Programs and Services

Blood Pressure



We provide trusted, compassionate and expert health care to our community members to improve their health, independence and dignity.

Cornerstone VNA is an independent nonprofit organization. Our programs include:

HOME CARE

Advanced care by an interdisciplinary team for patients with complex medical issues

HOSPICE CARE

End-of-life care including physical, emotional and spiritual comfort

PALLIATIVE CARE

Specialized care and symptom management for people with chronic illnesses

LIFE CARE

Private duty program to help people "age in place"

COMMUNITY CARE

Community outreach, wellness clinics, educational programs, and caregiver support

To learn more about our health care programs call 800-691-1133 or visit our website, cornerstonevna.org.

Main Office:178 Farmington Road, Rochester, NH 03867





LEARN HOW TO MANAGE YOUR CONDITION

Disease Process and Risk Factors

The Role of Medication, Diet, and Exercise

Steps YOU Can Take to Improve Your Health

603-332-1133

Blood Pressure Can be Managed

This booklet was put together to help you understand your role ("self-care") in managing your blood pressure

Self-care includes:

- 1. Understanding signs of complications and personal action plan
- 2. Understanding your blood pressure: normal, low, high
- 3. Understanding your risk factors for cardiovascular disease
- 4. Understanding low blood pressure types, symptoms, and management
- 5. Understanding recommendations for home blood pressure and pulse monitoring
- 6. Understanding high blood pressure
- 7. Understanding your medications
- 8. Understanding a heart healthy diet
- 9. Importance recording your blood pressure
- 10. Setting personal goals
- 11. Knowing resources that can help you learn more about your Blood pressure

Personal Plan (continued) and Resources

My Personal Plan: (continued)

Things that would help me meet my goal:

My confidence in being able to meet my GOAL:

0 1 2 3 4 5 6 7 8 9 10

Not Very

Confident Confident

For More Information:

www.mayoclinic.org

www.cdc.org

www.heart.org

Www.bplog.com- online blood pressure log

CORNERSTONE VNA

178 Farmington Road, Rochester, NH 03867 cornerstonevna.org 603-332-1133

My Nurse is: _____

Take this booklet with you to your doctor appointment.

Managing Your Condition

My Personal Plan:
I would like to work on the following areas to manage my mood:
☐ Strive for a healthy BMI
☐ Taking my medications
☐ Eating a heart healthy diet
☐ Regular exercise 30 mins per day
☐ Limit alcohol
☐ Decrease dietary sodium to 2300mg or less per day
☐ Record my blood pressures
□ Other

My Personal Plan:

My GOAL for the next month is:

Possible problems in meeting my goal:

Zone Tool: Blood Pressure Management

G R E E N Z O N E	ALL CLEAR (GOAL) Normal blood pressure usually does NOT have any symptoms No headaches or lightheadedness or nose bleeds, etc. Blood pressure is within goal Systolic parameter (top number) range Diastolic parameter (bottom number) range	Doing Great! Your symptoms are under control Actions: Take medicines as ordered Check blood pressure, if able Keep all doctor appointments Exercise Follow health eating habits Keep exercising
Y E L L O W Z O N E	 WARNING If you have any of the following: Repeated blood pressures outside of your normal range low or high Ringing in the ears Headache Lightheadedness/dizziness when you change positions lying to sitting to standing Sudden loss of balance when you stand or start walking 	Act Today! You may need your medicines changed Actions: Stop vigorous exercise Change positions slowly. Stand for 1 minute before walking Call your home health nurse: Or call your doctor:
R E D Z O N E	 EMERGENCY Severe headache or nosebleed Heart racing and dizziness Severe anxiety Severe trouble breathing Sudden numbness or weakness of the face, arm, or leg Sudden confusion, trouble speaking, or understanding Sudden trouble seeing in one or both eyes Sudden trouble walking, dizziness, loss of balance or coordination Fall 	Act NOW! You need to be seen by a doctor right away! Actions: Call your doctor: Or call 911 or go to the Emergency Department.

Understanding Your Blood Pressure

What is Blood Pressure?

Is a measure of how hard the blood pushes against the walls of your arteries as it moves through your body. Your blood pressure consists of two numbers: systolic and diastolic.

Systolic Pressure – the top number indicates how hard the blood pushes when the heart is pumping.

<u>Diastolic Pressure</u> – the bottom number indicates how hard the blood pushes between heartbeats, when the heart is relaxed and filling with blood.

	Systolic		<u>Diastolic</u>
Low	Less than 90	AND/ OR	Less than 60
Normal	Less than 120	AND	Less than 80
Elevated	120-129	AND	Less than 80
Stage 1 Hyperten- sion (HTN)	130-139	OR	80-89
Stage 2 HTN	140 or higher	OR	90 or HIGHER
HTN Crisis (*consult your doctor immediately)	HIGHER than 180	OR	HIGHER THAN 120

Blood Pressure Log

DATE	AM	PM	DATE	AM	PM

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Blood Pressure Log

DATE	АМ	PM	DATE	AM	PM

Risk Factors for Cardiovascular Disease

<u>High blood pressure</u>. High blood pressure is a major risk factor for heart disease. It is a medical condition that happens when the pressure of the blood in your arteries and other blood vessels is too high. The high pressure, if not controlled, can affect your heart and other major organs of your body, including your kidneys and brain.

Unhealthy blood cholesterol levels. Cholesterol is a waxy, fat -like substance made by the liver or found in certain foods. Your liver makes enough for your body's needs, but we often get more cholesterol from the foods we eat.

<u>Diabetes mellitus</u>. Your body needs glucose (sugar) for energy. Insulin is a hormone made in the pancreas that helps move glucose from the food you eat to your body's cells for energy. If you have diabetes, your body doesn't make enough insulin, can't use its own insulin as well as it should, or both.

Diabetes causes sugar to build up in the blood. The risk of death from heart disease for adults with diabetes is higher than for adults who do not have diabetes.² Talk with your doctor about ways to prevent or manage diabetes and control other risk factors.

Obesity. Obesity is excess body fat. Obesity is linked to higher "bad" cholesterol and triglyceride levels and to lower "good" cholesterol levels. Obesity can lead to high blood pressure and diabetes as well as heart disease. Talk with your health care team about a plan to reduce your weight to a healthy level. Learn more about healthy weight.

Other Factors:

- Cigarette Smoking
- Physical Inactivity
- Age: >55 men; >65 women
- Family History of Premature Cardiovascular Disease

www.heart.org; www.cdc.gov

www.heart.org;

Understanding Low Blood Pressure

Chronic low blood pressure with no symptoms is almost never serious. But health problems can occur when blood pressure drops suddenly and the brain is deprived of an adequate blood supply. This can lead to dizziness or lightheadedness.

Types of hypotension

• Hypotension is divided into several different classifications according to when your blood pressure drops.

Orthostatic or Postural

- Orthostatic hypotension is the drop in blood pressure that occurs when you transition from sitting or lying down to standing.
- As the body adjusts to the position change there may be a brief period of dizziness. This is what some people refer to as "seeing stars" when they get up.

Postprandial

 Postprandial hypotension is a drop in blood pressure that occurs right after eating. It is a type of orthostatic hypotension.
 Older adults, especially those with Parkinson's disease, are more likely to develop postprandial hypotension.

Neurally mediated

 Neurally mediated hypotension happens after you stand for a long time. Children experience this form of hypotension more often than adults. Emotionally upsetting events can also cause this drop in blood pressure.

<u>Severe</u>

 Severe hypotension is related to shock. Shock occurs when your organs do not get the blood and oxygen they need to function properly. Severe hypotension can be life-threatening if not treated promptly.

Nutrition General Guidelines

Heart Healthy Diet 8 Steps:

- 1. Control your portion sizes
- 2. Eat more fruits and vegetables: fresh or frozen, low-sodium, canned fruit packed in juice or water
- 3. Select whole grains
- 4. Limit unhealthy fats and choose healthy fats: olive oil, canola oil, vegetable & nut oils, nuts, seeds, avocados
- 5. Choose low-fat protein sources: lean meat, poultry & fish, eggs, low fat dairy, legumes
- 6. Reduce the sodium in your food: Health adults have no more than 2,300mg per day (1tsp of salt), most adults ideally should have no more than 1500mg per day
- 7. Plan ahead: Create daily menus
- 8. Allow yourself an occasional treat



Medication Options High Blood Pressure

- ☐ Central agonists: Decrease the blood vessels ability to tense up or contract
 - Aldomet, catapres, Wytensin, Tenex
 - ⇒ Noted side effects: <u>Aldomet</u> may produce a greater drop in blood pressure when you're standing or walking, drowsiness or sluggishness or dryness of mouth
 - Noted side effects: <u>Catapres, Wytensin or Tenex</u> may produce severe dryness of the mouth, constipation or drowsiness. <u>DON'T</u> stop any of these drugs suddenly because your blood pressure may rise quickly to dangerously high levels
- □ Vasodilators: Blood vessel dilators, or vasodilators, can cause the muscle in the walls of the blood vessels (especially the arterioles) to relax, allowing the vessel to dilate (widen). This allows blood to flow through better.
 - ◆ Apresoline, Loniten
 - ⇒ <u>Special Instructions:</u> Check blood pressure prior to taking vasodilators. Hold if systolic is less than100 (contact your health care provider)
 - ⇒ Noted side effects: Hydralazine (Apresoline)* may cause headaches, swelling around the eyes, heart palpitations or aches and pains in the joints. Usually none of these symptoms are severe, and most will go away after a few weeks of treatment. This drug isn't usually used by itself.
 - ⇒ Minoxidil (Loniten)* is a potent drug that's usually used only in resistant cases of severe high blood pressure. It may cause fluid retention (marked weight gain) or excessive hair growth.

Understanding Low Blood Pressure

Other Underlying Causes:

- Prolonged bed rest
- Decrease in blood volume
- Certain medications: diuretics (water pills) and other drugs that treat hypertension, heart medications such as beta blockers; drugs for Parkinson's disease; tricyclic antidepressants; narcotics and alcohol. Other over-the counter drugs
- Heart problems: Abnormally low hear rate (bradycardia), problems with heart values, heart attack and heart failure
- Nutritional deficiencies: A lack of vitamins B-12 and folic acid can cause anemia which can lead to low blood pressure

Symptoms I have are:

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□ lightheadedness

☐ nausea

fainting

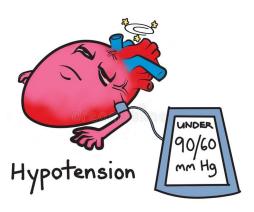
blurred or fading vision

□ cold/clammy/pale skin

□ lack of concentration

□ Fatigue

□ Other:



www.webmd.com; www.heart.org; www.mayoclinic.org; www.healthline.com

Low Blood Pressure Continued

What to do:

- Take your time when changing position, like getting up out of a chair or up off the floor
- · Hold onto something when you stand up
- Stay hydrated by drinking plenty of water
- Exercise gently before getting up, by moving feet up and down or marching in place after standing
- Consider modifying workouts to group together standing exercises, seated exercises and supine (laying down) exercises
- Allow sufficient time between exercises for careful movement from seated to standing or standing to laying down
- Work out in supine or seated positions, like swimming or recumbent bicycling
- Maintain a good salt intake, either through sodium supplements or drinks containing electrolytes as recommended by your Provider
- Stay hydrated
- In some cases, the legs may be fitted for elastic stockings that can help maintain blood pressure when you stand as prescribed by your health care provider

What makes Orthostatic hypotension worse?

- Getting overheated; in a warm room, after a hot bath or on a sunny day
- Illnesses such as colds or infections, especially if you need to rest in bed
- Anxiety and panic, especially if it changes your breathing pattern
- Medication some medication can worsen Postural Hypotension, in particular some Parkinson's medications

Medication Options High Blood Pressure

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Diruetics: help get rid of excess sodium (salt) and water ◆ Lasix, Bumex, Diuril, Hygroton, Aldactone, Midamar ⇒ Noted side effects: May decrease your body's supply of the mineral potassium
Beta-blockers: Reduce heart rate, the hearts workload and
output ◆ Atenolol, Cartrol, Lopressor, Toprol-XL, Inderal, Betapace
⇒ Noted side effects: slow heartbeat, cold hands and feet, insomnia
ACE inhibitors: helps relax the blood vessels and open up ◆ Lotensin, Vasotec, Accupril, Altace, Zestril or Prinivel ⇒ Noted side effects: skin rash, loss of taste, chronic dry cough
receptors so the angiotensin fails to constrict the blood vessel. This means blood vessels stay open and blood pressure is reduced. • Atacand, Avapro, Cozaar, Diovan
 ⇒ Noted side effects: may cause occasional dizziness Calcium channel blockers: Relaxes and opens up narrowed blood vessels, reduces heart rate and lowers blood pressure Norvasc or Lotrel, Vasocor, Cardizem, Verelan, Calan SR

- ⇒ Noted side effects: palpatations, swollen ankles, constipation dizziness
- ☐ Alpha blockers: relax the muscle tone of the vascular walls
 - Cardura, Minipress, Hytrin
 - ⇒ Noted side effects: fast heart rate, dizziness, <u>a drop in</u> blood pressure when you stand up

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High Blood Pressure

High blood pressure (also referred to as HBP, or hypertension) is when your blood pressure, the force of blood flowing through your blood vessels, is consistently too high

If you have high blood pressure, you are not alone

- Nearly half of American adults have high blood pressure
- The best way to know if you have high blood pressure is to have it checked

High Blood Pressure is a "silent killer"

- Most of the time there are no obvious symptoms.
- Certain physical traits and lifestyle choices can put you at a greater risk for high blood pressure.
- When left untreated, the damage that high blood pressure does to your circulatory system is a significant contributing factor to heart attack, stroke and other health threats.

Preventing and managing HBP

- Make healthy lifestyle choices are a great place to start
 - ◆ Strive for a healthy BMI <30
 - Treat high cholesterol
 - Stop smoking
 - Increase your physical activity
 - ♦ If you have Diabetes: Take Control
 - Eat a DASH diet (refer to nutrition page)
 - Decrease dietary sodium to 2300mg or less per day
 - Limit alcohol consumption
- With proper treatment and management, you can control your blood pressure to help you live a long and healthy life.



Low Blood Pressure (Continued)

These simple exercises stimulate your circulation. You can do them in bed, or sitting or standing and should do them before you change position or if you have been sitting or lying down for a while. These exercises can be used discreetly at the first sign of symptoms. Aim to do these for 5 to 10 minutes:

Move your feet up and down at the ankle
Rotate each ankle round and round
Do gentle 'marching' on the spot
If you get symptoms when you stop moving (e.g. after climbing up a flight of stairs), use these exercises after you have stopped.
Avoid standing still, cross and uncross your legs.
Crouch or squat down (as if to tie your shoe laces or look in your bag).
Bend forward and press your stomach, this is the position most people use when feeling faint.

<u>Make time</u> - leave enough time to do things safely. This will mean including brief rests during an activity.

<u>Plan ahead</u> - plan appointments and visits for your best times of day, usually afternoon and evening. Space out activities that cause postural hypotension. This will give your blood pressure time to recover.

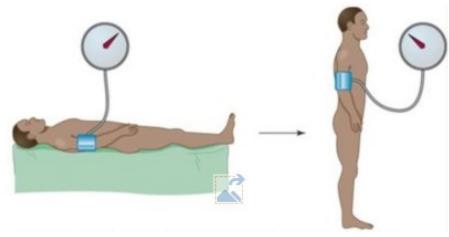
<u>Support stockings</u> – if recommended by your health care provider, need to be worn all day to be useful. If you have difficulty putting them on and taking them off they may not be practical

<u>Medications</u> – discuss your medications with your health care provider to see if these could be causing or contributing to your low blood pressures or orthostatic hypotension

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Talking Your Blood Pressure (Orthostatic Guidelines)

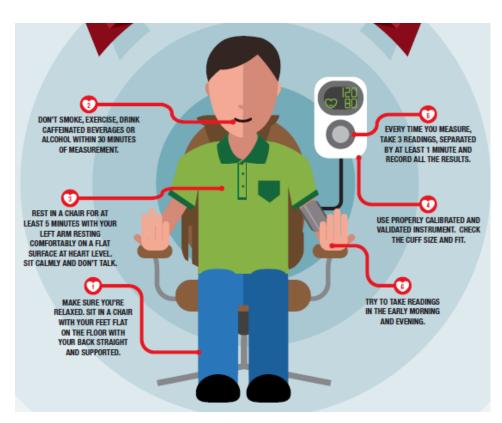
- Empty your bladder.
- □ Don't smoke, exercise, drink caffeinated beverages or alcohol within 30 mins of measurement
- ☐ Have the patient rest for 5 minutes in the lying position.
- ☐ Obtain your blood pressure and pulse
- ☐ Stand upright for a full minute.
 - If you are not able to stand upright, sit for a full minute.
- ☐ Check your blood pressure and pulse, using the same arm and same equipment as you did in the lying position.
- ☐ Wait 3 minutes and then check the blood pressure and pulse again (remain standing).
- ☐ If you become symptomatic at any point while standing, you need to sit or return back to a lying position.
- □ Record your readings
- ☐ Provider recommends you take orthostatic



readings: or if you are symptomatic

Taking Your Blood Pressure (General Guidelines)

- ☐ Don't smoke, exercise, drink caffeinated beverages or alcohol within 30 mins of measurement
- Rest in a chair for at least 5 minutes with your left arm resting comfortably on a flat surface at heart level, sit calmly and **DON'T** talk
- ☐ Make sure you're relaxed, Sit in a chair with your feet flat on the floor with your back straight and supported
- Every time you measure take 3 readings, separated by 1 minute and record all results
- ☐ Use properly calibrated and validated instruments, check the cuff size and fit
- ☐ Try to take readings early morning and evening



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