwanted side effects. **Do not stop taking the medicine without first talking to your provider.**
- Continue taking your medicines, even if you feel fine and your blood pressure returns to normal.

Getting Ready for Your Blood Pressure Reading

- Avoid eating, drinking caffeine, smoking, or exercise for at least 30 minutes. Also, do not use any medicines that can raise your blood pressure for 30 minutes before taking your blood pressure reading.
- Rest at least 5 minutes before you take a reading. Sit in a comfortable, relaxed position with both feet on the floor. Do not move or talk while you are taking your blood pressure.
- Try not to take your blood pressure if you are nervous or upset.
- If you can, use the same arm for every reading. Readings can be different between your right and left arm.
- Blood pressure readings vary throughout the day. They usually are highest in the morning, decrease during the day, and are lowest in the evening. It can be helpful to take readings at different times at first to understand your own blood pressure trends. After that, it is okay to check around the same time each day.

When you first start taking your blood pressure at home, take it 2 times. Wait 1 minute between readings to let the blood flow back into your arm.

Keep a blood pressure log

Keep track of your blood pressure readings. This may help explain changes in your readings and help your health care provider to make sure you get the right treatment.

You can use the log on page 57 in this book or a spreadsheet on your computer. Some monitors can record your numbers for you and can transfer the information to your computer or phone.

How to Measure Your Blood Pressure

Blood pressure monitors come with a cuff that goes on your arm or a cuff that goes on your wrist. Upper arm devices that use a cuff on your arm are usually preferred for measuring blood pressure because they have better accuracy than wrist cuffs. In some cases, a wrist cuff may be used for people with a medical history that prevents them from using the upper arm.

ARM CUFF INSTRUCTIONS

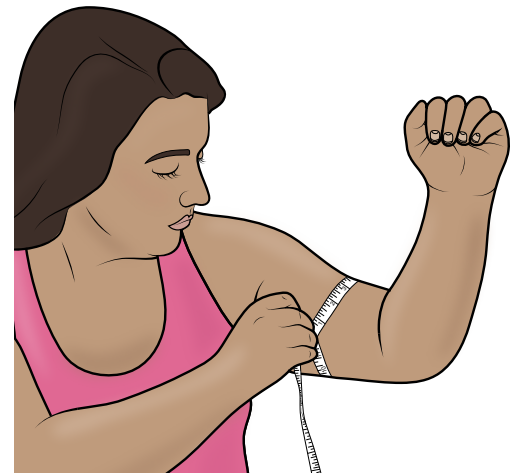
Find your cuff size

Your arm measurement can be taken in your health care provider's office. You can also measure this at home using a tape measure.

1. Hold out your arm.
2. Measure around your upper arm at the midway point between your elbow and shoulder to get your arm size.

If you do not have a tape measure, please ask for one from your health care team.

Use the guide below to find the right size for you (small adult, adult, large adult, or extra-large adult).



Arm size	Recommended cuff size
8.7 to 10.2 inches around	Small adult
10.6 to 13.4 inches around	Adult
13.8 to 17.3 inches around	Large adult
17.7 to 20.5 inches around	Extra large adult

If your arm measures 20.5 inches or more, you will need to pick a product such as the Welch Allyn 1700 series, which fits up to 21.2 inches. If you are not able to get this product or if your arm measures over 21.2 inches, talk to your provider about other options, such as using a wrist cuff monitor.



My upper arm size is: _____

My cuff size is: _____

Use a validated blood pressure monitor

You will want to choose a monitor that is validated. A validated device means that it has been tested to make sure it gives results that are accurate and reliable. Your provider can help you choose a validated device.

Here are some examples of validated blood pressure machines for home monitoring of blood pressure (arm cuff). These costs are estimates and may vary based on the retailer.

- **Omron 3 Series Upper Arm Blood Pressure Monitor** – adult/large adult cuff
- **Omron 5 Series Upper Arm Blood Pressure Monitor** – adult/large adult cuff
- **Omron 5 Series Wireless Upper Arm Blood Pressure Monitor** – adult/large adult cuff
- **A & D Medical Talking+ Blood Pressure Monitor** – small adult, medium, and large (sold with medium cuff, other sizes sold separately)
- **A & D Medical ULTRACONNECT Wireless Blood Pressure Monitor** – integrated (fits small to large adult)
- **A & D Medical Advanced Manual Inflate Blood Pressure Monitor** – medium/adult cuff
- **Welch Allyn Home Blood Pressure Monitor, 1700 Series** – extra small, standard (default size), and extra-large (up to 21.2 inches)
- **Withings BPM Connect Wi-Fi Smart Blood Pressure Monitor** – integrated (fits small to large adult size)

You can also see a listing of validated U.S. blood pressure devices at validatebp.org.

How to take your blood pressure reading

1. Sit in a comfortable position for 5 minutes before taking your blood pressure.
2. Push your sleeve up and lay your arm on a table. If your clothes are too tight around your arm, take off your shirt or blouse before checking your blood pressure.
3. Wrap the cuff around your upper arm just above the elbow. The cuff should be snug around your arm. Make sure the lower end of the cuff where the tube comes out is about 1 inch above your elbow.
4. Press the on/off button. Wait until the ready to measure “heart” symbol appears next to the zero in the display window.
5. Press the start button. The cuff will inflate. After a few seconds, the cuff will begin to deflate. The numbers will begin to drop.
6. When the measurement is complete, the heart symbol stops flashing. The numbers tell you your blood pressure and pulse. Mark these numbers down on your blood pressure log.

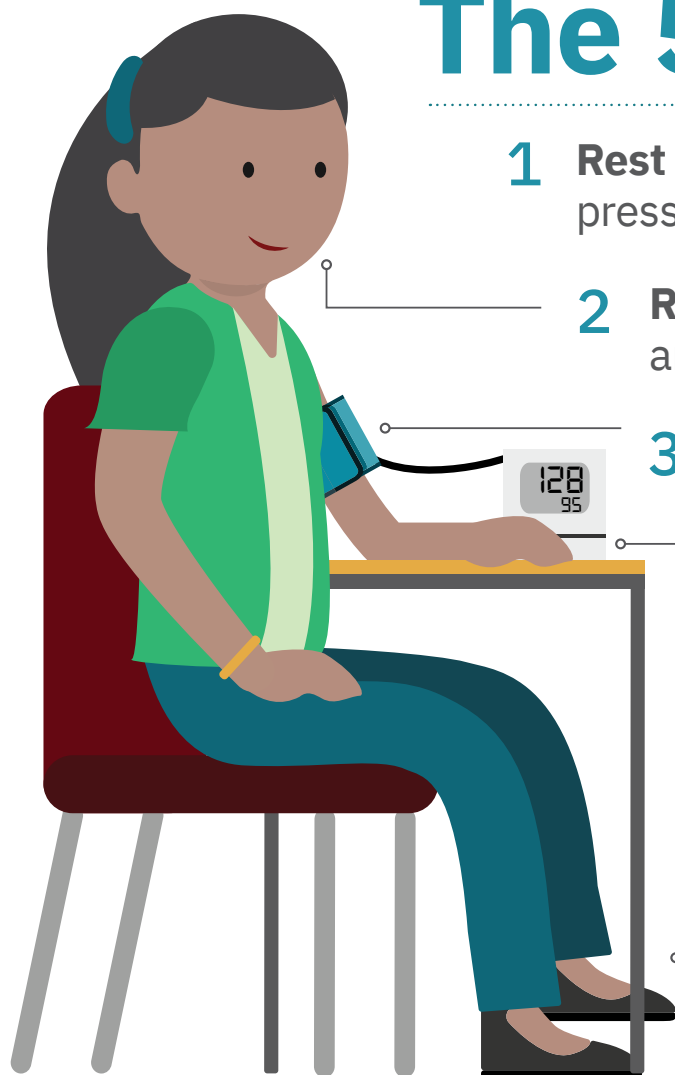
Take care of your home monitor

Check your blood pressure cuff often. Make sure all the parts of your monitor are in good condition. Even a small hole or crack in the tubing can lead to inaccurate results.



Accurate Blood Pressure Measurement for Patients

The 5 R's



- 1 Rest** for 5 minutes before blood pressure reading
- 2 Refrain** (avoid) talking while resting and during blood pressure reading
- 3 Remove** upper arm clothing
- 4 Rest** arm on supported surface with cuff at heart level
- 5 Rest** feet flat on floor in seated position

- ▶ **TAKE 2 BLOOD PRESSURE READINGS 1 MINUTE APART**
- ▶ **GOAL BLOOD PRESSURE IS LESS THAN 130/80**

WRIST CUFF INSTRUCTIONS

Use a validated monitor

You will want to choose a monitor that is validated. A validated device means that it has been tested to make sure it gives results that are accurate and reliable. Your provider can help you choose a validated device.

Here are some examples of validated blood pressure machines for home monitoring of blood pressure (wrist cuff). Cost may range based on the retailer.

- **Omron Gold Wireless Bluetooth Wrist Blood Pressure Monitor**
- **Omron 7 Series Wireless Wrist Blood Pressure Monitor** – adult/large adult cuff

You can also see a listing of validated U.S. blood pressure devices at validatebp.org.



How to take your blood pressure reading

1. Sit in a comfortable position for 5 minutes before taking your blood pressure.
 2. Push your sleeve up away from your wrist, so you can take the reading on your bare skin.
 3. Wrap the cuff around your wrist snugly with the reading on the inside of your wrist.
 4. Place your arm over your chest with your elbow bent as shown on the next page. Your wrist should be at heart level.
 5. Press the power button. Sometimes this is the same as the start button.
 6. Press the start button or go button. Relax your arm and do not move while the cuff inflates.
- Your blood pressure and pulse will flash on the screen when the cuff is done taking your reading. Mark these numbers down on your blood pressure log.

Taking care of your home monitor

Check your blood pressure cuff often. Make sure all the parts of your monitor are in good condition.

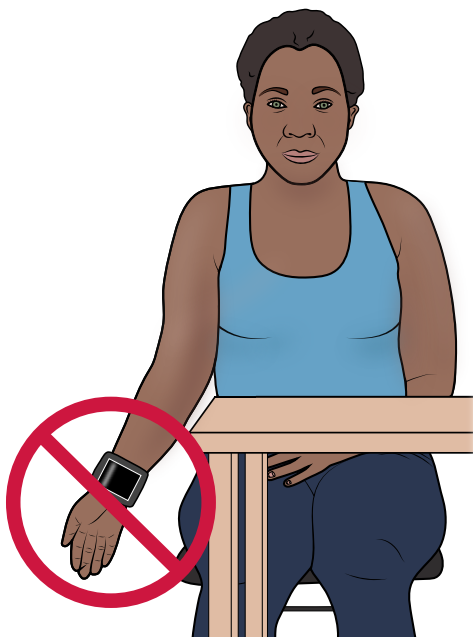
Forearm position for blood pressure reading



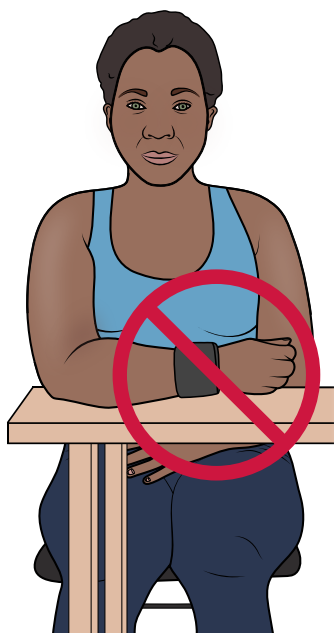
Correct Forearm Position

1. Apply the wrist device
2. Keep elbow on table or desk with forearm bent
3. Place your wrist at heart level
4. Keep arm relaxed and hand resting against your body
5. Measure wrist blood pressure without moving arm

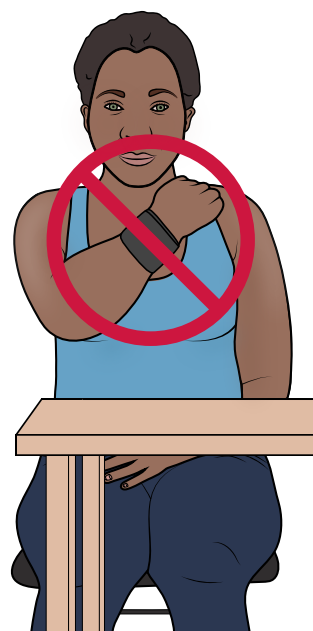
Wrong Forearm Positions



Forearm should not be straight out. Keep your elbow bent and resting on table.



Forearm should not lie flat. Keep it against your body.



Wrist is too high. Keep it at heart level.

Healthy Changes to Lower Your Blood Pressure

There are many things that you can do to lower your blood pressure. These diet and lifestyle changes include:

- **Lose weight** if you are overweight. Ask your health care provider what a healthy weight is for you.
- **Develop an exercise program** with guidance from your provider. Regular exercise improves your overall physical health, helps with weight loss, and lowers blood pressure.
- **Limit drinking alcohol.** Having more than 1 alcoholic drink a day for women or more than 2 drinks a day for men can cause problems with blood pressure.
- **Learn to relax** and take time out to do things you enjoy. Ongoing stress has been linked to high blood pressure.
- **Stop smoking or using other tobacco products.** Smoking or using other tobacco products causes your arteries to contract, which increases your blood pressure. Ask your provider about medicines to help you quit and read the book “Quitting Tobacco Use” at go.osu.edu/pted3430 for support.



Low Blood Pressure

What is low blood pressure?

Low blood pressure means that your blood pressure is lower than normal. It is also called hypotension (“hy-poh-TEN-shun”).

In healthy adults, low blood pressure may not cause problems or symptoms. In fact, it may be normal for you. But if your blood pressure drops suddenly or causes symptoms like dizziness or fainting, it is too low.

In general, low blood pressure symptoms happen when blood pressure is less than 90/60.

What causes it?

Some causes of low blood pressure include:

- Getting up quickly after you sit or lie down. This can cause a quick drop in blood pressure called orthostatic hypotension.
- Standing for a long time.
- Not drinking enough fluids (dehydration).
- Medicines such as high blood pressure medicine or other heart medicines.
- Health problems like thyroid disease, severe infection, and neuropathy.
- Trauma like major bleeding and bad burns.

What are the symptoms?

Many people with low blood pressure do not have any symptoms.

Symptoms to watch for include:

- Feeling dizzy, light-headed, or faint
- Feeling sick to your stomach or vomiting
- Feeling more thirsty than usual
- Having blurry vision
- Feeling weak
- Being confused
- Being tired
- Having cold, clammy skin
- Breathing very fast
- Having a fast heartbeat

If you have symptoms of low blood pressure, especially dizziness or fainting, call your health care provider.

Watch for symptoms of low blood pressure. Tell your provider when the symptoms happen, so they can be treated.

How is it diagnosed?

Often people learn that they have low blood pressure when their provider checks it. Or you may find that you have low blood pressure when you check it at home.

To look for the causes of your low blood pressure, your provider will ask about your past health, your symptoms, and the medicines you take. You will have a physical exam, and other tests may be done. Your provider may check for other health problems that could be causing your low blood pressure.

How is it treated?

Treatment depends on your symptoms and what is causing the low blood pressure.

Your provider may have you:

- Get fluids through an intravenous (IV) line. This helps with dehydration.
- Change or stop medicines that lower your blood pressure.
- Take medicine to treat the problem that is causing low blood pressure. For example, you may need antibiotics to treat infection or medicines to stop vomiting or diarrhea.

How can you prevent it?

If you have low blood pressure, your provider may suggest that you try some ways to prevent symptoms like dizziness. For example, your provider may recommend that you:

- Stand up slowly.
- Add more salt to your diet.
- Drink more water.
- Avoid alcohol or limit it to 1 drink a day for women and 2 drinks a day for men.
- Wear compression stockings.

Be sure to talk with your provider before you add more salt to your diet.

If you feel dizzy or light-headed, sit down or lie down for a few minutes. Or you can sit down and put your head between your knees. This will help your blood pressure go back to normal and help your symptoms go away.

If your provider prescribes medicine to help prevent a low blood pressure problem, take it exactly as prescribed.

Adapted with permission from copyrighted materials from Healthwise, Incorporated.

Taking Medicines for High Blood Pressure

High blood pressure usually cannot be cured, but it can be controlled.

Your health care provider will give you a blood pressure goal. Your goal will be based on your health and your age. Your blood pressure goal can help you prevent problems caused by high blood pressure.

- **If your blood pressure is just a little high**, and your overall risk for health problems such as heart disease is low, you may choose to try to lower your blood pressure with lifestyle changes without taking pills. If healthy habits are not enough to bring your blood pressure down to your goal, your provider may recommend that you take pills.
- **If your blood pressure is more than a little high**, or you have other risk factors such as diabetes or if your organs have already been damaged, you may want to consider taking pills in addition to lifestyle changes. The higher your blood pressure, the more benefit you will get from taking medicines.
- **If your blood pressure is very high (above 160/100)**, it is very important for you to take medicines to lower your blood pressure. Trying to do this without medicines is not safe.

Most people who take pills for high blood pressure need to take 2 or more kinds of pills that work together.

Even with pills, you will need healthy habits for the rest of your life to lower your risk for heart attack and stroke.

Adapted with permission from copyrighted materials from Healthwise, Incorporated.

What to share with your provider before taking any medicine

Tell your provider:

- If you have ever had an allergic or unusual reaction to any medicine, food, or other substance. Talk to your provider or pharmacist if you have any questions.
- If you are pregnant or if you plan to become pregnant. The use of any medicine during pregnancy must be carefully considered. Your obstetrician or pharmacist will be able to tell you about the safety of any medicines you take during pregnancy.
- If you are breastfeeding. Some medicines pass into breast milk and can cause side effects to your baby.
- If you are taking any prescription or over the counter medicines, including vitamins or herbal supplements. Certain medicines can change how your blood pressure medicine works.

What you should know about your medicines

- Please ask questions about the medicines you are taking. Write down your questions and take them with you when you visit your provider. Your pharmacist can also answer questions about the medicine when the prescription is filled.
- Learn the medicine's generic and brand names.
- Take your prescribed medicine at the same time every day according to the directions given to you by your provider.
- Ask for a refill of your medicine several days before your supply is gone.
- Talk with your pharmacist before taking any over the counter medicine. Some medicines can interfere with the way your blood pressure medicine works.
- Avoid alcohol while taking blood pressure medicine. Alcohol can cause some very serious side effects. Talk to your provider about alcohol use.
- If you miss a dose of your medicine, take the missed dose as soon as possible. Skip the missed dose if it is almost time for the next dose. Do not take 2 doses at the same time.
- Always read the label before taking any medicine. Check the date on the bottle and throw away medicines that have expired.
- Keep your medicines tightly capped in their original bottles. Never put different medicines in one bottle to store for a long time.
- Store your medicines away from heat and direct sunlight.
 - Do not put medicines in a bathroom cabinet because heat and moisture from showers may cause them to change.
 - Never store medicines in your car due to temperature extremes.
- When you travel, keep your medicines with you. Do not check them with your luggage. If your luggage is lost or delayed, you will have your medicines with you.

What precautions to follow

- Keep a record of your blood pressure results and take it to each appointment with your provider.
- Ask your provider or pharmacist about side effects that should be reported.
- Do not share your prescription medicine with others. This can be very dangerous, and it is against the law. The medicine is for you and may not be the right treatment for another person.
- Keep a list in your wallet of all the medicines you are taking. Your provider will want to see this list whenever you have an appointment.
- Before you have tests, surgery, or emergency treatment, tell your provider or dentist about all the medicines you are taking.
- Follow your provider's instructions for how to adjust your blood pressure medicines before tests or surgery.
- If you take more than is prescribed, call your provider, pharmacist, or Poison Control Centers' Poison Help Line at 1-800-222-1222 right away. The Poison Help Line offers free, confidential medical advice 24 hours a day, 7 days a week.

Medicines for High Blood Pressure

Many people with high blood pressure take oral medicines to help lower blood pressure and prevent the risk of complications such as a heart attack or stroke. These medicines will be used along with healthy lifestyle changes to help keep your blood pressure in a safe range.

Angiotensin-converting enzyme (ACE) inhibitors

ACE inhibitors lower blood pressure by blocking an enzyme that makes blood vessels narrow. As a result, the blood vessels relax and widen. These medicines also put more water and salt into urine, which can help lower blood pressure. These medicines can also be used to treat heart failure, prevent heart attacks and strokes, and can protect the kidneys (even if blood pressure values are not high).

Examples include:

- benazepril (Lotensin)
- enalapril (Vasotec)
- lisinopril (Prinivil, Zestril)
- ramipril (Altace)

It is important to know that:

- ACE inhibitors can cause a dry cough. Please talk with your provider if you notice this.
- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- Your provider will likely measure your potassium level before and after starting this medicine, as it can be increased by these medicines.
- These medicines can cause an allergic reaction called angioedema. This can cause swelling of your lips, tongue, or face. If the swelling is severe, you need treatment right away. Severe swelling can make it hard to breathe, but this is very rare.
- Do not take this medicine if you are pregnant or plan to become pregnant.

Angiotensin receptor blockers (ARBs)

ARBs lower blood pressure by blocking an enzyme that makes blood vessels narrow. As a result, the blood vessels relax and widen. These medicines also put more water and salt into urine, which can help lower blood pressure. These medicines can also be used to treat heart failure, prevent heart attacks and strokes, and can protect the kidneys (even if blood pressure values are not high).

Examples include:

- candesartan (Atacand)
- irbesartan (Avapro)
- losartan (Cozaar)
- olmesartan (Benicar)
- valsartan (Diovan)

It is important to know that:

- ARBs are very similar to ACE inhibitors, but they are much less likely to cause a dry cough or angioedema.
- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- Your provider will likely measure your potassium level before and after starting this medicine, as it can be increased by these medicines.
- Do not take this medicine if you are pregnant or plan to become pregnant.

Calcium channel blockers (CCBs)

CCBs lower blood pressure by either slowing the heart rate or widening the blood vessels. These actions lower blood pressure and lessen the amount of work the heart needs to do. These medicines are used to treat high blood pressure, angina (chest pain), and slow the heart rate.

Examples include:

- amlodipine (Norvasc)
- diltiazem (Cardizem, Dilacor, Tiazac)
- nifedipine (Procardia)
- verapamil (Calan, Isoptin, Covera)

It is important to know that:

- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- These medicines may cause swelling of the hands, feet, ankles, or lower legs.

Thiazide diuretics

Thiazide diuretics, or water pills, remove excess sodium (salt) and water from your body by increasing the flow of urine. Your heart can work better, and you may breathe easier when the extra fluid is removed from your body. These medicines are used to treat high blood pressure, heart failure, and fluid buildup in lungs, feet, or hands.

Examples include:

- chlorthalidone (Thalitone)
- hydrochlorothiazide (abbreviated HCTZ) (Hydrodiuril, Microzide)

It is important to know that:

- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- Your provider will likely measure your sodium and potassium levels before and after starting this medicine, as they can be decreased by these medicines.
- These medicines can increase the risk of dehydration, dry mouth, increased thirst, and muscle cramps because of the increased flow of urine.
- For patients with a history of gout, these medicines can increase the risk of a gout flare.
- These medicines can make a person more sensitive to the sun. Sunscreen should be worn when planning to be outside for long periods of time.

Aldosterone inhibitors

Aldosterone inhibitors are weak diuretics or water pills. These medicines hold on to potassium while getting rid of extra sodium (salt) and fluid in the body by blocking a hormone called aldosterone. This action helps lower blood pressure. These medicines may also be given to prevent heart failure from getting worse.

Examples include:

- eplerenone (Inspra)
- spironolactone (Aldactone)

It is important to know that:

- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- Your provider will likely measure your potassium level before and after starting this medicine, as it can be increased by these medicines.
- Spironolactone (Aldactone) may cause enlargement or breast tenderness of one or both breasts in men.
- If you are pregnant or plan to become pregnant, a different medicine may be preferred. Please discuss with your provider.

Beta blockers

Beta blockers improve the heart's ability to relax and block the effect of other hormones in the body (adrenaline/norepinephrine). They slow the heart rate and help control blood pressure. These medicines are used to treat high blood pressure, heart failure, and angina (chest pain), and may be used after a heart attack.

Examples include:

- atenolol (Tenormin)
- bisoprolol (Zebeta)
- carvedilol (Coreg)
- metoprolol (Toprol-XL, Lopressor)
- nebivolol (Bystolic)
- propranolol (Inderal)

It is important to know that:

- If your blood pressure becomes too low, it can make you feel dizzy, light-headed, or weak.
- This medicine can also lower your heart rate, which can make you feel dizzy, light-headed, weak, or tired.
- In people with diabetes, these medicines may increase the risk of low blood sugar and can hide some symptoms of low blood sugar, such as tremors or fast heartbeat. However, sweating may still occur if blood sugar goes low.
- These medicines can cause sexual dysfunction. Please discuss any concerns with your provider.

Over the Counter Medicines to Avoid

Some over the counter (OTC) medicines can raise your blood pressure or keep your blood pressure medicine from working the way it should. So if you have high blood pressure or other heart or blood vessel problems, you need to be careful with OTC medicines. That includes vitamins and supplements. Your doctor or pharmacist can suggest OTC medicines that are safe for you.

Some common types of OTC medicines you may need to avoid include:

- Decongestants, such as those that contain pseudoephedrine.
- Pain medicines (NSAIDs), such as ibuprofen (Advil, Motrin) and naproxen (Aleve).
- Cold and flu medicines. These often contain decongestants and NSAIDs.
- Some antacids and other stomach medicines. Many of these are high in sodium, which can raise blood pressure. So be sure to read labels carefully to check for sodium content.
- Some herbal remedies and dietary supplements. Examples are ephedra, ma huang, and bitter orange.

How can you know if it is safe to take an OTC medicine?

Always talk with your pharmacist or doctor before you take any new OTC medicine or supplement. They can:

- Check to make sure that the medicine will not interact with your blood pressure medicine.
- Suggest OTC medicines that will not affect your blood pressure.

It is also important to make a list of all the medicines you take. Bring it to each appointment, and ask your doctor to review it. Be sure to include all your prescription medicines, OTC medicines, vitamins, and herbal and dietary supplements.

Adapted with permission from copyrighted materials from Healthwise, Incorporated.

Following a Heart Healthy Diet

Nutrition plays an important role in helping to manage high blood pressure. Heart healthy eating means eating food that can help lower your risk of heart disease, heart attack, and stroke. It focuses on eating more healthy foods and cutting back on foods that are not good for you. It is part of a heart healthy lifestyle that includes regular activity and not smoking.

A heart healthy diet helps to:

- Control or decrease cholesterol and triglycerides in your blood
- Control or decrease blood pressure and fluid retention

The **DASH (Dietary Approaches to Stop Hypertension) diet** and the **Mediterranean diet** outlined in the following pages both support heart health. While both eating plans help to lower blood pressure, it is important to note that there are some similarities and differences between them. **Choose a diet that works best for you and that you can sustain.** Consider your individual preferences and personal health goals when deciding what eating plan to try.

How the eating plans are similar

Both eating plans:

- Encourage increasing fiber intake through plant foods, such as fruits, vegetables, whole grains, and legumes
- Recommend choosing lean proteins
- Recommend low fat dairy products
- Limit foods high in saturated fat and added sugar
- Limit alcohol intake

How the eating plans are different

Sodium

- DASH: limits sodium to 2,300 milligrams per day
- Mediterranean diet: limits sodium, but does not provide a specific recommendation of milligrams per day

Protein

- DASH: recommends a variety of lean proteins, such as poultry and fish
- Mediterranean diet: emphasizes eating fish or seafood at least twice per week and moderate amounts of other lean proteins

Healthy Fats

- DASH: recommends using vegetable oils
- Mediterranean diet: specifically recommends using olive oil

Overall

- DASH: more structured, as it was created with the goal of reducing blood pressure levels
- Mediterranean diet: more flexible, with the goal of promoting overall health and cardiovascular function

Questions?

Ask your provider about meeting with a dietitian to help determine an eating plan that is best for you.

Healthy Eating with the DASH Diet

The DASH diet is an eating plan that can help lower your blood pressure. DASH stands for Dietary Approaches to Stop Hypertension. Hypertension is high blood pressure.

The DASH diet focuses on eating foods that are high in calcium, potassium, and magnesium. These nutrients can lower blood pressure. The foods that are highest in these nutrients are fruits, vegetables, low fat dairy products, nuts, seeds, and legumes. But taking calcium, potassium, and magnesium supplements instead of eating foods that are high in those nutrients does not have the same effect. The DASH diet also includes whole grains, fish, and poultry.



The DASH diet is one of several lifestyle changes your doctor may recommend to lower your high blood pressure. Your health care provider may also want you to decrease the amount of sodium in your diet. Lowering sodium while following the DASH diet can lower blood pressure even further than just the DASH diet alone. Read the handouts in the “Lowering Sodium in Your Diet” section of this book for more information.

Following the DASH diet

The number of servings listed in the table are based on a 1,800 to 2,000 calorie a day diet. You may need more or less servings based on your calorie (energy) needs. Talk to your provider for advice.

Food Type	Number of Servings	Serving Size
Fruits	4 to 5 per day	<ul style="list-style-type: none">• 1 medium-sized piece of fruit• ½ cup chopped or canned fruit• ¼ cup dried fruit• 4 ounces (½ cup) fruit juice Choose fruit more often than fruit juice.
Vegetables	4 to 5 per day	<ul style="list-style-type: none">• 1 cup of lettuce or raw leafy vegetables• ½ cup of chopped or cooked vegetables• 4 ounces (½ cup) of vegetable juice Choose vegetables more often than vegetable juice.
Low Fat or Fat Free Dairy	2 to 3 per day	<ul style="list-style-type: none">• 8 ounces of milk• 1 cup of yogurt• 1½ ounces of cheese

Food Type	Number of Servings	Serving Size
Grains	6 to 8 per day	<ul style="list-style-type: none"> • 1 slice of bread • 1 ounce of dry cereal • ½ cup of cooked rice, pasta, or cooked cereal Choose whole grain products as much as possible.
Lean Meat, Poultry, and Fish	2 per day	<ul style="list-style-type: none"> • 3 ounces (about the size of a deck of cards)
Nuts, Seeds, and Legumes	4 to 5 per week	<ul style="list-style-type: none"> • ⅓ cup nuts • 2 tablespoons seeds • ½ cup cooked legumes (dried beans, lentils, or split peas)
Fats and Oils	2 to 3 per day	<ul style="list-style-type: none"> • 1 teaspoon vegetable oil • 2 tablespoons of salad dressing
Sweets and Added Sugars	5 or less per week	<ul style="list-style-type: none"> • 1 tablespoon jelly or jam • ½ cup sorbet • 1 cup of lemonade Keep sugar on the food label to less than 10 grams per serving.

Tips for success

- Start small. Do not try to make dramatic changes to your diet all at once. You might feel that you are missing out on your favorite foods and then be more likely to not follow the plan. Make small changes, and stick with them. Once those changes become habit, add a few more changes.
- Try some of the following:
 - Make it a goal to eat a fruit or vegetable at every meal and at snacks. This will make it easy to get the recommended amount of fruits and vegetables each day.
 - Try yogurt topped with fruit and nuts for a snack or healthy dessert.
 - Add lettuce, tomato, cucumber, and onion to sandwiches.
 - Combine a ready-made pizza crust with low fat mozzarella cheese and lots of vegetable toppings. Try using tomatoes, squash, spinach, broccoli, carrots, cauliflower, and onions.
 - Have a variety of cut up vegetables with a low fat dip as an appetizer instead of chips and dip.
 - Sprinkle sunflower seeds or chopped almonds over salads. Or try adding chopped walnuts or almonds to cooked vegetables.
 - Try some vegetarian meals using beans and peas. Add garbanzo or kidney beans to salads. Make burritos and tacos with mashed pinto beans or black beans.

Adapted with permission from copyrighted materials from Healthwise, Incorporated.

DASH 2 day sample menu

Day 1	Day 2
Breakfast	Breakfast
1 cup bran flakes cereal	½ cup oatmeal
1 medium banana	1 mini 100% whole wheat bagel
1 cup 1% low fat milk	1 tablespoon peanut butter
1 slice 100% whole wheat bread	1 medium apple or 1 cup other whole fruit
1 teaspoon butter or soft margarine	1 cup 1% low fat milk
½ cup orange juice or orange segments	
Lunch	Lunch
¾ cup chicken salad on 2 slices 100% whole wheat bread	Chicken breast sandwich with 3 ounces skinless chicken breast, 2 slices 100% whole wheat bread, 1 slice low fat cheddar cheese, 1 large romaine leaf, 2 slices tomato, 1 tablespoon low fat mayonnaise
Salad with ½ cup fresh cucumber slices, ½ cup tomato wedges, 1 tablespoon sunflower seeds, 1 teaspoon Italian dressing	1 cup canteloupe chunks
½ cup fruit cocktail	
Dinner	Dinner
3 ounces lean beef with 2 tablespoons fat free beef gravy	1 cup whole grain spaghetti with ¾ cup spaghetti sauce (with no meat and less than 10 grams of sugar per serving), and 3 tablespoons Parmesan cheese
1 cup green beans sauteed in ½ teaspoon olive oil	Spinach salad with 1 cup spinach leaves, ¼ cup fresh grated carrots, ¼ cup sliced mushrooms, 1 tablespoon vinaigrette dressing
1 small baked potato topped with 1 tablespoon fat free sour cream, 1 tablespoon low fat shredded cheddar cheese, 1 tablespoon chopped scallions	½ cup corn, cooked from frozen
1 small whole wheat roll with 1 teaspoon tub margarine	½ cup fresh or canned pears
1 small apple	
1 cup 1% low fat milk	
Snack	Snack
⅓ cup almonds, unsalted	⅓ cup walnuts, unsalted
¼ cup raisins	½ cup applesauce
½ cup low fat, low sugar Greek yogurt	1 low fat mozzarella string cheese

Mediterranean Diet



The Mediterranean diet is an anti-inflammatory eating pattern that focuses on increasing the amount of plants and healthy fats in your diet. An eating pattern is how you eat and drink, day in and day out. It includes the type, amount, times, and balance of meals and snacks you eat.

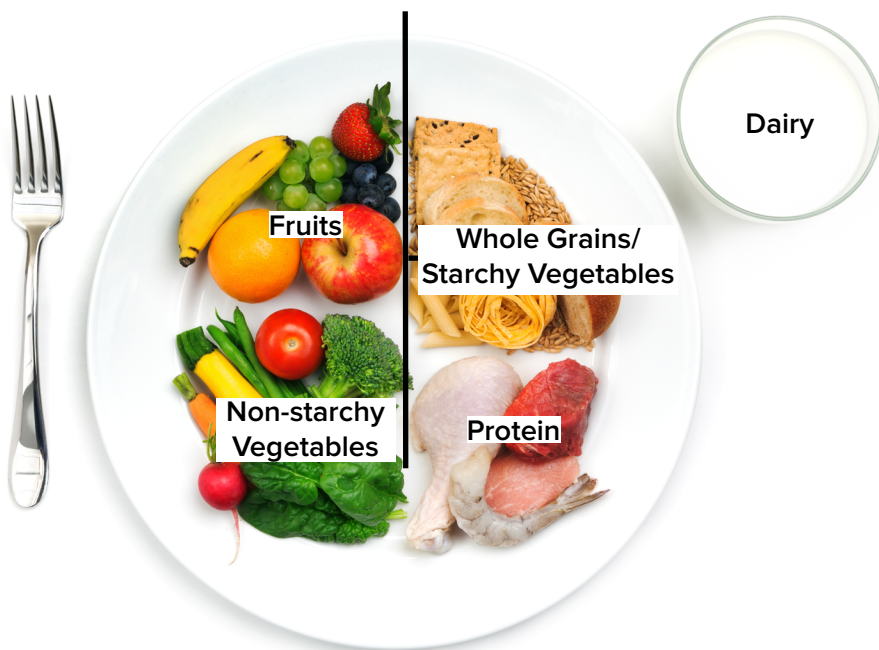
This diet encourages eating more fruits, vegetables, beans, legumes, and whole grains, so it increases the fiber in your diet. A high fiber diet supports the health of your gastrointestinal (GI) tract to improve digestion, frequency of bowel movements, nutrient absorption, and diversity of the gut microbiome. This diet also reduces the risk of heart disease, improves blood glucose (blood sugar), promotes a healthy weight, and reduces the risk of some cancers.

How to follow this diet

Eat at least 3 meals and 1 or 2 snacks a day.

Use the Plate Method to guide your eating choices at meals.

- 1. Fill ½ of the plate with fruits and/or non-starchy vegetables.**
 - “Eat a rainbow.” Choose a variety of colorful fruits and vegetables for better health.



- Choose fresh or frozen fruits and vegetables based on convenience, prices, preferences, etc.
- If choosing canned fruits, look for ones canned in their own juices.
- If choosing canned vegetables, look for low or reduced sodium options and rinse them well.
- For better tolerance, consider peeling the skin, removing the seeds, cooking, or pureeing before eating or adding to recipes.

2. Fill ¼ of the plate with whole grains or starchy vegetables (potatoes, corn, peas).

- Choose whole grains most often, such as brown rice, buckwheat, oatmeal, quinoa, whole grain cereal, whole wheat bread, whole wheat crackers, whole wheat pasta, whole wheat tortillas, and multigrain tortilla chips. The first ingredient on food labels should say “whole grain” or “whole wheat,” not “enriched flour.”



Buddha bowl with chicken breast, rice, spicy chickpeas, black quinoa, and vegetables

3. Fill ¼ of the plate with protein.

- Choose a protein source like meat, fish, eggs, dairy products, seeds and nuts, and legumes like beans and lentils.
 - Eat more plant-based protein sources like beans and lentils. If choosing canned beans, look for low or reduced sodium options and rinse them well.
 - Eat seafood or fish at least twice a week.
 - Eat low fat dairy products like milk, yogurt, and cheese.
 - Eat moderate amounts of lean protein, such as eggs and skinless chicken and turkey.
 - Limit red meats, such as beef, pork, and lamb, and processed meats, such as lunch meat and bacon.

4. Choose healthy fats.

- Use mostly plant-based fats, such as olive oil, avocado, nuts, and seeds.
- Limit animal-based fats, such as butter and red meat (beef, pork, lamb).
- Avoid fried foods.

5. Drink 64 ounces of liquid daily to stay hydrated.

- Choose sugar free, caffeine free drinks.
- Choose water most often. Other options include flavored water, carbonated water, decaf tea, and decaf coffee.

When eating a snack, combine a source of fiber (fruits, vegetables, or whole grains) with a protein source.

Examples include an apple with peanut butter, berries with yogurt, or vegetables with hummus.



Vegetables with hummus

Sample menu

Breakfast	Meal: Avocado Toast with an Egg <ul style="list-style-type: none">• 1 slice of whole wheat toast with ½ smashed avocado and 1 fried egg on top; drizzle with hot sauce and a dash of salt and pepper• 1 cup of sautéed spinach Drink: 8 ounces fat free milk
Lunch	Meal: Vegan Mediterranean Bowl <ul style="list-style-type: none">• ¼ cup soft tofu on a bed of ½ cup brown rice mixed with ¼ cup red onion, ¼ cup sliced cucumbers, ¼ cup shredded lettuce, and ½ cup hummus. Sprinkle with 2 tablespoons feta cheese Drink: 8 ounces water
Snack	Snack: Berries and Yogurt <ul style="list-style-type: none">• ¾ cup berries mixed with 1 container (6 ounces) plain nonfat Greek yogurt Drink: 8 ounces water
Dinner	Meal: Asian Shrimp Bowl <ul style="list-style-type: none">• 3 ounces cooked shrimp mixed with ¼ cup cooked broccoli florets, ¼ cup steamed carrots, ¼ cup sliced mushrooms, cooked with 1 tablespoon extra virgin olive oil• Sauce: ⅔ cup chicken broth, ⅓ cup coconut amino acids, 1 tablespoon rice vinegar, 2 tablespoons corn starch• 1 cup brown rice Drink: 8 ounces water
Snack	Snack: Apple and Peanut Butter <ul style="list-style-type: none">• Small apple (sliced) topped with 2 tablespoons peanut butter Drink: 8 ounces fat free milk

Resources for recipes

- EatingWell magazine at eatingwell.com
- Oldways at oldwayspt.org/traditional-diets/mediterranean-diet
- “The 30-Minute Mediterranean Diet Cookbook: 101 Easy, Flavorful Recipes for Lifelong Health” by Serena Ball, RD, and Deanna Segrave-Daly, RD
- “The Complete Mediterranean Cookbook: 500 Vibrant, Kitchen-Tested Recipes for Living and Eating Well Every Day” by America’s Test Kitchen
- “Mediterranean Diet Cookbook for Beginners: 365 Days of Quick & Easy Mediterranean Recipes for Clean & Healthy Eating” by Debby Hayes

Healthy Snacks



Snacking can be a part of a healthy diet, ensuring your body gets the energy it needs every 3 to 5 hours. This helps to control appetite. A snack, as opposed to a treat, is a “mini meal” meant to provide nutrients your body needs. Snacks that combine carbohydrates with fiber and protein and that are low in sugar are better at controlling appetite.

Create a healthy snack

Choose one food item from the carbohydrate (carb) list and one food item from the protein list to create a healthy, balanced snack, such as 1 cup non-starchy vegetables (carb) and $\frac{1}{3}$ cup hummus (protein).

Carb

- 1 small apple
- $\frac{1}{2}$ large banana or pear
- $\frac{3}{4}$ cup blueberries
- $\frac{1}{2}$ cup fruit, such as grapes, pineapple, or peaches
- 2 tablespoons raisins
- 1 cup non-starchy vegetables such as carrots, cucumber, sugar snap peas, and bell pepper strips
- $\frac{1}{2}$ cup cooked oatmeal
- 5 to 6 whole wheat crackers
- 3 (2.5 inch) graham crackers
- $\frac{1}{2}$ whole wheat pita
- 1 slice whole wheat toast
- $\frac{1}{2}$ whole wheat toasted English muffin
- 1-2 rice cakes
- 3 cups popcorn with less than 3 grams of fat per serving

Protein

- 1 tablespoon natural peanut butter or other nut butter
- $\frac{1}{2}$ cup tuna, chicken, or egg salad made with light mayonnaise
- 1 hard-boiled egg
- 1 scrambled egg
- $\frac{1}{4}$ cup nuts, such as walnuts and almonds
- 1 ounce cheese
- $\frac{1}{2}$ cup low fat cottage cheese
- 6 ounces plain or light yogurt
- $\frac{1}{3}$ cup hummus
- 2 to 3 slices of low fat lunch meat
- 1 ounce jerky
- $\frac{1}{2}$ cup roasted chickpeas
- 1 ounce of seeds, such as sunflower and pumpkin

Healthy snack ideas

Each snack has a carb and a protein.

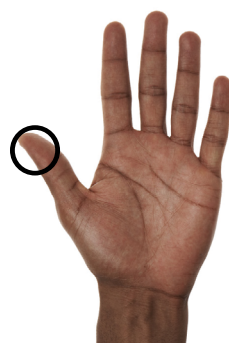
- 3 (2.5 inch) graham crackers (carb) with 1 tablespoon natural peanut butter (protein)
- ½ whole wheat pita (carb) filled with ½ cup tuna salad made with light mayonnaise (protein)
- 1 small apple (carb) with a hard-boiled egg (protein)
- ½ cup cooked oatmeal (carb) with ¼ cup chopped nuts (protein)
- 5 to 6 whole wheat crackers (carb) with 1 ounce cheese (protein)
- 1 cup non-starchy vegetables such as carrots, cucumber, sugar snap peas, and bell pepper strips (carb) with 1/3 cup hummus (protein)
- 2 tablespoons raisins (carb) and ¼ cup roasted unsalted almonds (protein)
- ½ cup peaches (carb) and ½ cup low fat cottage cheese (protein)
- ¾ cup blueberries (carb) and ¼ cup walnuts (protein)
- Celery topped with 2 tablespoons raisins (carbs) and 1 tablespoon natural peanut butter (protein)
- 1 slice whole wheat toast (carb) with 1 scrambled egg (protein)
- ½ cup grapes (carb) and 1 ounce cheese (protein)
- ½ whole wheat toasted English muffin (carb) topped with 1 tablespoon cashew butter (protein)
- 3 cups popcorn with less than 3 grams of fat per serving (carb) and 1 ounce cheese (protein)

Standard portions

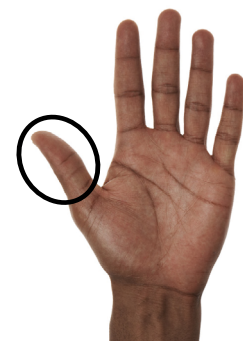
When you are away from home and do not have measuring cups and spoons handy, it helps to know what a standard portion looks like.



1 teaspoon



1 tablespoon



2 tablespoons



¼ cup



½ cup



1 cup



1 ounce

Lowering Sodium in Your Diet

What is sodium?

Sodium is a mineral that is needed for good health and is present in all foods. Most people eat more sodium than they need. If the body cannot get rid of the extra sodium, fluid builds up. Extra fluid increases the work of the heart and kidneys, and may increase blood pressure. Eating less sodium may help control these problems. You will sometimes see the term sodium abbreviated “Na,” as in NaCl (sodium chloride), which is table salt.

The current guideline for how much sodium to eat is less than 2,300 milligrams (mg). The guideline may be even lower if you have certain health conditions, like high blood pressure. These sodium limits can be hard for some people to stay under, especially if they are eating large amounts of sodium now. Many people can lower the amount of sodium they eat by making small changes to their diets. This handout can help you start to do this. For information on reducing sodium in your diet even more, ask for the handout “Low Sodium (2,000 mg) Diet” or visit go.osu.edu/pted1218.

Read food labels

Look for sodium on a food product’s food label to help you choose foods that are healthier for you.

Nutrition Facts Food Label

List the amount of sodium in milligrams (mg) per serving. Be aware of the serving size.

Sodium Guidelines

Even low sodium or sodium-free foods contain small amounts of sodium. Look for these food labels to help you choose foods that are healthier for you:

- **Sodium free:** less than 5 mg of sodium per serving
- **Very low sodium:** 35 mg or less per serving
- **Low sodium:** 140 mg or less per serving
- **Reduced sodium:** usual sodium level is reduced by 25%
- **Unsalted, no salt added, or without added salt:** made without salt, but still has sodium, which is a natural part of the food product

Nutrition Facts	
4 servings per container	
Serving size	1 1/2 cup (208g)
Amount per serving	
Calories	240
% Daily Value*	
Total Fat 4g	5%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 430mg	19%
Total Carbohydrate 22g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

How can I limit sodium?

Know Your Salt

Even a small amount of salt has a lot of sodium in it.

- $\frac{1}{4}$ teaspoon salt = 575 mg sodium
- $\frac{1}{2}$ teaspoon salt = 1,150 mg sodium
- $\frac{3}{4}$ teaspoon salt = 1,725 mg sodium
- 1 teaspoon salt = 2,300 mg sodium



Follow These General Tips

- Slowly cut back on the amount of salt that you add when cooking or eating until you **do not use any salt**.
- Avoid foods where large amounts of salt or sodium have been added.
- Avoid seasoned salts. These include onion salt, celery salt, lite salt, low-sodium salt, and sea salt. Ac'cent®, meat tenderizers, and lemon pepper should also be avoided.
- Be careful if you choose a salt substitute. Many substitutes have large amounts of potassium in them, which can cause medical problems for some people. Lite salts contain sodium in smaller amounts, but they are still too high for people who need to restrict sodium. Ask your doctor or dietitian if a salt substitute is okay for you.
- Use pepper, Dash™, lemon/lemon juice, vinegar, garlic powder, onion powder, or other herbs and spices to season your food.

Choose Foods That Are Low In Sodium

- Fresh, frozen, and canned fruits and vegetables without salt
- Fresh meats without added salt, including beef, poultry, fish, and game
- Rice, pasta or noodles, grains, and flour (except self-rising)
- Dried beans, peas, lentils, and unsalted nuts and seeds
- Foods that are processed with no or little sodium. Check food label for no salt, sodium free, no added salt, unsalted, or low sodium.

Avoid Foods That Are High In Sodium

- Processed cheese, such as sandwich slices, cheese spread, cottage cheese, and Velveeta®
- Processed meats, such as sausage, bacon, ham, hot dogs and links, and luncheon or deli meats and those injected with a sodium solution
- Canned soups and vegetables (except no added salt options)
- Foods that are dried, cured, smoked, or pickled
- Products made with baking soda and baking powder, such as self-rising flour, most baking mixes, canned bread products, and frozen pancakes and waffles

Food choices matter!

According to the Centers for Disease Control and Prevention (CDC), about 40% of the sodium consumed by Americans comes from the following foods:

- Deli meat sandwiches
- Pizza
- Burritos and tacos
- Soups
- Savory snacks, such as chips, crackers, and popcorn
- Poultry
- Pasta mixed dishes
- Burgers
- Egg dishes and omelets

But remember, the sodium content can vary greatly between similar types of foods. So, use the Nutrition Facts food label to compare products, and do not forget to check the serving size in order to make an accurate comparison.

For example, selecting lower sodium products when making a turkey sandwich can save you over 600 mg of sodium!

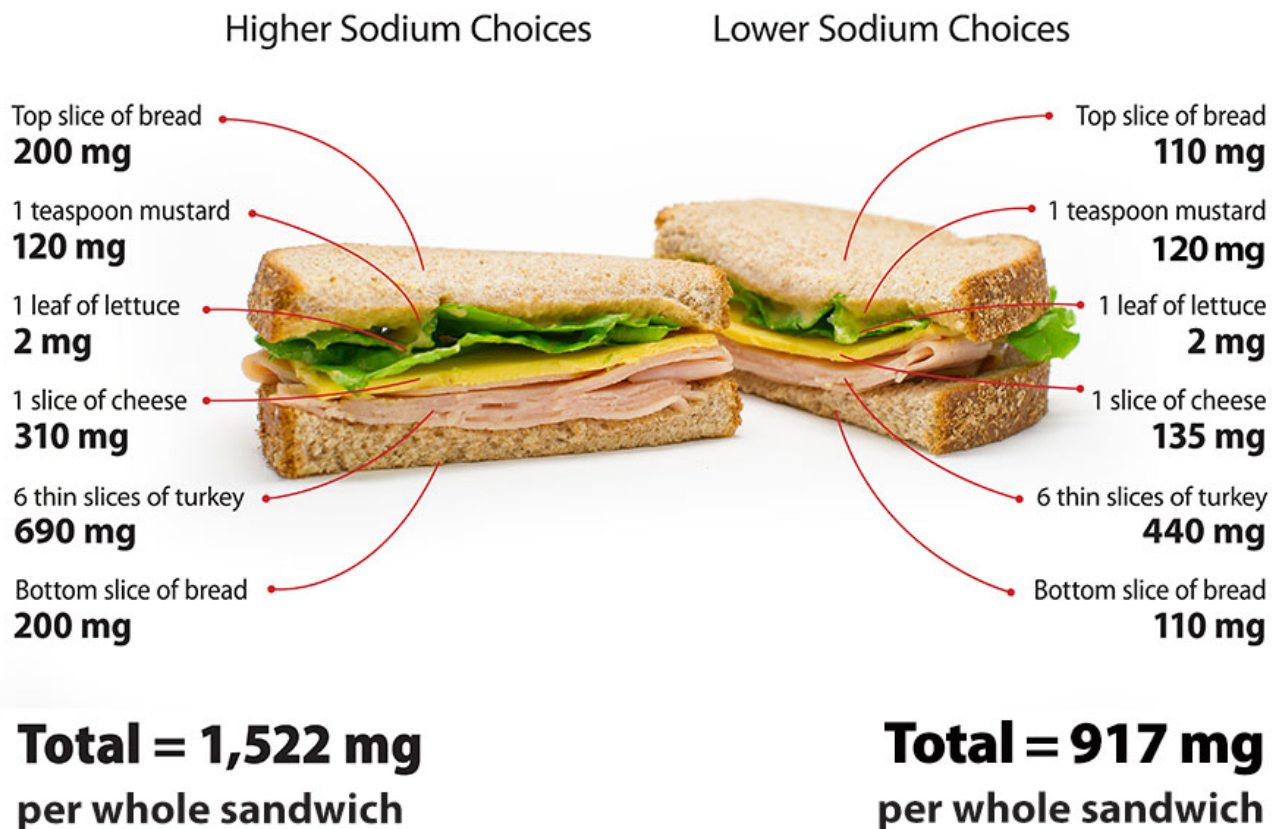


Image by Centers for Disease Control and Prevention at https://www.cdc.gov/salt/reduce_sodium_tips.htm

Low Sodium Food Swaps

Sodium can sneak up on you. Here are some ideas for switching to lower sodium food products as an easy way to reduce sodium in your diet.

- **Peanut butter:** Choose a natural or no salt added peanut butter and save **about 250 mg** of sodium per serving
- **Spaghetti and pasta sauce:** Choose a low sodium sauce and save **about 500 mg** of sodium per serving
- **Cheese:** Choose a low sodium cheese, such as Swiss or mozzarella, and save **about 275 mg** per serving
- **Oats:** Choose quick 1 minute, rolled oats, or steel cut oats and save **about 270 mg** of sodium per serving
- **French fries:** Choose baked over deep-fried and salted and save **about 310 mg** of sodium per serving
- **Vegetable juice:** Choose a low sodium vegetable juice and save **about 445 mg** of sodium per serving
- **Bagels:** Choose mini whole wheat bagels and save **about 320 mg** of sodium per serving
- **Popcorn:** Choose a no salt added popcorn and save **about 360 mg** of sodium per serving
- **Canned beans:** Choose a no salt added can and save **about 465 mg** of sodium per serving
- **Ketchup:** Choose no salt added and save **about 190 mg** of sodium per serving

Seasoning Food without Salt

It is recommended that Americans consume less than 2,300 milligrams (mg) of sodium each day as part of a healthy eating pattern. If you have high blood pressure (hypertension) or blood pressure that is slightly higher than normal (prehypertension), your health care provider may recommend that you reduce sodium in your diet to 1,500 mg per day.

To reduce sodium in your diet, buy ingredients that are low in sodium and prepare food at home, using seasonings other than salt.

Prepare food with herbs and spices for flavorful meals

- Use herbs and spices to replace or reduce the amount of salt that you use. See the table for ideas.
- Avoid most salt substitutes, unless it is a Dash™ seasoning blend or approved by your provider. Avoid most “lite” salts as they have too much sodium for a very low sodium diet. Many salt substitutes have potassium chloride instead of sodium, which may cause medical problems in some people.

Herbs and Spices to Try

Herb or spice	Taste	Use
Allspice	Clove, nutmeg, and cinnamon all in one – pungent and deeply flavored	Marinades, meats, and desserts
Basil	Sweet and pungent	Italian dishes, soups, vegetables, and marinades
Bay leaves	Mild, bitter, and woody	Seafood, stews, most meats, and vegetables
Cayenne pepper or red pepper flakes	Spicy and hot	Chili, vegetable dishes, dips, and spicy dishes
Celery seeds	Mild and nutty	Fish, salads, dressings, and vegetables
Chili powder	Spicy and smoky	Soups, chili, vegetables, and other spicy dishes
Cilantro	Tangy, citrus	Fish, rice, salads, and dressings
Cinnamon	Sweet and earthy	Salads, vegetables, fruits, oatmeal, breads, and snacks
Cloves	Bittersweet	Fruits, stews, and spicy foods
Cumin	Smoky and earthy	Meats and poultry

Herb or spice	Taste	Use
Curry	Spicy	Vegetables, meats, and shellfish
Dill	Mild and slightly sour	Most meats, fish, vegetables, and dips
Garlic	Pungent	Soups, stews, vegetables, salads, meats, fish, poultry, and sauces
Ginger	Pungent and spicy bite	Soups, salads, meats, vegetables, and Asian cuisines
Lemon or lime juice or zest	Pungent and fresh	Vegetables, salads, and dressings
Lemongrass	Pungent	Soups, stews, meats, poultry, fish, and sauces
Marjoram	Bitter, spicy, and pungent	Soups, stews, beef, poultry, fish, and vegetables
Mint or mint jelly	Sweet, clean, and refreshing	Fruit salads, rice, marinades, or in place of basil for pesto
Nutmeg	Sweet	Vegetables and meats
Onion powder	Pungent	Meats, poultry, seafood, soups, and salads
Oregano	Earthy and lemony	Soups, salads, pizza or pasta sauce, vegetables, meats, and poultry
Paprika	Sweet but can be spicy	Meats, fish, poultry, and vegetables
Parsley	Mild pepper	Garnish soups, salads, and sauces
Pepper – white, black, lemon pepper	Pungent and spicy	Any dish to add more spice
Rosemary	Pungent and piney	Salads, vegetables, meats, poultry, and fish
Sage	Strong	Soups, salads, vegetables, meats, and poultry
Thyme	Pungent and lemony	Salads, vegetables, fish, and poultry
Turmeric	Earthy, bitter, peppery, spice	Rice, chili, roasted vegetables, and soups
Vinegar	Acidic and spicy	Soups, salads, vegetables, meats, and poultry

Avoid or limit these products high in sodium

- Alfredo sauce and mixes
- Barbecue mixes and sauces
- Bouillon cubes, canned stock, or canned broth – Choose no salt or low salt stock or broth
- Baking soda and baking powder
- Celery salt, garlic salt, onion salt, sea salt, Kosher salt, lite salt, other seasonings with salt, and most salt substitutes
- Cooking wine or cooking sherry
- Dry meat marinades or marinade mixes
- Salad dressing mixes or packets
- Dry instant soup mixes
- Fish sauce or plum sauce
- Gravy mixes
- Meat tenderizer
- Monosodium glutamate (MSG)
- Mustard – Limit to 1 teaspoon a day
- Pickle relish and pickles
- Packaged pickling mixes
- Packaged “instant” products, such as flavored rice and ready-made pasta
- Poultry seasoning
- Ketchup – Use low salt ketchup and limit to 1 to 2 tablespoons a day
- Soy sauce, steak sauce, stir fry sauces, taco sauce, teriyaki sauce, or Worcestershire sauce
- Tomato sauce – Use low salt or no salt varieties
- Vegetable juices – Use low salt or no salt varieties with less than 150 mg of sodium per serving

Cooking Suggestions and Recipes for a Low Sodium Diet

A good way to reduce the sodium in your diet is to cook your own food. This way, you control what goes into the food you eat. Below are tips for lowering the sodium when you cook. This is important for people with kidney or liver disease and for people following a heart healthy diet.



Tips for reducing sodium in recipes

- Eliminate salt in recipes except when making baked goods as this will change the chemical reaction.
- Use herbs and spices in place of salt for added flavor. In general, use $\frac{1}{4}$ teaspoon dried herbs for 4 servings of food. Gently crush fresh herbs between your fingers to bring out their flavors. Add herbs during the last hour of cooking when used in long cooking recipes, such as soups and stews.
- Season meat by rubbing uncooked meat with garlic and/or other spices. Refrigerate rubbed meat for 1 to 2 hours before cooking to allow meat to absorb the flavors.
- Use unsalted chicken or beef stock, low sodium broths, or low sodium bouillon in place of bouillon cubes, instant packaged canned soups, and regular stocks or broths. Boil chicken or beef and use broth for cooking. Be cautious with low sodium and no sodium bouillon products if you are on a potassium restricted diet.
- Increase flavor by adding onion, garlic, green onion, shallots, or leeks to recipes, or by increasing the amount of these ingredients called for in recipes. Also try adding citrus juice (lemon, lime, or orange) or vinegar (white, red wine, apple cider, balsamic, or rice) to add more flavor.
- In sandwiches, use lettuce, cucumbers, or tomatoes for moisture instead of prepared mayonnaise or ketchup. Some condiments, like prepared mustard, may be low in sodium. Read the label for the sodium content.
- Before broiling or roasting chicken, rub with lemon juice or vinegar, herbs, and a bit of oil. You also can use this mixture to marinate meat poultry or fish, or use low calorie/low sodium salad dressing. Marinate meats for at least 2 hours and fish for $\frac{1}{2}$ hour.

Spice shaker herb blends

Instead of salt or salt substitute, you may use a Dash™ seasoning blend or one of these herb blends.

Directions: In each blend, mix the ground form of the herbs together and put into a labeled shaker. If ground form is not available, pulverize the seasoning blend in a blender or food processor before filling the shaker.

Blend 1:

2 teaspoons thyme
2 teaspoons marjoram
2 teaspoons rosemary
2 teaspoons sage

Blend 2:

1 teaspoon sage
1¾ teaspoon marjoram
1¾ teaspoon savory
1¾ teaspoon rosemary
1¾ teaspoon thyme

Seasoning ideas for meats and eggs:

Beef	Basil, bay leaf, curry, dill, dry mustard, green pepper, horseradish, marjoram, fresh mushrooms, nutmeg, onion, pepper, thyme
Chicken	Fresh mushrooms, paprika, parsley, thyme, sage, lemon pepper
Lamb	Curry, dill, garlic, mint, mint jelly, rosemary
Pork	Apples, unsweetened applesauce, garlic, onion, sage
Veal	Bay leaf, curry, ginger, marjoram, oregano
Fish	Bay leaf, dill, dry mustard, green pepper, lemon juice, lemon slices, marjoram, fresh mushrooms, paprika, unsweetened orange juice, fresh dill
Egg or Egg Substitute	Curry, dry mustard, green pepper, onion, fresh mushrooms, paprika, parsley, tomato, basil

Low sodium recipes

Salt Free Gravy

2 tablespoons unsalted butter or margarine
¼ teaspoon onion powder (not salt)
3 tablespoons flour
¼ teaspoon pepper
2 low sodium bouillon cubes (beef or chicken)
¾ cup boiling water

1. Melt butter or margarine in skillet.
2. Add flour and brown.
3. Combine crumbled bouillon cube, onion powder, and boiling water.
4. Add liquid mixture slowly to browned flour mixture stirring constantly.

Yield: 1 cup.

Sodium per 1 cup: 2 mg

Sandwich Spread

1 cup plain, non-fat Greek yogurt
2 tablespoons mustard
Dash of paprika

1. Mix all ingredients in a bowl, store in an airtight container, and refrigerate.
2. Variation: Instead of mustard and paprika, mix in 2 teaspoons lemon juice, 1 teaspoon white vinegar, ½ teaspoon garlic powder, ½ teaspoon dried parsley, ½ teaspoon dried dill, ½ teaspoon dried chives, ½ teaspoon onion powder, ¼ teaspoon black pepper, and ⅛ teaspoon salt. Nutrition information is the same.

Nutrients per 1 tablespoon serving: 8 calories, 1 g protein, 0 g fat, 0 g carbs, 0 g fiber, 28 mg sodium.

Herb Salad Dressing or Marinade

1½ teaspoon oregano	¼ teaspoon dill weed
½ teaspoon sweet basil	¼ cup vinegar
¼ teaspoon tarragon	¼ teaspoon garlic powder
¼ teaspoon garlic powder	1 tablespoon lemon juice
¼ teaspoon ground black pepper	½ teaspoon sugar
¼ teaspoon onion powder	1 cup olive oil
¼ cup water	

1. Put oregano, basil, tarragon, garlic powder, pepper, and onion powder into blender and blend for 1 minute.
2. Add remaining ingredients and blend another minute.

Mushroom Barley Soup

2 tablespoons canola oil	¼ to ½ teaspoon ground black pepper
⅓ cup sherry cooking wine	12 ounces sliced fresh mushrooms
1 large onion, chopped (1 cup)	¼ teaspoon dried thyme
2 garlic cloves, minced	6 cups water
1 medium parsnip, peeled, and chopped (4 ounces)	¼ cup chopped fresh parsley
1½ tablespoons low sodium soy sauce	4 packets low sodium beef broth and seasoning mix
1 bay leaf	½ cup uncooked barley
1½ cups sliced carrots (3 medium)	

1. In 3 or 4 quart saucepan over medium-high heat, heat oil.
2. Add onion and garlic and cook, stirring 1 minute.
3. Add parsnip and carrots and cook, stirring, 1 minute.
4. Add mushrooms and cook, stirring, 2 to 3 minutes or until tender.
5. Add water, barley, wine, broth and seasoning mix, soy sauce, bay leaf, pepper, and thyme.
6. Stir to blend.

7. Bring to a boil.
8. Reduce heat, cover, and simmer 50 to 55 minutes or until barley is tender.
9. Remove bay leaf.
10. Garnish with parsley.

Makes 8 servings, about 1 cup each.

Nutrients per 1 cup serving: 125 calories, 0 mg cholesterol, 4 g fat, 3 g protein, 125 mg sodium.

Vegetable Pizza

1 ½ cups whole wheat flour, divided

⅓ cup chopped onion

1 teaspoon active dry yeast

1 (8 ounce) can low sodium tomato sauce

1 teaspoon sugar

1 small green pepper, cut into rings

½ cup warm water (120 to 130 degrees F)

4 ounces shredded part skim mozzarella cheese

1 tablespoon olive oil, divided

1 tablespoon freshly grated Parmesan cheese

½ pound mushrooms, sliced (about 2 ¾ cups)

1. In medium-size bowl, combine ¾ cup flour, yeast, and sugar; add water and 2 teaspoons oil. With mixer at low speed, beat until flour is just moistened. Gradually stir in remaining flour to make a soft dough.
2. On lightly floured surface, knead dough 5 minutes or until smooth and elastic. Place dough in greased bowl, turning to expose greased portion. Cover with towel; set aside in warm place to rise 45 minutes or until doubled.
3. Meanwhile, in large nonstick skillet over medium-high heat, heat remaining oil. Add mushrooms and onion and cook, stirring occasionally, 5 minutes or until tender.
4. Punch down dough. Spray 12-inch round pizza pan with nonstick cooking spray. Form dough to fit pan. Spread tomato sauce over dough. Arrange green pepper rings. Sprinkle with mushroom-onion mixture. Sprinkle with mozzarella and Parmesan cheeses. Bake 15 to 20 minutes or until crust is browned.

Makes 8 servings.

Nutrients per serving: 155 calories, 9 mg cholesterol, 8 g protein, 90 mg sodium, 5 g fat.

Cream of Potato Soup

2 tablespoons unsalted butter or margarine	¼ teaspoon celery seed
¼ cup chopped fresh parsley	1½ cups peeled diced potato (1 large)
½ cup chopped onion	⅛ teaspoon ground black pepper
¼ teaspoon dried thyme	1 cup low sodium chicken broth
¼ cup chopped celery	1½ cups fat free skim milk

1. In medium-size saucepan over medium-high heat, melt butter or margarine. Add onion and celery and cook, stirring frequently, 4 minutes or until soft. Add potatoes, chicken broth, parsley, thyme, celery seed, and pepper; bring to a boil. Reduce heat, cover, and simmer 15 minutes or until potatoes are almost tender. Add milk; simmer uncovered, stirring occasionally, 5 minutes.
2. In blender at medium speed, blend about a quarter of the mixture at a time until smooth. Return to saucepan; heat about 1 minute.

Makes 4 servings, about 1 cup each.

Nutrients per serving: 130 calories, 2 mg cholesterol, 6 g fat, 7 g protein, 90 mg sodium.

Chicken Honey Nut Stir Fry

1 pound boneless chicken breasts	¼ teaspoon ground ginger
¾ cup orange juice	2 tablespoons canola oil, divided
⅓ cup honey	2 large carrots, diagonally cut
2 tablespoons lite soy sauce	1 cup broccoli florets
1 tablespoon cornstarch	½ cup cashews or peanuts, unsalted

1. Cut chicken into thin strips and set aside.
2. In a small bowl, combine orange juice, honey, soy sauce, cornstarch, and ginger; mix well.
3. Heat 1 tablespoon oil in a large skillet over medium heat. Add carrots and broccoli; stir fry about 3 minutes. Remove vegetables and set aside.
4. Add remaining 1 tablespoon oil into skillet. Add meat, stir fry about 3 minutes.
5. Return vegetables to skillet; add sauce mixture and nuts. Cook and stir over medium-high heat until sauce is thickened. Serve over hot rice.

Makes 4 to 6 servings.

Nutrients per serving: 548 calories, 95.6 mg cholesterol, total fat = 95.6 mg, 326 mg sodium, 3.6 g saturated fat.

Low Sodium 3 Day Sample Menu

This 3 day sample menu provides less than 2,000 calories and less than 2,000 milligrams (mg) of sodium a day.

Day 1 menu

Breakfast

- Cooked oatmeal:
 - ½ cup oatmeal cooked
 - 1 cup fat free, skim milk
 - 1 tablespoon honey
 - 1 tablespoon unsalted peanut butter
 - 1 medium apple

Total: 426 calories; 127 mg sodium

Lunch

- Chicken salad:
 - 3 ounces baked, skinless, chicken breast, cooked with 1 tablespoon olive oil
 - 1 tablespoon mayonnaise
 - 1 teaspoon mustard
 - ¼ cup sliced grapes
 - 2 tablespoon diced celery
 - Pepper to taste
- 1 cup raw spinach
- 1 medium apple on the side

Total: 493 calories; 352 mg sodium

Dinner

- Protein and vegetable rice bowl:
 - Protein choices:
 - 4 ounces cooked/grilled salmon (cooked with 1 tablespoon olive oil)
 - or
 - 3 ounces cooked/grilled chicken (cooked with 1 tablespoon olive oil)

- ½ cup brown rice
- 3 tablespoons fresh, diced tomatoes
- ½ cup sliced carrots
- ½ cup cooked broccoli
- Pepper to taste
- Honey Dijon mustard vinaigrette:
 - 1 tablespoon olive oil
 - ½ teaspoon white vinegar
 - ½ teaspoon water
 - 1 tablespoon honey
 - 1 teaspoon Dijon mustard

Total: 410 calories; 330 mg sodium

Total calories and sodium for 3 meals = 1,330 calories; 813 mg sodium

Snacks — Day 1

Choose 2 to 4 snacks to have in between your meals:

- 1 bell pepper, 2 tablespoons hummus, and 1 cheese stick (165 calories; 292 mg sodium)
- 1 apple with 2 tablespoons peanut butter and 10 whole wheat crackers (373 calories; 142 mg sodium)
- 1, 6-ounce low fat or fat free yogurt with ½ cup fresh fruit and ¼ cup unsalted nuts (237 calories; 121 mg sodium)
- 1 cup chocolate milk and 1 orange (278 calories; 152 mg sodium)
- 2 tablespoons raisins and 1 hard-boiled egg (201 calories; 76 mg sodium)

Day 2 menu

Breakfast

- Yogurt bowl:
 - ¾ cup low fat or fat free yogurt
 - ½ cup fresh fruit, such as strawberries, raspberries and blueberries
 - 2 tablespoons unsalted mixed nuts
 - 1 tablespoon almond butter

Total: 415 calories; 121 mg sodium

Lunch

- Burrito:
 - 2 small corn tortillas
 - 2 tablespoons mango salsa made with diced mango, red pepper, onion, cilantro, jalapeno and lemon juice
 - 3 ounces 93% lean ground turkey, cooked with 1 tablespoon olive oil
 - 2 tablespoons sliced avocado
 - 2 tablespoons shredded cheese
- ½ cup strawberries on the side

Total: 442 calories; 290 mg sodium

Dinner

- Baked salmon and herbed quinoa:
 - 4 ounces baked salmon (or your choice of fish)
 - 1 tablespoon olive oil
 - 1 teaspoon minced garlic
 - Black pepper
 - 2 fresh lemon slices (bake with salmon)
 - 1 cup quinoa with 1 tablespoon olive oil, ¼ teaspoon dried basil, and ¼ teaspoon dried oregano
- ½ cup asparagus

Total: 520 calories, 113 mg sodium

**Total calories and sodium for 3 meals =
1,380 calories; 524 mg sodium**

Snacks — Day 2

Choose 2 to 4 snacks to have in between your meals:

- 1 bell pepper, 2 tablespoons hummus, and 1 cheese stick (165 calories; 292 mg sodium)
- 1 apple with 2 tablespoons peanut butter and 10 whole wheat crackers (373 calories; 142 mg sodium)
- 1, 6-ounce low fat or fat free yogurt with ½ cup fresh fruit and ¼ cup unsalted nuts (237 calories; 121 mg sodium)
- 1 cup chocolate milk and 1 orange (278 calories; 152 mg sodium)
- 2 tablespoons raisins and 1 hard-boiled egg (201 calories; 76 mg sodium)

Day 3 menu

Breakfast

- Eggs and toast:
 - 2 eggs scrambled or cooked, no salt added, cooked with 1 tablespoon olive oil -- you may add a ½ teaspoon of hot sauce for more flavor
 - 1 slice whole grain bread
 - 1 ½ teaspoons unsalted butter
- 1 orange

Total: 471 calories; 304-366 mg sodium

Lunch

- Hummus and vegetable wrap:
 - 1 small corn tortilla wrap
 - 2 tablespoons hummus
 - Sliced carrots
 - Raw spinach leaves
 - 2 tablespoons sliced avocado
 - Bean sprouts
 - Cucumber slices
- 1 medium apple on the side

Total: 275 calories; 160 mg sodium

Dinner

- Turkey burger and sweet potato fries:
 - 3-ounce turkey patty
 - 1 whole wheat bun
 - 1 tomato slice
 - 1 tablespoon avocado slices
 - Lettuce
 - Baked sliced sweet potato fries with olive oil, no salt added

Total: 705 calories; 412 mg sodium

**Total calories and sodium for 3 meals =
1,450 calories and 940 mg sodium**

Snacks — Day 3

Choose 2 to 4 snacks to have in between your meals:

- 1 bell pepper, 2 tablespoons hummus, and 1 cheese stick (165 calories; 292 mg sodium)
- 1 apple with 2 tablespoons peanut butter and 10 whole wheat crackers (373 calories; 142 mg sodium)
- 1, 6-ounce low fat or fat free yogurt with ½ cup fresh fruit and ¼ cup unsalted nuts (237 calories; 121 mg sodium)
- 1 cup chocolate milk and 1 orange (278 calories; 152 mg sodium)
- 2 tablespoons raisins and 1 hard-boiled egg (201 calories; 76 mg sodium)

Foods High in Potassium

Most Americans eat too little potassium. If your potassium level is low, increasing your intake of potassium can help decrease your blood pressure, reducing your risk for heart disease and stroke. If your potassium level is high, decreasing your intake may be important. **Follow the instructions from your health care provider as to whether you need to increase or decrease potassium in your diet.**

You can find potassium content and percent Daily Values (%DV) on Nutrition Facts food labels for packaged foods. **Aim for 3,500 to 5,000 mg of potassium a day.**

The foods listed below are high in potassium.

Nutrition Facts	
6 servings per container	
Serving size	1 cup (140g)
Amount per serving	
Calories	170
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 5mg	0%
Total Carbohydrate 22g	8%
Dietary Fiber 2g	7%
Total Sugars 16g	
Includes 8g Added Sugars	16%
Protein 2g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 240mg	6%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Food	Serving Size	Amount of Potassium in Milligrams (mg)
Fruit		
Avocado	1 cup, sliced	708
Plantain	1 cup, sliced	739
Banana	1 medium	422
Orange	1	237
Orange juice	1 cup (8 ounces)	496
Cantaloupe	1 cup	427
Dates	¼ cup	250
Grapefruit, white	1 half	175
Grapefruit, pink or red	1 half	166
Honeydew melon	1 cup	388
Kiwi	1 medium	237
Mango	1	323
Papaya	1 cup	360
Peach	1 cup	323

Food	Serving Size	Amount of Potassium in Milligrams (mg)
Prunes	¼ cup	319
Raisins, seedless	¼ cup	250
Vegetables		
Beets	1 cup	442
Black beans, boiled	½ cup	400
Carrot juice	½ cup (4 ounces)	345
Chinese cabbage, pak-choi, boiled	½ cup	315
Collards, boiled, chopped	1 cup	222
Edamame, cooked	½ cup	338
Lentils, boiled	½ cup	366
Lima beans, boiled	½ cup	365
Mashed potatoes, hash browns, potato salad, potatoes au gratin	½ cup	300
Mushrooms, cooked	½ cup	280
Pinto beans, boiled	½ cup	98
Potato, baked with skin	7 ounces	1,000
Potato, baked without skin	7 ounces	600
Split peas, cooked	½ cup	362
Spinach, boiled	½ cup	420
Sweet potato	1, 5 inches long	438
Tomato, red	1 medium	292
Tomatoes, canned	1 can	357
Tomato paste	1 can (6 ounces)	1,724
Tomato juice	1 cup (8 ounces)	556
White beans, cooked	½ cup	502
Other Foods		
Cream of tartar	1 teaspoon	495
Haddock, cod, flatfish, pollack, orange roughy, canned light tuna	3 ounces	200-300
Milk, 2%, 1%, and fat free skim	1 cup (8 ounces)	344-382
Milk, soy	1 cup (8 ounces)	287
Oat bran, raw	½ cup	266
Salmon	½ fillet	719
Yogurt, plain	1 cup	531

Lowering Caffeine in Your Diet

Your doctor recommends that you restrict foods, drinks, and medicines that have caffeine in them. Caffeine is a stimulant to the heart. It increases the heart rate, which increases the amount of oxygen the heart needs. In some cases, this results in your heart beating irregularly. Caffeine may also cause stomach upset and may bother stomach ulcers or gastritis.

To see if a product has caffeine, read the label carefully. Caffeine is colorless, odorless, and flavorless. A cola color does not always mean that the product has caffeine.

Avoid these foods and drinks with caffeine	Choose these caffeine free foods and drinks
<ul style="list-style-type: none"> • Regular coffees and teas • Energy drinks • Regular and diet cola soft drinks, such as: <ul style="list-style-type: none"> ▸ Coca-cola ▸ Pepsi ▸ Dr. Pepper ▸ RC Cola ▸ Mr. Pibb ▸ Mello Yello ▸ Mountain Dew ▸ Cherry Cola ▸ Big Red • Some gum, such as Wrigley’s ALERT and Run Gum • Some water additives such as MiO, some flavors of Crystal Light, and green tea packets for water • Some protein bars and protein drinks, more common in chocolate flavors • Clif Bars • Coffee-flavored ice cream • Vitamin water 	<ul style="list-style-type: none"> • Decaffeinated coffee and tea • Soft drinks labeled “caffeine free” • Other caffeine free soft drinks, such as: <ul style="list-style-type: none"> ▸ Sprite ▸ 7-Up ▸ Squirt ▸ Sierra Mist ▸ Ginger Ale ▸ Club Soda ▸ Seltzer ▸ Dr. Brown’s sodas ▸ Root beer ▸ Orange drinks • La Croix sparkling waters • Spindrift sprakling waters (avoid Half Tea and Half Lemonade flavor) • Sparkling ICE • Chicory root “coffee” • Gatorade or Powerade • Coconut water • Flavored mineral water • Carob powder instead of cocoa powder • MiO Original, MiO Vitamins, and MiO Electrolytes
<ul style="list-style-type: none"> • Chocolate is allowed only in limited amounts as listed on the next page. 	

Foods and drinks that have a moderate amount of caffeine (2 to 5 mg)

Do not eat more than 1 serving a day of these chocolate-containing foods and drinks:

- Baby Ruth (2.1 oz bar)
- Butterfinger (2.16 oz bar)
- After Eight Mints (2 mints)
- Chocolate coated raisins (10 each)
- Milk chocolate chips (½ oz)
- Peanut butter cup (1 each)
- Rolos (8 each)
- Chocolate ice cream (½ cup)
- Whatchamacallit (1.8 oz bar)
- Kit Kat (1.625 oz bar)
- Chocolate fudge topping (1 Tbsp)
- Chocolate syrup (2 Tbsp)
- Unsweetened cocoa powder (1 tsp)
- Powdered hot cocoa mix (1 oz packet)
- Jell-O Pudding pop (1 pop), avoid “Deluxe” pudding pops
- Jell-O Chocolate or Milk Chocolate pudding
- Pudding from instant mix (½ cup)

Many prescription and non-prescription drugs, such as cold medicines, pain relievers, water pills (diuretics), stimulants, and weight-control medicines have caffeine. Read labels and ask a pharmacist whether certain products have caffeine.

Avoid these non-prescription drugs that have caffeine

- Anacin
- Aqua-ban
- Bromoquinine
- Cope
- Coryban-D
- Dexatrim
- Dietac
- Dristan
- Excedrin
- Goody’s Headache Powder
- Midol
- Migraine medicines (BC Powder, Excedrin Migraine)
- Neo-synephrine
- No Doz
- Prolamine
- Sinarest
- Vanquish
- Vivarin

Talk to your doctor or pharmacist before using any herb or dietary supplement. Even though these products may come from natural sources, they may not be safe. Use caution and ask to be sure the product does not contain caffeine or other stimulants that may be harmful to your health. Also, check that these products will not interfere with the other medicines you take.

Alcohol and High Blood Pressure

Drinking too much alcohol can raise your blood pressure and increase your risk for heart disease.

- Women should have no more than 1 drink a day.
- Men should have no more than 2 drinks a day.

People with certain health conditions or who are taking certain medicines, like medicine for high blood pressure, should not drink alcohol as alcohol can cause some very serious side effects. **Talk to your health care provider about whether drinking alcohol is safe for you.**

Your body and alcohol

After you drink, alcohol goes from your stomach straight into your bloodstream. It then goes to your liver where it is slowly broken down. It takes about 2 hours for a 150 pound person to break down 1 drink. It takes 4 hours to break down 2 drinks. If you drink alcohol faster than your body breaks it down, the alcohol affects your brain, and you may feel or act drunk. If you drink 3 or more drinks each day, you may develop liver disease, cardiovascular disease, or other health problems.

Alcohol and weight management

Alcohol is very high in calories, so it is not a good choice if you are trying to control your weight. Alcohol has almost twice as many calories as carbohydrates and protein.

Alcohol and serving sizes

Alcoholic Beverage	Serving Size (1 drink)
Beer: various light, draft, and craft brewed	12 fluid ounces
Distilled spirits: vodka, rum, gin, whiskey (80 or 86 proof)	1½ fluid ounces
Liqueur, coffee (53 proof)	1 fluid ounce
Sake	1 fluid ounce
Wine: <ul style="list-style-type: none">• Dessert (sherry)• Dry, red, or white (10%)	3½ fluid ounces 5 fluid ounces

Better choices

When you drink alcohol, choose drinks that are lower in alcohol and sugar, such as:

- Distilled liquors, like gin, vodka, or whiskey with sugar free mixers (club soda, seltzer, diet tonic, diet soda, or water)
- Light beer
- Dry wines or wine spritzers (2 ounces of wine mixed with sparkling water, club soda, or diet soda)

Tips for safe alcohol use

- **Check with your provider or pharmacist to see if alcohol is allowed with your prescribed medicine.**
- Limit alcoholic drinks to 1 per day for women and 2 per day for men.
- Sip slowly to make the drink last.
- Never drink on an empty stomach.
- Choose distilled liquors with sugar free mixers, light beer, dry white wine, or wine spritzers.
- Avoid sweetened drinks.
- Do not drink and drive.

Exercise and High Blood Pressure

Getting started

If you have not been exercising, **talk with your health care provider before you start** to understand any special precautions or limitations. For your safety, follow suggested limits and stop exercising right away if you:

- Feel pain or pressure in your chest, neck, or jaw.
- Feel dizzy or light headed.
- Have irregular heartbeats.
- Become too tired.



Benefits of consistent exercise

- Makes the heart stronger so that it is able to pump more blood with less effort. This lowers blood pressure.
- May reduce the need for blood pressure medicines.
- Reduces cardiovascular risk.
- May help lower lipid levels (cholesterol and triglycerides).
- Helps you feel better and have more energy.
- Improves blood sugar levels and your body's ability to use its own insulin.

Your exercise plan

- **Begin slowly and increase the time and intensity of your exercise over time.**
- Choose exercises that you like. Both aerobic and resistance exercise reduce blood pressure.
 - Examples of aerobic exercise include walking, swimming, biking, running, and jogging.
 - Examples of resistance exercise include using resistance bands, lifting weights, using weight machines, or using your body for resistance.
- Check with your local recreation center or YMCA for available group exercise classes.
- Wear socks and shoes that fit well and support your feet.
- Dress in layers that can be removed as you warm up.

For best results

- **Get 150 minutes of moderate intensity, aerobic exercise each week.** Break this time into increments that work best for you, such as walking 30 minutes, 5 times a week.
 - **Start slowly.** For example, begin with 5 to 10 minutes, 2 to 3 times a week. Each week following, add 1 day, as well as 5 minutes per session until you reach 150 minutes total.
 - **Include a warm up and cool down period with every session** to prevent injury and allow your body to adjust to your activity. It is also a good idea to stretch after cooling down to help with flexibility and reduce risk of injury.
- **Add resistance exercise to your exercise plan 2 to 3 days per week** for more health benefits.
- Work up to a consistent, comfortable weekly schedule that works for you.

Exercise at the right pace

Do not push yourself too hard. If you are walking, you should be able to say hello to your neighbor or a person passing you on the sidewalk without feeling short of breath. Exercise at a pace that makes your body work, but does not cause you pain or exhaustion.

Part of your routine

You may see some weight loss when you first begin to exercise, but then it seems to stop. Do not be discouraged. Fat takes up more space than muscle. As you exercise and build up muscle, you will become more fit. You may not see many pounds come off, but you may notice that your clothes fit better and your blood pressure improves.

Finding time to work exercise into your daily routine can be hard. Stick with it, and you will see your effort rewarded. Choose something you feel good about doing. Find a friend who is willing to be your exercise buddy, so you can keep each other on track and motivated. The benefits of exercise are worth the effort. Your blood pressure and total body health will be better for it.

Relaxation Techniques to Reduce Stress

Chronic stress is one of many factors that can cause high blood pressure. Learn relaxation techniques to manage your stress and reduce your blood pressure. Try different techniques to find what works best for you. Practice the techniques often and your ability to relax will improve over time.



Listening to music

Listen to your favorite music by itself or play music while using another relaxation technique. Look for new music, which you find soothing and helps you feel calm and relaxed, such as classical music or nature sounds. Also try guided meditation music.

Breathing exercises

1. Find a quiet room.
2. Turn on music that you find relaxing.
3. Get into a relaxing position.
4. Close your eyes and think of an image in your mind that will help you to relax, such as a calm, peaceful setting or a place you have enjoyed visiting.
5. Breathe in deeply. Hold your breath and tense your muscles. Keep them tense for a second or 2.
6. Relax your muscles as you breathe out.
7. Starting with the muscles in your lower legs, work your way up your body to your head, tightening and relaxing each muscle group.

Guided imagery

Close your eyes and think of a time and place when you felt safe and comfortable. Imagine those surroundings, sights, smells, and sounds. Bring as much of that experience back to the here and now as possible. When you feel ready, take a deep breath and open your eyes.

Aromatherapy

Aromatherapy is the use of essential oils from plants as therapy to improve your well-being. Some oils, such as lavender, are thought to produce a calming effect. They can be inhaled or diluted and used on the skin.



Positive thinking

Thinking negative thoughts can cause stress and muscle tension. Create some positive statements to replace negative self-talk. Repeat these statements to yourself and use them to motivate you. Some examples include:

- I am doing the best that I can.
- I care for my well-being.
- I will try again.

Relaxation resources

- Guided Imagery Practices, go.osu.edu/guidedimagerypractices
- Mindfulness Practices, go.osu.edu/mindfulness
- Heart-Centered Practices, go.osu.edu/heartpractices
- Relaxation Response, go.osu.edu/relaxationresponse

How Does Sleep Affect Your Heart Health?

Getting good sleep is not just important for your energy levels – it is critical for your heart health, too. Sleep helps your body repair itself. Getting enough good sleep also helps you function normally during the day.



How much sleep do I need?

Most adults need at least 7 hours of sleep each night. But more than 1 in 3 American adults say they do not get the recommended amount of sleep. While this may be fine for a day or 2, not getting enough sleep over time can lead to serious health problems – and make certain health problems worse.

What health conditions are linked to a lack of sleep?

Adults who sleep less than 7 hours each night are more likely to say they have had health problems, including heart attack, asthma, and depression. Some of these health problems raise the risk for heart disease, heart attack, and stroke. These health problems include:

- **High blood pressure.** During normal sleep, your blood pressure goes down. Having sleep problems means your blood pressure stays higher for a longer period of time. High blood pressure is one of the leading risks for heart disease and stroke. About 75 million Americans – 1 in 3 adults – have high blood pressure.
- **Type 2 diabetes.** Diabetes is a disease that causes sugar to build up in your blood, a condition that can damage your blood vessels. Some studies show that getting enough good sleep may help people improve blood sugar control.
- **Obesity.** Lack of sleep can lead to unhealthy weight gain. This is especially true for children and adolescents, who need more sleep than adults. Not getting enough sleep may affect a part of the brain that controls hunger.

What sleep conditions can hurt my heart health?

Over time, sleep problems can hurt your heart health.

Sleep apnea happens when your airway gets blocked repeatedly during sleep, causing you to stop breathing for short amounts of time. Sleep apnea can be caused by certain health problems, such as obesity and heart failure.

Sleep apnea affects how much oxygen your body gets while you sleep and increases the risk for many health problems, including high blood pressure, heart attack, and stroke. It is more common among African Americans, Hispanics, and Native Americans than among whites.

Insomnia refers to trouble falling sleep, staying asleep, or both. As many as 1 in 2 adults have short term insomnia at some point, and 1 in 10 may have long-lasting insomnia. Insomnia is linked to high blood pressure and heart disease. Over time, poor sleep can also lead to unhealthy habits that can hurt your heart, including higher stress levels, less motivation to be physically active, and unhealthy food choices.

What can I do to get better sleep?

- Stick to a regular sleep schedule. Go to bed at the same time each night and get up at the same time each morning, including on the weekends.
- Get enough natural light, especially earlier in the day. Try going for a morning or lunchtime walk.
- Get enough physical activity during the day. Try not to exercise within a few hours of bedtime.
- Avoid artificial light, especially within a few hours of bedtime. Use a blue light filter on your computer or smartphone.
- Do not eat or drink within a few hours of bedtime, and avoid alcohol and foods high in fat or sugar.
- Keep your bedroom cool, dark, and quiet.

Work with your health care team to identify obstacles to good sleep, including other medical conditions.

Adapted from Centers for Disease Control and Prevention's "How Does Sleep Affect Your Heart Health?" at <https://www.cdc.gov/bloodpressure/sleep.htm>

Blood Pressure Log

Please use this log to record the blood pressure and heart rate (pulse) readings you take at home. Note the date and time of day you take them. Write the blood pressure with the systolic number on the left and the diastolic number on the right. For example, 120/80. Bring this log with you when you talk to your health care provider.

Date	Time	Blood Pressure Systolic / Diastolic	Heart Rate (Pulse)	Comments (please write down any symptoms you have here)
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		
		/		

My Blood Pressure Action Plan

 My **goal** blood pressure range is less than 130/80.

 My **caution** blood pressure is over 130/80, but less than 180/120.

 My **danger** blood pressure is over 180/120.

<p>I am doing well. 130/80 or less</p>	<p>Action</p> <ul style="list-style-type: none"> • Keep up the good work! • Follow my provider’s guidance for nutrition, physical activity, and taking medicines (if prescribed).
<p>My blood pressure is outside my goal range. Over 130/80, but less than 180/120</p>	<p>Action</p> <ul style="list-style-type: none"> • Caution needed. • Make changes to lower my blood pressure (eat healthy, exercise, lose weight, quit smoking, cut down on alcohol, and take medicines as prescribed). • Monitor my blood pressure closely. • Contact my provider to notify them of changes.
<p>RED ZONE: My blood pressure is too high. Over 180/120</p>	<p>Action:</p> <ul style="list-style-type: none"> • I am in trouble and need help. • Call my provider right away for instructions.

Call 911 if I am in the red zone and have any of the following problems:

- Trouble seeing or changes to my vision
- Sudden, severe headache
- Feeling confused
- Trouble speaking or understanding others
- Numbness or weakness in face, arms, or legs
- Sudden loss of balance or any dizziness
- Chest pain or tightness with or without shortness of breath, sweats, or nausea



THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER

wexnermedical.osu.edu