

Blood Pressure Toolkit

Introduction to Blood Pressure

What is Blood Pressure?

When your heart beats, it pumps blood around your body to give it the energy and oxygen it needs. As the blood moves, it pushes against the sides of the blood vessels. The strength of the pushing in your blood vessels is your blood pressure.

How is Blood Pressure Recorded?

Blood pressure is measured using two numbers. The first number, called systolic blood pressure, measures the pressure in your blood vessels when your heart beats. The second number, called diastolic blood pressure, measures the pressure in your blood vessels when your heart rests between beats. High blood pressure is most commonly called Hypertension.

The following chart shows the different blood pressure levels:

Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	Less than 120	OR	Less than 80
Prehypertension	120 – 139	OR	80 – 89
High Blood Pressure (Hypertension) Stage 1	140 – 159	OR	90 – 99
High Blood Pressure (Hypertension) Stage 2	160 or higher	OR	100 or higher
Hypertensive Crisis (Emergency care needed)	Higher than 180	OR	Higher than 110

What is High Blood Pressure and Why Does it Matter?

Blood pressure is important because the higher your blood pressure, the higher your risk of health problems in the future. If your blood pressure is high, it is putting extra strain on your arteries and your heart. Over time, this strain can cause the arteries to become thicker and less flexible, or to become weaker. If your arteries become thicker and less flexible, they will become narrower, making them more likely to become clogged up. If an artery becomes completely clogged up (known as a clot), this can lead to a heart attack, stroke, kidney disease or dementia.

The Prevalence of Heart Disease

Heart disease is the leading cause of death for people of most ethnicities in the United States, including African Americans, Hispanics, and Whites. In 2013, one of every three deaths in the U.S. was due to heart disease,

stroke and other cardiovascular diseases. According to the American Heart Association's *2016 Heart Disease and Stroke Statistics Update*, heart disease and stroke were the No. 1 and No. 2 killers worldwide.

Lifestyle Changes to Help Manage High Blood Pressure

The Importance of Eating a Healthy Diet

Eating a heart-healthy diet is important for managing your blood pressure and reducing your risk of heart attack, stroke and other health threats. If your doctor recommends that you lose weight, there's a simple rule to follow: move more, eat less, and make smarter food choices.

Aim to eat a diet that's rich in:

- Fruits
- Vegetables
- Whole-grains
- Low-fat dairy products
- Skinless poultry and fish
- Nuts and legumes

Limit:

- Saturated and trans fats
- Sodium
- Red meat (if you do eat red meat, compare labels and select the leanest cuts available)
- Sweets and sugar-sweetened beverages

A list of heart healthy recipes can be found online at <https://wellness.inhs.org/Recipes/>

Limit Sodium (Salt) Intake

Most of the sodium we consume is in the form of salt; the vast majority of sodium we consume is from processed and restaurant prepared foods. Your body needs a small amount of sodium to work properly, but too much sodium is bad for your health. Excess sodium can increase your blood pressure and your risk for a heart disease and stroke.

Tips to reduce sodium intake:

- Read food labels
- Select foods with no more than 400mg of sodium per serving, or foods with no more than 10 percent of daily value of sodium per serving.
- Avoid foods that have salt listed as one of the first 10 ingredients
- Eat no more than 1,500 mg of sodium per day. Most Americans eat more than twice that much each day.

Limiting Alcohol to Reduce Blood Pressure

If you drink, limit your alcohol consumption to no more than two drinks per day for men and no more than one drink per day for women. A drink is one 12 oz. beer, 4 oz. of wine, 1.5 oz. of 80-proof spirits or 1 oz. of 100-proof spirits.

Maintain a Healthy Weight

If you are overweight, even a small amount of weight loss can help to lower your blood pressure. A little weight loss can create a lot of health gains. Did you know you might experience health benefits from losing as few as 10 pounds? Weight loss can help manage or prevent high blood pressure in many overweight people (those with a body mass index (BMI) of 25 or greater).

INHS offers a yearlong program called Group Lifestyle Balance (GLB) that is designed to help participants reach their lifestyle goals by losing weight, increasing physical activity, teaching healthy eating habits, and keeping participants motivated. More information about the program and how to register can be found online at <https://wellness.inhs.org/Sub.aspx?id=1903>.

Exercise Regularly

Physical activity is great for everyone. There are many health benefits caused by increasing physical activity, among them are proven benefits to your heart and circulatory system. One of the best ways to manage high blood pressure is to get plenty of physical activity. For adults, the US Surgeon General recommends 2 hours and 30 minutes of moderate intensity exercise, like brisk walking or bicycling every week.

Smoking's Effect on Blood Pressure

Cigarette smoking raises your blood pressure and puts you at higher risk for heart attack and stroke. If you do not smoke, do not start. If you do smoke, quitting will lower your risk for heart disease.

INHS offers a free 4-week program designed to help individuals have long-term success in quitting tobacco. To learn more about our Tobacco Cessation class, please visit our website <https://wellness.inhs.org/Tobacco-Prevention-Cessation/>.

For more information about living a heart healthy lifestyle, watch the following webinar called “A Healthy Start to a Healthy Heart” presented by INHS’s Debbie Belknap, RN, CDE:

<https://attendeegotowebinar.com/register/1186387719946396673>

Setting Up a Blood Pressure Self-Monitoring Station

High blood pressure is generally a chronic condition and is often associated with few or no symptoms. When symptoms do occur, it is usually when blood pressure spikes suddenly and is extreme enough to be considered a medical emergency. One way for employers to ensure the health and safety of their employees is by setting up a self-monitoring blood pressure station. It's important to have an accurate measurement of your blood pressure. The following list is important for ensuring you get accurate blood pressure readings:

- You should not smoke, exercise, or consume caffeine in the 30 minutes before measuring your blood pressure.
- Read the instructions to ensure you know the correct placement of the cuff on your arm.
- You should be seated and at rest for at least 5 minutes before the measurement is taken. Keep your feet flat on the floor, and don't cross your legs. Make sure to put the cuff on your bare skin. Crossed legs or clothing will lead to inaccurate readings.
- Two or more blood pressure readings should be taken at least one minute apart and then averaged.
- Do not talk during the test.

For best results, a self-monitoring station should be in a quiet, isolated setting where employees can sit and rest before administering the blood pressure test. Creating a space that employees can reliably monitor their blood pressure allows them to be proactive towards their health.

For a how-to demonstration of measuring your own blood pressure at work or home, watch the following videos:

<https://www.youtube.com/watch?v=Uq7R7JR5d38>

<http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/multimedia/how-to-measure-blood-pressure/vid-20084749>

Printable blood pressure resources from the Washington State Department of Health can be found at the following links:

http://here.doh.wa.gov/materials/blood-pressure-tracker/13_BPtracker_E15L.pdf

http://here.doh.wa.gov/materials/how-to-check-your-blood-pressure/13_BloodPressHm_E15L.pdf

http://here.doh.wa.gov/materials/what-is-blood-pressure/13_BPbro_E16L.pdf

http://here.doh.wa.gov/materials/know-your-numbers/13_BPnosPst2_E15L.pdf

http://here.doh.wa.gov/materials/ckgBP-before-you-begin/13_BPbybPst2_E15L.pdf

Equipment for Your Worksite

The below table provides information about the costs associated with setting up various brands of blood pressure self-monitoring devices. The organizations that are part of the 1422 grant will receive one Omiron self-monitoring device with one adult sized cuff at no cost.

Self-Monitoring Equipment	Brand	Cost
Automated cuffs at your location	Omiron	Purchase: \$90-\$119 with adult sized cuff. Additional cuffs of various sizes \$10-\$25
Fixed monitoring stations at your location	Healthbot	Lease: \$139-\$219/month Purchase: \$7950 with 1 year warranty, optional service contract is \$49/mo.
	PharmaSmart	Lease: \$159-\$219/month Purchase: \$6495 (no internet connection)- \$7295 (with internet connection) with 1 year warranty

Self-Monitoring Stations in the Community

The below table provides information about blood pressure testing and self-monitoring stations that are available to all members of the community at pharmacies throughout Spokane.

Location Name	Address	Offerings	Hours of Operation	Contact
South Hill				
Walgreen's Pharmacy	2830 S Grand Blvd Spokane, WA 99203	Blood pressure testing	Mon-Fri 8am-10pm, Sat 9am-6pm, Sun 10am-6pm	509-455-3736
Alberstons Pharmacy	3010 E 57th Ave Spokane, WA 99223	Self-monitoring blood pressure machine	Mon-Sun 24 hours	509-443-6403
Rite Aid Pharmacy	4514 Regal St Spokane, WA 99223	Self-monitoring blood pressure machine	Mon-Fri 8am-8pm, Sat 9am-6pm, Sun 10am-6pm	509-448-9063
Safeway Pharmacy	E 2509 29th Ave Spokane, WA 99223	Self-monitoring blood pressure machine	Mon-Fri 9am-8pm, Sat 9am-6pm, Sun 10am-6pm	509-532-9182
Downtown Spokane				
Walgreens Pharmacy at Rockwood Clinic	400 E 5th Ave Spokane, WA 99202	Blood pressure testing	Mon-Fri 8am-6pm, Sat 9am-1pm, Sun Closed	509-838-0175
Rite Aid Pharmacy	112 North Howard, Ste 115 Spokane, WA 99201	Self-monitoring blood pressure machine	Mon-Fri 8am-8pm, Sat 9am-6pm, Sun 10am-6pm	509-838-1851
Rosauers Pharmacy	907 W 14th Ave Spokane, WA 99204	Self-monitoring blood pressure machine	Mon-Fri 9am-7pm, Sat 9am-6pm, Sun 10am-5pm	509-624-2371
Spokane Valley				
Walgreen's Pharmacy	12312 E Sprague Ave Spokane Valley, WA 99216	Blood pressure testing	Open 24hrs Mon-Sun	509-921-0659
Rosauers Pharmacy	10618 East Sprague Ave Spokane, WA 99206	Self-monitoring blood pressure machine	Mon-Sat 9am-7pm, Sun 10am-6pm	509-924-5560
Alberstons Pharmacy	13606 East 32nd Spokane WA, 99206	Self-monitoring blood pressure machine	Mon-Fri 9am-9pm, Sat 9am-7pm, Sun 10am-6pm	509-892-2112
NorthTown				
Safeway Pharmacy	2507 W Wellesley Ave Spokane, WA 99205	Self-monitoring blood pressure machine	Mon-Fri 9am-8pm, Sat 9am-6pm, Sun 10am-6pm	509-325-4396
Rite Aid Pharmacy	2215A W Wellesley Ave Spokane, WA 99205	Self-monitoring blood pressure machine	Mon-Fri 8am-9pm, Sat-Sun 9am-7pm	509-328-7887

Sources

American Heart Association. (2014). *Understanding and Managing High Blood Pressure*. Retrieved from https://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_461840.pdf

American Heart Association. (2015). *New Statistics Show One of Every Three U.S. Deaths Caused by Cardiovascular Disease*. Retrieved from <http://newsroom.heart.org/news/new-statistics-show-one-of-every-three-u-s-deaths-caused-by-cardiovascular-disease>

Center For Disease Control and Prevention. (2014). High Blood Pressure. Retrieved from <https://www.cdc.gov/bloodpressure/measure.htm>

Blood Pressure UK. (2008). *Why is Blood Pressure Important?* Retrieved from <http://www.bloodpressureuk.org/microsites/u40/Home/facts/Whyitmatters>