



# HIGH BLOOD PRESSURE RESOURCE TOOLKIT

Brought to you by the Heart Disease and Stroke Taskforce  
Through the Chronic Disease Prevention and Health Promotion Section of the Nevada Division of Public and Behavioral Health



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## High Blood Pressure Toolkit: Prevention, Control, and Improving the Patient's Health

The Nevada Heart Disease and Stroke Taskforce, comprised of clinicians, providers, organization leadership, public health professionals, and local health authorities has developed a high blood pressure resource toolkit.

As a health care provider you are well positioned to advise and educate your patients about high blood pressure management and control. We invite you and your staff to incorporate the materials included in this toolkit when caring for patients who are at-risk or who have hypertension, heart disease and/or suffered a stroke.

The Taskforce researched, reviewed, and identified key material to include in the toolkit. These materials were chosen based on quality of information, effectiveness, and evidence-based best practices. The information included within this toolkit aims to meet the needs of providers and clinicians to supply quality reference materials for patients. All materials are copyrighted by the source organizations and are reprinted with permission.

Please follow the links below to download the materials for providers, staff, and patients. If you wish to add a resource or request additional materials, please contact the Heart Disease and Stroke Prevention Coordinator, [Troy Lovick, \(775\) 546-5840, TLovick@health.nv.gov](mailto:TLovick@health.nv.gov).

# Blood Pressure Categories



BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

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## Overview of Toolkit Resources


Resource	Overview
<b>Provider/Clinician Resources</b>	
<a href="#">Steps for Accurate BP Measurement</a>	Follow these steps to measure blood pressure accurately.
<a href="#">Taking Blood Pressure Manually</a>	A brief explanation of the importance of obtaining blood pressures accurately and the different category levels.
<a href="#">2017 Blood Pressure Guideline Highlights</a>	Guideline for prevention, detection, evaluation and management of high blood pressure in adults.
<a href="#">Diagnosing and Managing Hypertension in Adults</a>	A clinical implementation resource for hypertension protocols and algorithm with recommendations for treatment and follow-up.
<a href="#">Community Health Worker (CHW) Resource</a>	A resource guide offering examples of CHW incorporation into hypertension efforts.
<a href="#">Discussion Guide for Pharmacists</a>	Pharmacists can help improve efforts for hypertension control with the help of this discussion guide.
<a href="#">Pharmacist Drug Adherence Work-Up</a>	This tool will help pharmacists start important conversations with their patients regarding medication adherence and hypertension.
<a href="#">Hypertension Clinician Guide</a>	This comprehensive resource will help providers and clinicians review and implement a comprehensive treatment plan for hypertension patients.
<a href="#">Improving Medication Adherence</a>	A tip sheet for health care professionals on how to improve medication adherence among patients with hypertension.
<a href="#">Self-Measured Blood Pressure for Clinicians</a>	Self-monitoring is an important tool for improving hypertension. This guide helps clinicians and providers prepare for important conversations with patients.
<a href="#">Supporting Patients With High Blood Pressure Visit Checklist</a>	A great reference tool to navigate hypertension patient visits.
<a href="#">Patient Empowerment Tip Sheet</a> <a href="#">English</a> <a href="#">Spanish</a>	Everyone knows patient participation is the key to success. This tip sheet will assist clinicians with empowering patients when it matters most.
<a href="#">Loved One Empowerment Tip Sheet</a> <a href="#">English</a> <a href="#">Spanish</a>	Family support can be an integral key to success with patients. Use this tip sheet to inspire the families of patients to be involved.
<b>Patient Handouts</b>	
<a href="#">My Blood Pressure Journal</a>	This journal will help patients understand the importance of blood pressure control, medication maintenance, and living healthy lifestyles.
<a href="#">Know Your Blood Pressure</a>	Patient tips on reaching blood pressure goals
<a href="#">Blood Pressure Wallet Card</a>	Help your patients remember to record their blood pressure readings with this tracking log.
<a href="#">Medication Record</a>	This medication record will help your patients organize and remember their medications at each visit.
<a href="#">Blood Pressure Fact Sheet</a>	A simple, patient-friendly fact sheet to explain the importance of blood pressure control. (English and Spanish)





## Stay Connected

Learn more about Million Hearts® and how you can join this national effort and take action to prevent 1 million heart attacks and strokes by 2022.

 Visit [millionhearts.hhs.gov](http://millionhearts.hhs.gov).

 Connect with **Million Hearts®** on Facebook.

 Follow **@MillionHeartsUS** on Twitter.

 Sign up for the Million Hearts® e-Update at [millionhearts.hhs.gov/news-media](http://millionhearts.hhs.gov/news-media).

## What You Can Do

The only way we—as a nation—will meet the Million Hearts® goals is through the collective and focused action of a diverse range of partners.

As a Million Hearts® partner, determine where your individual or organizational mission aligns with the Million Hearts® priorities and explore the evidence-based strategies most suited to your talents, interests, and resources. Check out the **Million Hearts® 2022 framework** and commit with us to carry out the priority actions needed to prevent 1 million heart attacks and strokes.

## Million Hearts® 2022 Priorities

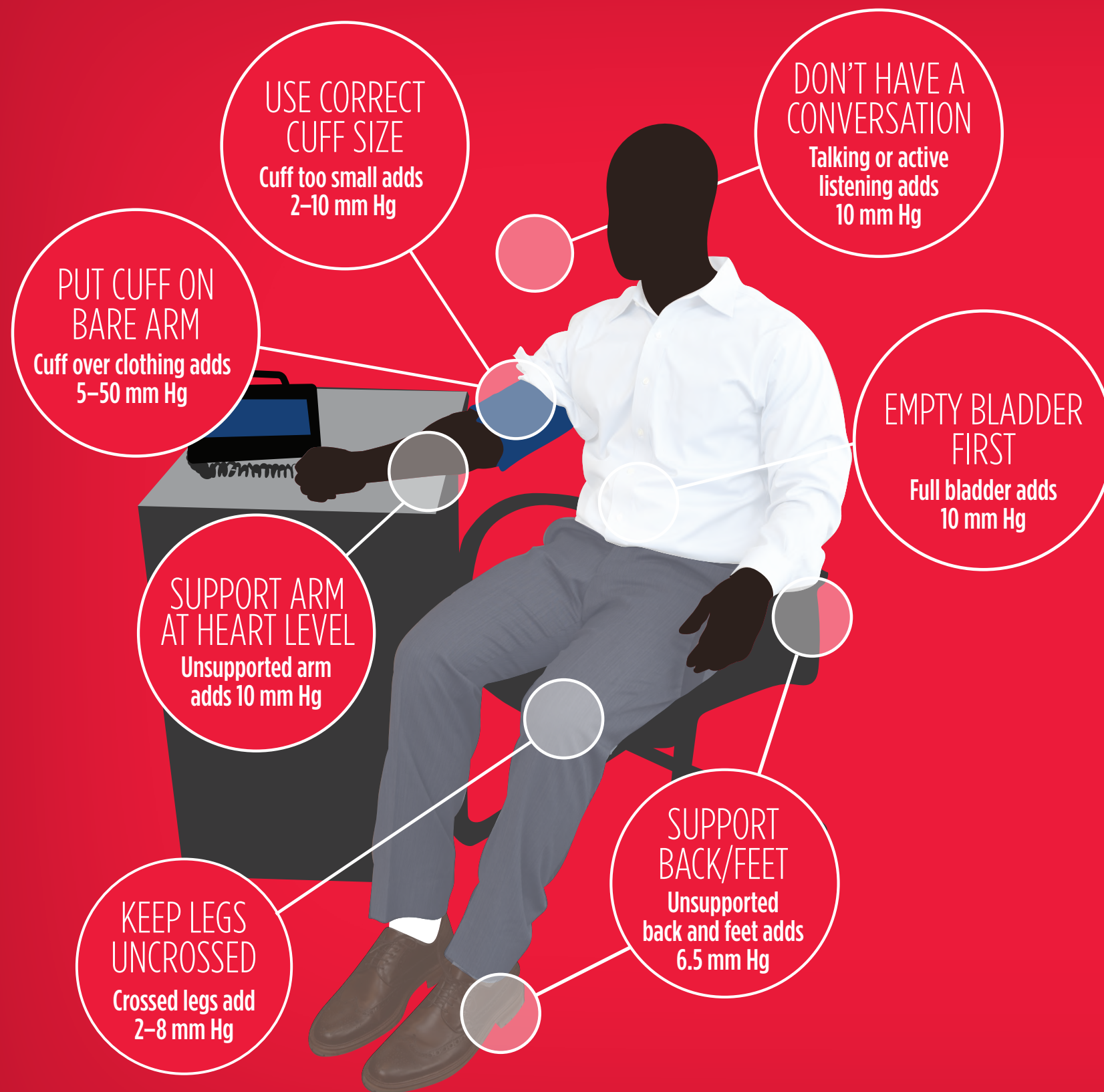
Million Hearts® has set the following priorities to meet the aim of preventing 1 million heart attacks and strokes by 2022:

- ▶ **Keeping people healthy** with public health efforts that promote healthier levels of sodium consumption, increased physical activity, and decreased tobacco use.
- ▶ **Optimizing care** by using teams, health information technology, and evidence-based processes to improve the ABCS (Aspirin when appropriate, Blood pressure control, Cholesterol management, and Smoking cessation), increase use of cardiac rehab, and enhance heart-healthy behaviors.
- ▶ **Improving outcomes for priority populations** selected based on data showing a significant cardiovascular health disparity, evidence of effective interventions, and partners ready to act. Populations include Blacks/African Americans, 35- to 64-year-olds, people who have had a heart attack or stroke, and people with mental illness or substance use disorders.



# Provider/Clinician Resources





# 7 SIMPLE TIPS TO GET AN ACCURATE BLOOD PRESSURE READING

The common positioning errors can result in inaccurate blood pressure measurement. Figures shown are estimates of how improper positioning can potentially impact blood pressure readings.

Sources:

1. Pickering, et al. Recommendations for Blood Pressure Measurement in Humans and Experimental Animals Part 1: Blood Pressure Measurement in Humans. *Circulation*. 2005;111: 697-716.
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This 7 simple tips to get an accurate blood pressure reading was adapted with permission of the American Medical Association and The Johns Hopkins University. The original copyrighted content can be found at <https://www.ama-assn.org/ama-johns-hopkins-blood-pressure-resources>.

7 simple tips to get an accurate blood pressure reading Updated  
December 2016  
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## Taking Blood Pressure Manually

If you are using a manual device use these quick tips to help you take an accurate and consistent blood pressure reading.

- 1 Check the condition of the device and the cuff size to ensure the reading is accurate.** A small hole or crack in any part of the device e.g., rubber tubing, bulb, valves, and cuff can lead to inaccurate results. A cuff that is too small or too big may produce an incorrect high blood pressure reading.
- 2 It's important the patient feels comfortable and relaxed.** Reassure the patient that there are no risks or complications associated with this screening.
- 3 Have the patient relax and sit with their arm slightly bent on the same level as their heart and resting comfortably on a table or other flat surface.**
- 4 Place the inflatable blood pressure cuff securely on the upper arm (approximately one inch above the bend of the elbow).** Make sure the cuff is touching the skin. You may have to ask your patient roll up their sleeve, or remove their arm from the sleeve.
- 5 Close the pressure valve on the rubber inflating bulb, and pump the bulb rapidly to inflate the cuff.** The cuff should be inflated so that the dial reads about 30 mm Hg higher than your patient's at-rest systolic pressure. (TIP: If at-rest pressure is unknown, inflate the cuff to 210 mm Hg or until the pulse at the wrist disappears).
- 6 If using a stethoscope, place the earpieces in your ears and the bell of the stethoscope over the artery, just below the cuff.** If the cuff has a built-in stethoscope bell, be sure to position the cuff so the bell is over the artery. The accuracy of a blood pressure recording depends on the correct positioning of the stethoscope over the artery, and making sure the stethoscope bell does not rub on the cuff or the patient's clothing.
- 7 Now slowly release the pressure by twisting or pressing open the pressure valve, located on the bulb.** Some blood pressure devices can automatically control the rate at which the pressure falls, but generally the patient's pressure should decrease about 2 to 3 mm Hg per second. Listen through the stethoscope and note on the dial when you *first start to hear a pulsing or tapping sound*—this is the *systolic blood pressure*. If you have trouble hearing the start of the pulse, you can find the patient's systolic blood pressure by asking your patient to tell you when they can start to feel the pulse in their wrist and noting the level on the dial.
- 8 Continue letting the air out slowly.** The pulsing or tapping sounds will become dulled and finally disappear. Note on the dial *when the sounds completely stop*—this is the *diastolic blood pressure*. Finally, release the remaining air to relieve all pressure on your patient's arm.
- 9 Suggest the patient write down their numbers along with the date and time.** They can use the *Team Up. Pressure Down.* journal to keep track. Remind the patient to take their blood pressure regularly to ensure their medications are working appropriately.

## What the Readings Mean

Use this chart to help interpret blood pressure readings and provide recommendations to your patient. Remember, more than one reading is needed to accurately measure blood pressure and offer the greatest benefits.

STAGE 2 HYPERTENSION		RECOMMENDATIONS
Systolic blood pressure	Diastolic blood pressure	Patient has hypertension and should seek medical care as soon as possible. If patient is not currently under the care of a physician, refer him/her to a primary care provider, and offer to make the call for them. If patient is currently taking hypertension medication(s), determine if he/she is adherent to the prescribed drug regimen. If adherent, make therapeutic suggestions to the patient and his/her provider to improve control. If not, determine existing adherence barriers and suggest ways for the patient to improve their compliance.
> (or equal to) 160 mmHg	OR > (or equal to) 100 mmHg	
STAGE 1 HYPERTENSION		RECOMMENDATIONS
Systolic blood pressure	Diastolic blood pressure	Patient has hypertension and should seek medical care. If patient is not currently under the care of a physician, refer him/her to a primary care provider. If patient is currently taking hypertension medication(s), determine if he/she is adherent to the prescribed drug regimen. If adherent, make therapeutic suggestions to the patient and his/her provider to improve control. If not, determine existing adherence barriers and suggest ways for the patient to improve compliance.
140-159 mmHg	OR 90-99 mmHg	
PREHYPERTENSION		RECOMMENDATIONS
Systolic blood pressure	Diastolic blood pressure	Patient has an increased risk of future hypertension. Suggest that the patient make lifestyle modifications and regularly monitor blood pressure.
120-139 mmHg	OR 80-89 mmHg	
NORMAL		RECOMMENDATIONS
Systolic blood pressure	Diastolic blood pressure	Encourage healthy behaviors and lifestyle modifications to keep blood pressure in normal range.
< 120 mmHg	AND <80 mmHg	



# Highlights

FROM THE 2017 GUIDELINE FOR THE PREVENTION, DETECTION, EVALUATION AND MANAGEMENT OF HIGH BLOOD PRESSURE IN ADULTS

A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

**New blood pressure targets and treatment recommendations:** For years, hypertension was classified as a blood pressure (BP) reading of 140/90 mm Hg or higher, but the updated guideline classifies hypertension as a BP reading of 130/80 mm Hg or higher. The updated guideline also provides new treatment recommendations, which include lifestyle changes as well as BP-lowering medications, as shown in Table 1.

**TABLE 1. Classification of BP**

BP Category	Systolic BP		Diastolic BP	Treatment or Follow-up
Normal	<120 mm Hg	and	<80 mm Hg	Evaluate yearly; encourage healthy lifestyle changes to maintain normal BP
Elevated	120-129 mm Hg	and	<80 mm Hg	Recommend healthy lifestyle changes and reassess in 3-6 months
Hypertension: stage 1	130-139 mm Hg	or	80-89 mm Hg	Assess the 10-year risk for heart disease and stroke using the <a href="#">atherosclerotic cardiovascular disease (ASCVD) risk calculator</a> <ul style="list-style-type: none"> <li>If risk is less than 10%, start with healthy lifestyle recommendations and reassess in 3-6 months</li> <li>If risk is greater than 10% or the patient has known clinical cardiovascular disease (CVD), diabetes mellitus, or chronic kidney disease, recommend lifestyle changes and BP-lowering medication (1 medication); reassess in 1 month for effectiveness of medication therapy <ul style="list-style-type: none"> <li>If goal is met after 1 month, reassess in 3-6 months</li> <li>If goal is not met after 1 month, consider different medication or titration</li> <li>Continue monthly follow-up until control is achieved</li> </ul> </li> </ul>
Hypertension: stage 2	≥140 mm Hg	or	≥90 mm Hg	Recommend healthy lifestyle changes and BP-lowering medication (2 medications of different classes); reassess in 1 month for effectiveness <ul style="list-style-type: none"> <li>If goal is met after 1 month, reassess in 3-6 months</li> <li>If goal is not met after 1 month, consider different medications or titration</li> <li>Continue monthly follow-up until control is achieved</li> </ul>

**TABLE 2. Hypertensive Crises: Emergencies and Urgencies (See Section 11.2 of 2017 Hypertension Guideline)**

Hypertensive Crises	Systolic BP		Diastolic BP	Treatment or Follow-up
Hypertensive urgency	>180 mm Hg	and/or	>120 mm Hg	Many of these patients are noncompliant with antihypertensive therapy and do not have clinical or laboratory evidence of new or worsening target organ damage; reinstitute or intensify antihypertensive drug therapy, and treat anxiety as applicable
Hypertensive emergency	>180 mm Hg + target organ damage	and/or	>120 mm Hg + target organ damage	Admit patient to an intensive care unit for continuous monitoring of BP and parenteral administration of an appropriate agent in those with new/progressive or worsening target organ damage (see Tables 19 and 20 in the 2017 Hypertension Guideline)

# The new Hypertension Guideline changes the definition of hypertension, which is now considered to be any systolic BP measurement of 130 mm Hg or higher—or any diastolic BP measurement of 80 mm Hg or higher.

## Pharmacologic recommendations:

The updated guideline recommends BP-lowering medication for those with stage 1 hypertension with clinical CVD or a 10-year risk of ASCVD 10% or greater, as well as for those with stage 2 hypertension. For stage 2, the recommendation is 2 BP-lowering medications in addition to healthy lifestyle changes, which is a more aggressive treatment standard—previous guidelines recommended starting patients on only 1 BP-lowering medication.

The guideline also updates the recommendations for specific populations. Because black adults are more likely to have hypertension than other groups, 2 or more antihypertensive medications are recommended to achieve a target of less than 130/80 mm Hg in this group, and thiazide-type diuretics and/or calcium channel blockers are more effective in lowering BP alone or in multidrug regimens. Morbidity and mortality attributed to hypertension are more common in black and Hispanic adults compared with white adults.

For adults starting a new or adjusted drug regimen to treat hypertension, follow up with them each month to determine how well they are following and responding to their prescribed treatment until their BP is under control.<sup>2-4</sup> For a full list of medications, see Table 18 in the 2017 Hypertension Guideline.

**Emphasis on cardiovascular disease:** The updated guideline provides recommendations for patients with clinical CVD and makes new recommendations for using the

### ASCVD risk calculator:

- Use BP-lowering medication for **primary** prevention of CVD in adults with no history of CVD **and** an estimated 10-year ASCVD risk less than 10% **and** a systolic BP of 140 mm Hg or greater **or** a diastolic BP of 90 mm Hg or greater.<sup>5-9</sup>
- Use BP-lowering medications for **secondary** prevention of recurrent CVD events in patients with clinical CVD **and** an average systolic BP of 130 mm Hg or greater **or** a diastolic BP of 80 mm Hg or greater **and** for **primary** prevention in adults with an estimated 10-year risk of ASCVD of 10% or greater with an average systolic BP of 130 mm Hg or greater **or** average diastolic BP of 80 mm Hg or greater.<sup>5,10-17</sup>

**No prehypertension:** The updated guideline eliminates the term *prehypertension* and instead uses the term *elevated BP* for a systolic BP of 120 to 129 mm Hg and a diastolic BP of less than 80 mm Hg.

**More hypertension patients:** Because the new definition of hypertension is lower (130/80 mm Hg), more people will be classified as having hypertension. However, most of these new patients can prevent hypertension-related health problems through lifestyle changes alone.

## Hypertensive urgency vs hypertensive emergency:

Hypertensive urgencies are associated with severe BP elevation in otherwise stable patients without acute or impending change in target organ damage or dysfunction. Hypertensive emergencies are severe elevations in BP associated with evidence of new or worsening target organ damage.

**Focus on accurate measurements:** To ensure accurate measurements, make sure the instrument you are using is properly calibrated. The updated guideline also stresses the basic processes for accurately measuring BP, including some simple yet critical actions before and during measurements. For accurate in-office measurements, do the following:

- Have the patient avoid smoking, caffeine, or exercise within 30 minutes before measurements; empty his or her bladder; sit quietly for at least 5 minutes before measurements; and remain still during measurements.
- Support the limb used to measure BP, ensuring that the BP cuff is at heart level and using the correct cuff size; don't take the measurement over clothes.
- Measure in both arms and use the higher reading; an average of 2 to 3 measurements taken on 2 to 3 separate occasions will minimize error and provide a more accurate estimate.

For more information about accurate measurements, see Tables 8 and 9 in the 2017 Hypertension Guideline.

**Focus on self-monitoring:** Office BPs are often higher than ambulatory or home BPs, so the updated guideline emphasizes having patients monitor their own BP for hypertension diagnosis, treatment, and management. Patients should follow these steps:

- Use the same validated instrument at the same time when measuring at home to more accurately compare results.
- Position themselves correctly, with the bottom of the cuff directly above the bend of the elbow.
- Optimally, take at least 2 readings 1 minute apart each morning before medication and each evening before supper. Ideally, obtain weekly readings 2 weeks after a treatment change and the week before a clinic visit.

- Record all readings accurately; use a monitor with built-in memory and bring it to all clinic appointments.

For clinical decision-making, base the patient's BP on an average from readings on 2 or more occasions.

**Treatment recommendations:** The updated guideline presents new treatment recommendations, which include lifestyle changes as well as BP-lowering medications. These lifestyle changes can reduce systolic BP by approximately 4 to 11 mm Hg for patients with hypertension, with the biggest impacts being changes to diet and exercise.

- In addition to promoting the DASH diet, which is rich in fruits, vegetables, whole grains, and low-fat dairy products, the updated guideline recommends reducing sodium intake and increasing potassium intake to reduce BP. However, some patients may be harmed by excess potassium, such as those with kidney disease or who take certain medicines. See Table 15 in the 2017 Hypertension Guideline for more information.
- Each patient's ideal body weight is the best goal, but as a rule, expect about a 1 mm Hg BP reduction for every 1 kg reduction in body weight.
- Recommendations for physical activity include 90 to 150 minutes of aerobic and/or dynamic resistance exercise per week and/or 3 sessions per week of isometric resistance exercises.
- For patients who drink alcohol, aim for reducing their intake to 2 or fewer drinks daily for men and no more than 1 drink daily for women.

**New targets for comorbidities:** For patients with comorbidities, the updated guideline generally recommends prescribing BP-lowering medications in patients with clinical CVD and new stage 1 or stage 2 hypertension to target a BP of less than 130/80 mm Hg (this was previously less than 140/90 mm Hg). The guideline recommends different follow-up intervals based on the stage of hypertension, type of medication, level of BP control, and presence of target organ damage.

To download the full version of the 2017 Hypertension Guideline, please visit <http://professional.heart.org/hypertension>.



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Association.

In setting a new threshold for high blood pressure (HBP), the 2017 Hypertension Clinical Practice Guideline<sup>1</sup> leads to a substantial increase in the prevalence of hypertension but only a slight increase in the number of adults for whom antihypertensive medication will be recommended.<sup>2</sup>

A team-based approach to care is recommended. Such an approach has been associated with lower systolic and diastolic measurements as well as an increased proportion of people with controlled BP.<sup>8</sup> Teams consisting of physicians, nurses, physician assistants and pharmacists can have the greatest impact on improving the monitoring and management of blood pressure.<sup>9,10</sup>

## Guideline Highlights

 **Normal BP:**  
**<120/80 mm Hg**

 **Managing elevated BP:**  
**120-129/<80 mm Hg**

### Recommendations

- Use the ASCVD risk calculator to assess 10-year risk for heart disease and stroke in patients with stage 1 hypertension<sup>3</sup>
- Review standards for accurate measurement of BP, including appropriate cuff size<sup>4,5</sup>
- Encourage your patient to self-monitor BP<sup>6,7</sup>

Find more tools to help you integrate the guidelines into practice at [heart.org/bptools](http://heart.org/bptools).

## REFERENCES

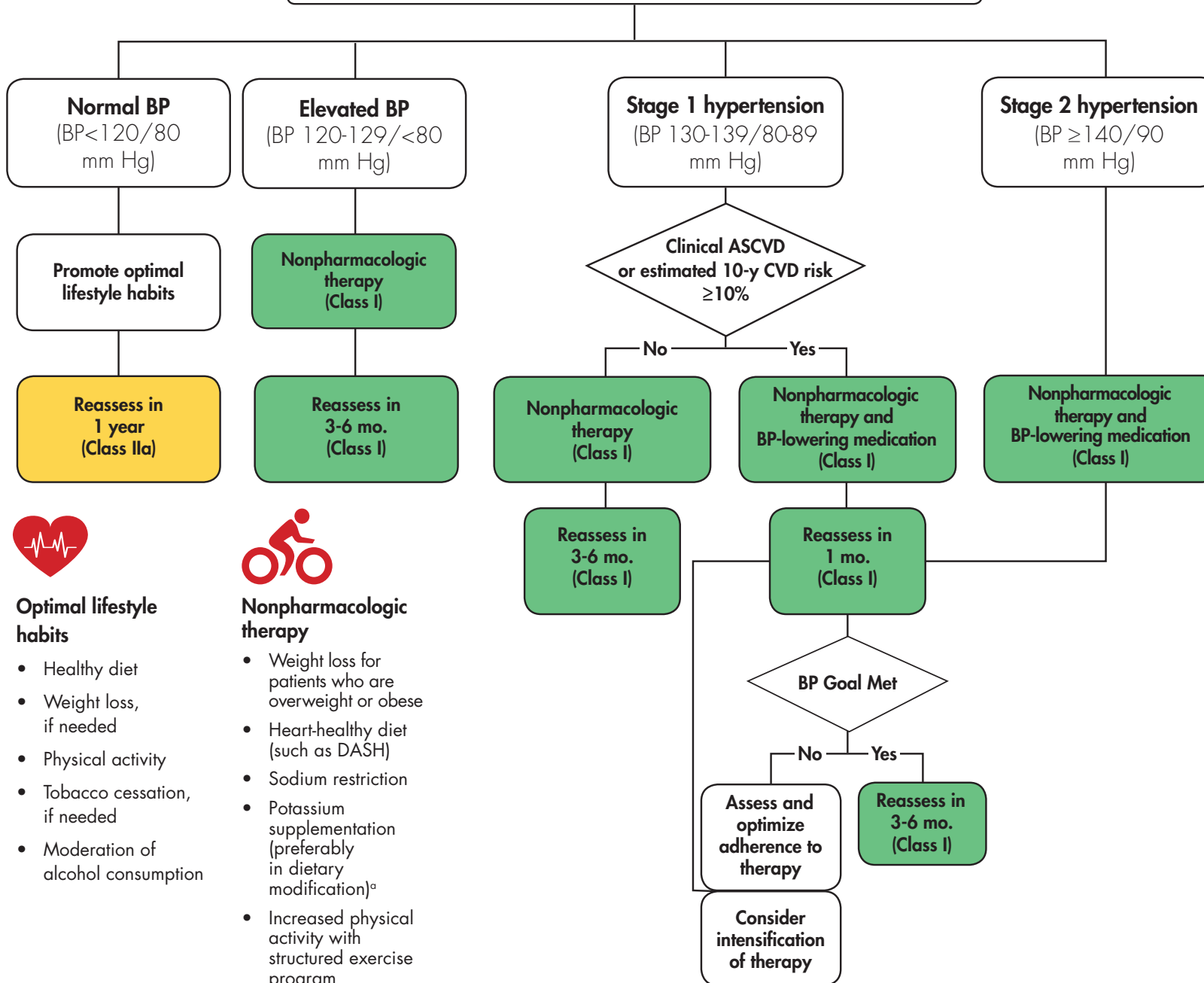
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## Diagnosing and Managing Hypertension in Adults

Nearly half of American adults have high blood pressure, but you can make a difference.

## BP thresholds and recommendations for treatment and follow-up



### Optimal lifestyle habits

- Healthy diet
- Weight loss, if needed
- Physical activity
- Tobacco cessation, if needed
- Moderation of alcohol consumption



### Nonpharmacologic therapy

- Weight loss for patients who are overweight or obese
- Heart-healthy diet (such as DASH)
- Sodium restriction
- Potassium supplementation (preferably in dietary modification)<sup>a</sup>
- Increased physical activity with structured exercise program
- Limitation of alcohol to 1 (women) or 2 (men) standard drinks per day<sup>b</sup>

<sup>a</sup> Unless contraindicated by the presence of chronic kidney disease or use of drugs that reduce potassium excretion.

<sup>b</sup> In the United States, one standard drink is equivalent to 12 oz of regular beer (usually about 5% alcohol), 5 oz of wine (usually about 12% alcohol), or 1.5 oz of distilled spirits (usually about 40% alcohol).



## REASSESSMENT CHECKLIST

- Measure BP
- Identify white-coat hypertension or a white-coat effect
- Document adherence to treatment
- Reinforce importance of treatment
- Assist with treatment to achieve BP target
- Evaluate for orthostatic hypotension in select patients (eg, older or with postural symptoms)
- Talk to your patients about substances that should be avoided, limited or stopped to help maintain a healthy BP.



# Be one in a MILLION HEARTS™

Preventing 1 million heart attacks and strokes over 5 years



## The Problem

Americans suffer almost 2 million heart attacks and strokes each year. Heart disease and stroke (sometimes called a brain attack) are the first and fourth leading causes of death in the United States. They cause about 30% of all deaths. But there's good news! The major risk factors for heart disease and stroke—high blood pressure, cholesterol, smoking, and obesity—*can* be prevented and controlled.

## Our Goals

**Help Americans make healthy choices**, such as quitting smoking and lowering the amount of sodium (salt) and trans fat we eat. Healthy choices from the start mean that fewer people will need to take medicines to control their blood pressure or cholesterol. When it comes to heart health, it is never too late to lower risk! We control our choices.

## Community Health Workers and Million Hearts™

Million Hearts™ is a national program to prevent 1 million heart attacks and strokes in the United States by 2017. The Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS) are the lead federal agencies for this initiative.

Community health workers (CHWs)/promotores de salud, community health representatives, and others can work together with CDC and CMS to help reach the program's goal. For those at risk for high blood pressure and high cholesterol, CHWs can play an important role in prevention.

### To support people in their health care needs, CHWs can—

**TEACH** community members that they need to get screened for high blood pressure and cholesterol. Most of the time, people at risk do not feel sick and are not aware they have these conditions.

**TEACH** community members to ask for and know their blood pressure and cholesterol numbers and to know what healthy levels should be.

**ENCOURAGE** community members to ask their doctor what their goals should be for blood pressure and cholesterol.

**TEACH** community members how important it is for them to control their blood pressure and cholesterol.

**TEACH** community members that uncontrolled high blood pressure and cholesterol can damage their eyes, kidneys, heart, blood vessels, and brain. High blood pressure can also lead to chronic kidney failure requiring dialysis.

**TEACH** community members that high blood pressure and cholesterol will put them at high risk for heart attack, heart failure, and stroke.

**HELP** community members who have diabetes understand the importance of controlling the disease and regularly taking their diabetes medications.

**INTRODUCE** community members to social workers and others who can help them apply for programs and insurance that can help pay for health care.

## To help promote better lifestyle choices, CHWs can—

**HELP** community members learn how to reduce their daily intake of sodium (salt).

**WORK** with community members to find easier, less expensive ways to increase the intake of fruits, vegetables, and lower sodium and whole grain foods in the community, at schools, and at work.

**HELP** people stay active and fit and maintain a healthy weight.

**HELP** people choose a diet low in saturated fat and trans fat.

**HELP** people learn to bake, broil, or roast food instead of frying.

**ENCOURAGE** those who drink alcohol to consume no more than one drink a day for women and no more than two for men. One drink is 1 oz. of hard liquor, 4 oz. of wine, or 12 oz. of beer.

**ENCOURAGE** people to quit smoking and not use tobacco to reduce risks for diseases and improve health in general.

**LEARN** how to help community members apply for programs and insurance that can help pay for health care and other needs.

## Remember Your ABCS! What Does That Mean?

**A is for aspirin.** Sometimes people who have heart problems or who have had a stroke need to take aspirin to help their heart. CHWs can remind people to take aspirin as advised by their doctor.

**B is for blood pressure control.** CHWs can encourage people to take their blood pressure medicines regularly and have their blood pressure checked to make sure that it is within the normal range. This step also tells people whether their blood pressure medicine is working.

**C is for cholesterol management.** CHWs can teach people why it is important to have their cholesterol checked.

**S is for smoking cessation.** CHWs can teach community members about the harmful effects that smoking has on the person smoking and on others around them. CHWs can also teach people about how smoking puts people at risk for heart attack, heart disease, and stroke. CHWs can teach people about other ways to manage stress and depression.

Visit [millionhearts.hhs.gov](http://millionhearts.hhs.gov) for more information about Million Hearts™.

Remember, CHWs are part of the solution.



## Stay connected



[facebook.com/MillionHearts](https://www.facebook.com/MillionHearts)



[twitter.com/@MillionHeartsUS](https://twitter.com/@MillionHeartsUS)

### Resource: CHW Sourcebook

[www.cdc.gov/dhdsp/programs/nhdsp\\_program/chw\\_sourcebook/pdfs/sourcebook.pdf](http://www.cdc.gov/dhdsp/programs/nhdsp_program/chw_sourcebook/pdfs/sourcebook.pdf)



# Pharmacist Pocket Guide

Team up to help your patients  
manage hypertension.



**You are a  
key member of  
the health care  
team for people  
with chronic  
conditions such  
as hypertension.**

Numerous studies have shown that patients can achieve significant improvements in controlling their blood pressure by expanding their health care team to include pharmacists. You can use your knowledge and skills to help them reduce their risk of heart attack and stroke and live better, healthier lives. Often, these brief discussions—whether during the first visit or at follow-ups—will help your patients feel more at ease and prompt them to ask additional questions about their condition.



## Here are some easy ways you can team up with your patients to help control their hypertension:



**Start a relationship.** Get to know your patients so you can determine their levels of awareness about hypertension. Ask simple questions such as, “Do you have questions about your prescription(s)?” to help you judge if patients understand their condition, risks, and the importance of medication adherence.



**Talk about their medication(s).** As you know, hypertensive patients tend to be on more than one drug. Talk about the unique role each drug plays, and the importance of taking them as directed and getting refills on time. If your patients have adherence issues, understand why and suggest they use a reminder aid or a pillbox to organize their medication(s). Inform patients of any possible side effects. If they’re experiencing side effects, suggest ways to manage symptoms, and encourage them to speak directly with their doctor to see if they need changes in treatment. Emphasize the dangers of not taking medications exactly as prescribed without talking to you or their doctor first.



**Discuss a plan for patients to regularly monitor blood pressure.** Make sure patients know their blood pressure goals and suggest they regularly monitor their blood pressure. Recommend they get at-home monitoring equipment or use your pharmacy in-store monitoring device (if available). Suggest that the patient check blood pressure twice per day for at least a week—once in the morning before they take their medication(s) and once in the evening—and log that information in the *Team Up. Pressure Down.* blood pressure journal. Offer to review their blood pressure results during their next visit to see if the medication is working correctly.



**Educate patients about helpful lifestyle changes.** Talk about how a low-sodium diet, exercise, weight loss, and limiting alcohol can help lower blood pressure and protect the heart. Ask about current lifestyle behaviors, such as smoking, that are major risk factors for hypertension. Offer additional counsel and resources such as the DASH eating plan and getting at least 2 hours and 30 minutes of exercise each week to help patients stay on track.



**Keep it simple but direct.** When offering counsel, keep things simple. Avoid unnecessary details or medical terms that can cause confusion.



**To learn more about other ways  
you can team up to get your patients'  
blood pressure down, visit:**

**<http://millionhearts.hhs.gov>**



**Million Hearts™**



**@MillionHeartsUS**



# Hypertension Control



**ACTION STEPS**  
for Clinicians

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To reduce the burden of heart attack and stroke in the United States, the Department of Health and Human Services launched Million Hearts®. The goal of this initiative is to prevent one million heart attacks and strokes by 2017 by implementing proven and effective interventions in clinical settings and communities. Million Hearts® brings together communities, health systems, nonprofit organizations, federal agencies, and private-sector partners from across the country to fight heart disease and stroke.

High blood pressure is one of the leading causes of heart disease and stroke.<sup>1</sup> One in every three U.S. adults (67 million) has high blood pressure, and only about half of these individuals have their condition under control.<sup>2</sup> Of the 36 million

Americans who have uncontrolled hypertension, most have a usual source of care (89.4%), received medical care in the previous year (87.7%), and have health insurance (85.2%).<sup>3</sup>

The purpose of this document is to deliver tested strategies for busy clinicians to aid in efforts related to hypertension control. These strategies were gathered from the published scientific literature (evidence-based) or found to be effective in clinical settings (practice-based). The strategies are organized into three categories of actions to improve delivery system design (Table 1), improve medication adherence (Table 2), and optimize patient reminders and supports (Table 3). This document contains additional resources and references where more information can be found for each action step.

## Strategies for Hypertension Control

Table 1. Actions to Improve Delivery System Design
Implement a standardized hypertension treatment protocol. <sup>4</sup> ▶ Support titration of hypertension medications by clinical team members via a physician-approved protocol. <sup>5,6</sup>
Designate hypertension champions within your practice or organization. <sup>7</sup>
Proactively track and contact patients whose blood pressure is uncontrolled using an electronic health record (EHR)-generated list, patient registry, or other data source. <sup>7-9</sup>
Create a blood pressure measurement station where all patients can rest quietly for 5 minutes before measurement and that is designed to support proper measurement techniques (e.g., feet on floor, proper arm position, multiple cuff sizes conveniently located). <sup>9</sup>
Have care team members review a patient's record before the office visit to identify ways to improve blood pressure control. <sup>7</sup>
Proactively provide ongoing support for patients with hypertension through office visits or other means of contact until blood pressure is controlled. <sup>10</sup>
Implement systems to alert physicians about patterns of high blood pressure readings taken by support staff. <sup>11,12</sup> ▶ Place a sign or magnet on the outside of the examination room. ▶ Build clinical decision supports into the EHR.
Provide feedback to individual clinicians and clinic sites on their hypertension control rates. Provide incentives for high performance, and recognize high performers. <sup>4</sup>
Provide blood pressure checks without a copayment or appointment. Train clerical personnel in proper blood pressure measurement technique so they are capable of obtaining drop-in blood pressure readings. <sup>4,13</sup>
Encourage clinicians to take continuing education on hypertension management and care of resistant hypertension. <sup>4,14</sup>

**Table 2. Actions to Improve Medication Adherence**

Encourage patients to use medication reminders.<sup>15–18</sup>

- ▶ Promote pill boxes, alarms, vibrating watches, and smartphone applications.

Provide all prescription instructions clearly in writing and verbally.<sup>19</sup>

- ▶ Limit instruction to 3–4 major points.
- ▶ Use plain, culturally sensitive language.
- ▶ Use written information or pamphlets and verbal education at all encounters.

Ensure patients understand their risks if they do not take medications as directed. Ask patients about these risks, and have patients restate the positive benefits of taking their medications.<sup>19</sup>

Discuss with patients potential side effects of any medications when initially prescribed and at every office visit thereafter.<sup>20</sup>

Provide rewards for medication adherence.<sup>21</sup>

- ▶ Praise adherence.
- ▶ Arrange incentives, such as coupons, certificates, and reduced frequency of office visits.

Prescribe medications included in the patient's insurance coverage formulary, when possible.<sup>22</sup>

Prescribe once-daily regimens or fixed-dose combination pills.<sup>23–26</sup>

Assign one staff person the responsibility of managing medication refill requests.<sup>27</sup>

- ▶ Create a refill protocol.

Implement frequent follow-ups (e.g., e-mail, phone calls, text messages) to ensure patients adhere to their medication regimen.<sup>15,28–30</sup>

- ▶ Set up an automated telephone system for patient monitoring and counseling.

**Table 3. Actions to Optimize Patient Reminders and Supports**

Provide patients who have hypertension with a written self-management plan at the end of each office visit.<sup>12,31</sup>

- ▶ Encourage or provide patient support groups.
- ▶ Use all staff interactions with patients as opportunities to assist in self-management goal-setting and practices.
- ▶ Print visit summaries and follow-up guidance for patients.

Generate lists of patients with hypertension who have missed recent appointments. Send phone, mail, e-mail, or text reminders.<sup>13</sup>

Contact patients to confirm upcoming appointments, and instruct them to bring medications, a medication list, and home blood pressure readings with them to the visit.<sup>7</sup>

Send a postcard to or call patients who have not had their blood pressure checked recently. Invite them to drop in to have their blood pressure checked by a medical assistant, nurse, or other trained personnel without an appointment and at no charge.<sup>12</sup>

Send patients text messages about taking medications, home blood pressure monitoring, or scheduled office visits.<sup>30</sup>

Encourage patients to use smartphone or Web-based applications to track and share home blood pressure measurements.<sup>32,33</sup>

Encourage home blood pressure monitoring plus clinical support using automated devices with a properly sized arm cuff.<sup>7,34,35</sup>

- ▶ Advise patients on choosing the best device and cuff size.
- ▶ Check patients' home monitoring devices for accuracy.
- ▶ Train patients on proper use of home blood pressure monitors.

Implement clinical support systems that incorporate regular transmission of patients' home blood pressure readings and customized clinician feedback into patient care.<sup>35</sup>

- ▶ Train staff to administer specific clinical support interventions (e.g., telemonitoring, patient portals, counseling, Web sites).
- ▶ Incorporate regular transmission of patient home blood pressure readings through patient portals, telemonitoring, log books, etc., to clinicians and EHR systems.
- ▶ Provide regular customized support and advice (e.g., medication titration, lifestyle modifications) based on patient blood pressure readings.

## Resources

### Resources for Delivery System Design

[American Academy of Family Physicians](#). Using a Simple Patient Registry to Improve Your Chronic Disease Care.

[American Medical Group Foundation](#). Provider Toolkit to Improve Hypertension Control.

[Centers for Disease Control and Prevention](#). Protocol for Controlling Hypertension in Adults.

[Washington State Department of Health](#). Improving the Screening, Prevention, and Management of Hypertension—An Implementation Tool for Clinical Practice Teams.

### Resources for Medication Adherence

[American Academy of Family Physicians](#). Improving Patient Care: Rethinking Refills.

[American College of Preventive Medicine](#). Medication Adherence Time Tool: Improving Health Outcomes.

[Centers for Disease Control and Prevention](#). Medication Adherence Educational Module.

[Script Your Future](#). Adherence Tools.

[Surescripts](#). Clinician's Guide to e-Prescribing: 2011 Update.

### Resources for Patient Reminders and Supports

[Agency for Healthcare Research and Quality](#). Electronic Preventive Services Selector (ePSS).

[American Heart Association](#). Heart360. An Online Tool for Patients to Track and Manage Their Heart Health and Share Information with Healthcare Providers.

[Institute for Healthcare Improvement](#). Partnering in Self-Management Support: A Toolkit for Clinicians.

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Million Hearts® is a U.S. Department of Health and Human Services initiative that is co-led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, with the goal of preventing one million heart attacks and strokes by 2017.



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## Elements Associated with Effective Adoption and Use of a Protocol

### *Insights from Key Stakeholders*

Simple, evidence-based treatment protocols are an essential tool for improving blood pressure control among practices and health care systems. To accelerate the adoption and implementation of protocols, Million Hearts® convened a group of stakeholders who recognize that the use of protocols is key to their success in blood pressure control. Stakeholders consist of protocol owners, key organizations and health care providers who have successfully used protocols within their system. This document is a compilation of comments and insights gained from the stakeholder discussions in fall 2013 about adopting and using hypertension protocols.

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#### **Audit and Feedback**

- ▷ Identify a key influencer to serve as a champion.
- ▷ Identify mentors to provide consultation on implementation.
- ▷ After baseline data are collected, discuss and set a goal, such as “Increase by 10% the number of hypertensive patients aged 18 years or older whose blood pressure is under control.”
- ▷ Use an electronic or paper registry that identifies patients with high blood pressure and allows tracking over time.
- ▷ Use electronic health records to collate and analyze clinical information.
- ▷ Provide regular and timely feedback on performance to the entire health care team.
- ▷ Make performance data transparent and learn from those who are reaching the goal.
- ▷ Celebrate early wins.

#### **Team-Based Care**

- ▷ Make hypertension control a priority.
- ▷ Fully use the expertise and scope of practice of every member of the health care team: physician, advanced practice nurse, physician’s assistant, nurse, hospital and community pharmacist, medical assistant, care coordinator, and others.
- ▷ Include the patient and family as key members of the team.
- ▷ Conduct pre-visit planning to make the most of the care encounter, such as ensuring that patients bring in their home readings and ask questions or express concerns, including about access to medications and monitoring equipment, adverse effects of medications, and challenges with diet and exercise.
- ▷ Learn about community resources and recommend them to patients.
- ▷ When hypertension is not controlled, look for opportunities to check in with patients between visits and adjust medication dose as needed.



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## Professional and Patient Education

- ▷ Provide the health care team with the evidence base for adopting and using protocols.
- ▷ Train the health care team on how to use the protocol.
- ▷ Offer ongoing training to staff on how to measure blood pressure accurately.
- ▷ Calibrate and inspect equipment at regular intervals to ensure correct blood pressure measurement during patient visits.
- ▷ Emphasize the value of home blood pressure monitoring.
- ▷ Incorporate coaching and self-management into patient education and follow-up visits.

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# Improving Medication Adherence Among Patients with Hypertension

A Tip Sheet for Health Care Professionals



**Medication adherence** is critical to successful hypertension control for many patients. However, only 51% of Americans treated for hypertension follow their health care professional's advice when it comes to their long-term medication therapy.<sup>1</sup>

Adherence matters. High adherence to antihypertensive medication is associated with higher odds of blood pressure control, but non-adherence to cardioprotective medications increases a patient's risk of death from 50% to 80%.<sup>1</sup>

As a health care professional, you can empower patients to take their medications as prescribed. Effective two-way communication is critical; in fact, it doubles the odds of your patients taking their medications properly. Try to understand your patients' barriers and address them honestly to build trust.

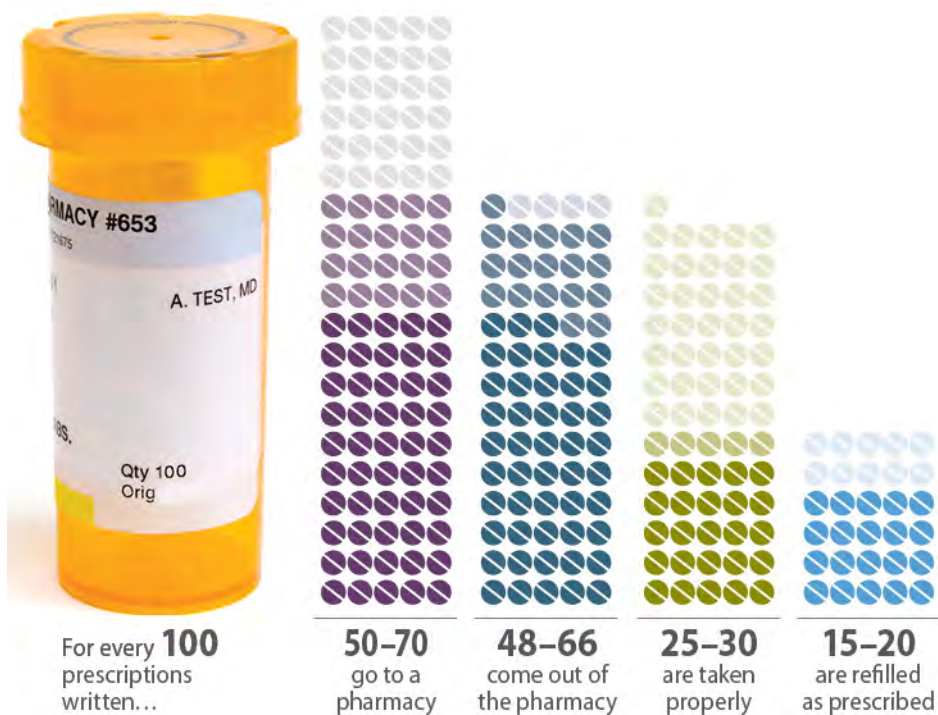
## Predictors of Non-Adherence

When discussing medications, be aware if your patient:

- ▶ Demonstrates limited English language proficiency or low literacy.
- ▶ Has a history of mental health issues like depression, anxiety, or addiction.
- ▶ Doesn't believe in the benefits of treatment.
- ▶ Believes medications are unnecessary or harmful.
- ▶ Has a concern about medication side effects.
- ▶ Expresses concern over the cost of medications.
- ▶ Says he or she is tired of taking medications.

These can all be predictors of a patient who may struggle with adherence to medication.

## Medication Adherence by the Numbers\*



\*This data applies to all medication types, not only hypertension medication.

<sup>1</sup>Ho PM, Bryson CL, Rumsfeld JS. Medication adherence: its importance in cardiovascular outcomes. *Circulation*. 2009;119:3028-3035.



As a health care professional, you can empower patients to take their medications as prescribed. Effective two-way communication is critical; in fact, it doubles the odds of your patients taking their medications properly.

## Use the SIMPLE method to help improve medication adherence among your patients

### Simplify the regimen

- ▶ Encourage patients to use adherence tools, like day-of-the-week pill boxes or mobile apps.
- ▶ Work to match the action of taking medication with a patient's daily routine (e.g., meal time or bed time, with other medications they already take properly).

### Impart knowledge

- ▶ Write down prescription instructions clearly, and reinforce them verbally.
- ▶ Provide websites for additional reading and information—find suggestions at the [Million Hearts®](#) website.

### Modify patients' beliefs and behavior

- ▶ Provide positive reinforcement when patients take their medication successfully, and offer incentives if possible.
- ▶ Talk to patients to understand and address their concerns or fears.

### Provide communication and trust

- ▶ Allow patients to speak freely. Time is of the essence, but research shows that most patients will talk no longer than 2 minutes when given the opportunity.
- ▶ Use plain language when speaking with patients. Say, "Did you take all of your pills?" instead of using the word "adherence."
- ▶ Ask for patients' input when discussing recommendations and making decisions.
- ▶ Remind patients to contact your office with any questions.

### Leave the bias

- ▶ Understand the predictors of non-adherence and address them as needed with patients.
- ▶ Ask patients specific questions about attitudes, beliefs, and cultural norms related to taking medications.

### Evaluate adherence

- ▶ Ask patients simply and directly whether they are sticking to their drug regimen.
- ▶ Use a medication adherence scale—most are available online:
  - ▷ Morisky-8 (MMAS-8)
  - ▷ Morisky-4 (MMAS-4 or Medication Adherence Questionnaire)
  - ▷ Medication Possession Ratio (MPR)
  - ▷ Proportion of Days Covered (PDC)

Source: <http://www.acpm.org/?MedAdhereTTProviders>

**Find and download additional materials** to help your patients control hypertension at the [Million Hearts®](#) website.



# Self-Measured Blood Pressure Monitoring (SMBP) Implementation Toolkit

MARCH 2023



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# SMBP

## IMPLEMENTATION TOOLKIT

### PURPOSE:

This toolkit is designed to help organizations implement self-measured blood pressure monitoring (SMBP) successfully into their care processes and workflows.

### ORGANIZATION:

It is comprised of four parts that will help organizations determine their goals and priority populations, align their SMBP patient training approach to their practice environment, consider SMBP tasks by role—and particularly how many can be accomplished by a non-clinician, review key features and functionalities to consider in choosing a SMBP data management software solution/technology partner, and ultimately develop a protocol that will help organizations implement SMBP using a comprehensive, practical, step-by-step approach based on the experiences and lessons learned of other implementing organizations and in accordance with the June 2020 [Self-measured Blood Pressure Monitoring at Home: A Joint Policy Statement from the American Heart Association and American Medical Association](#).

### INSTRUCTIONS:

- 1 Review [SMBP in Clinical Practice](#)
- 2 Complete [Determining Your SMBP Goals and Priority Populations](#)
- 3 Work through the [SMBP Protocol Design Checklist](#)
- 4 Use the [SMBP Tasks by Role](#) and [Aligning your SMBP Patient Training Approach to your Practice Environment](#) diagrams to adapt your SMBP care model to your patients' preferences, staffing capacity, other clinical initiatives or priorities, and local environment
- 5 Review the important decision criteria for [Optimizing Management of Patient-Generated Health Data for SMBP Programs](#)





### INTEGRATING SMBP INTO HYPERTENSION CARE PRACTICES

**What is SMBP?** Self-measured blood pressure monitoring (SMBP) refers to blood pressure measurements taken outside of the clinical setting, usually at home. SMBP helps with both diagnosis and management of hypertension and increases patient participation in their own care. SMBP, when combined with other clinical supports, improves hypertension control.

**A Complete Cycle of SMBP** = 2 measurements, 1 minute apart, in the morning and evening for a 7-day period. At least 3 days (12 measurements) are the minimum needed for SMBP. The average BP is calculated from all measurements from the 7-day period into one systolic BP average and one diastolic BP average. This overall BP average is used as a diagnostic tool and for treatment decisions.

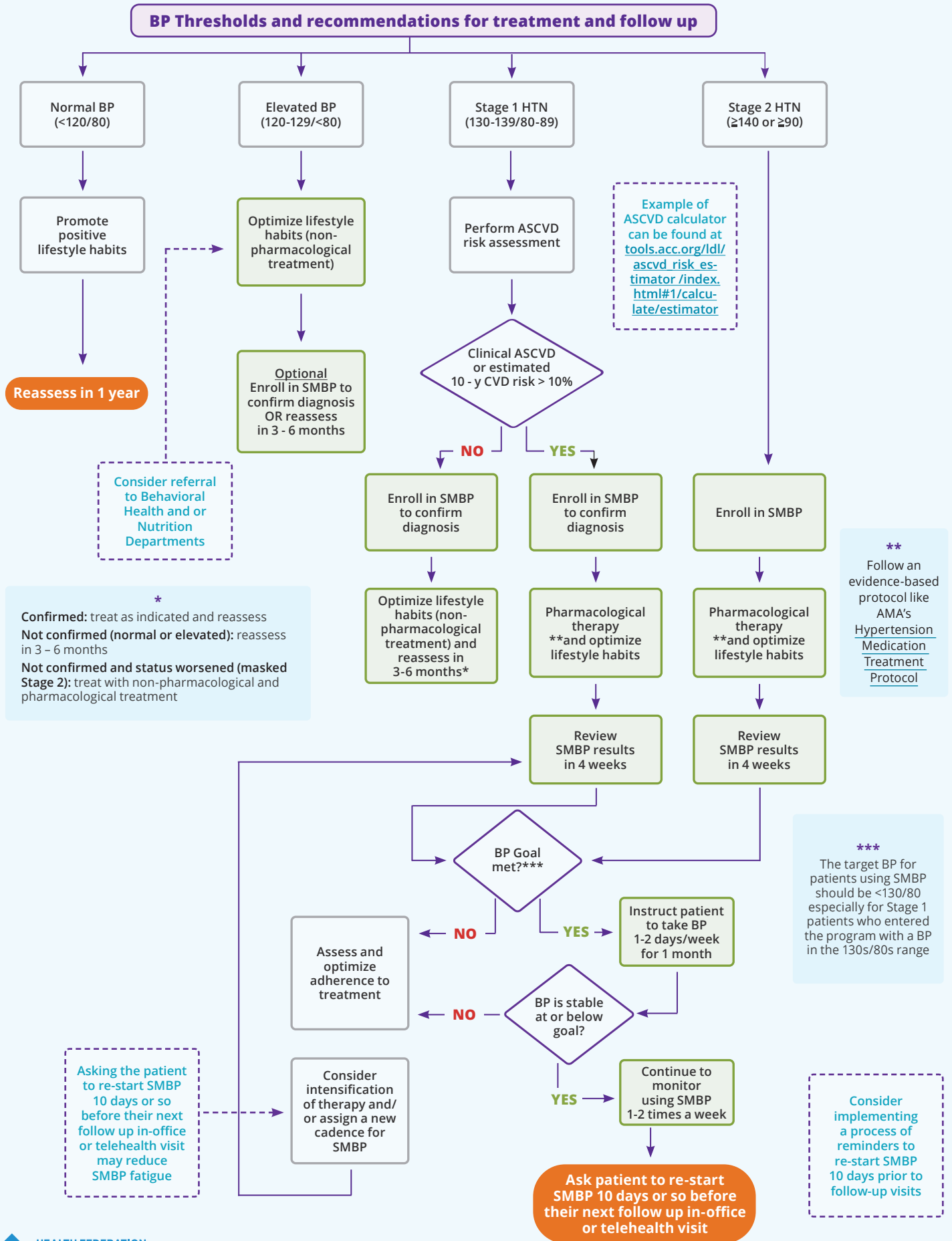
To integrate the use of self-measured blood pressure monitoring (SMBP) within hypertension care, consider three targeted clinical uses for SMBP:

- **Accurate Diagnosis:** SMBP is an evidence-based strategy for patients to use at home or in their usual environment for an accurate blood pressure (BP) gauge because it collects an average of BP measurements over several days and has been shown to eliminate white coat hypertension. The average BP measurement (average systolic BP and average diastolic BP) from these patient-generated health data—one SMBP cycle—should be reviewed by the care team to inform clinical action. When used as a diagnostic tool, SMBP rules out white coat hypertension, identifies masked hypertension, and is used to confirm a hypertension diagnosis after an elevated office BP measurement.
- **Medication Titration:** SMBP may also be used to gauge how well medication works for patients with hypertension. After starting medication or a medication change, patients should complete a cycle of SMBP. The average BP is then reviewed by the care team every 2-4 weeks to confirm whether the medication and dose being used are effective or if adjustments are needed so that patients reach their BP goal. Use text, phone, or email reminders to keep patients on schedule and provide any technical support.
- **Maintaining Control:** To maintain blood pressure control, patients should follow the SMBP protocol once every 3-6 months prior to their next scheduled visit. Average BP measurements should be shared with the care team to inform whether additional clinical action is needed.

Patients might “graduate” or deactivate from doing complete cycles of SMBP after reaching their BP goal. Because SMBP is an evidence-based tool for hypertension diagnosis and long-term management, ideally, a BP monitor is issued to the patient to keep. This way, participation in SMBP can be activated at follow up intervals to maintain blood pressure control and sustain hypertension goals over the patient’s lifetime.

To illustrate one approach to using SMBP effectively within a health care organization’s hypertension care protocol, see the following sample workflow from the Health Federation of Philadelphia.

# SMBP TREATMENT WORKFLOW





# PLANNING FOR SMBP—DETERMINING YOUR GOALS AND PRIORITY POPULATION

How big do you go? Ideally and ultimately, everybody with hypertension should have their own home blood pressure monitor, but in a resource-constrained healthcare environment, that may not always be feasible...at least in the near-term. How do you best align your self-measured blood pressure monitoring (SMBP) goals with your current environment and where it will do the most good? The following diagram is designed to assist with this first important step in planning for SMBP. The ideas below do not represent an exhaustive list of possible SMBP goals and priority populations, but rather are intended to serve as a launchpad to help you think about ways to get the most out of SMBP in your practice. There may be overlap in the populations and you may choose to focus on multiple populations/goals.

POSSIBLE PRIORITY POPULATION	POSSIBLE GOALS
<b>Align SMBP with Existing Chronic Disease Efforts or Programs</b> For example, perhaps your organization has an initiative for diabetics, many of whom have hypertension OR a program in place to assist patients with adopting healthy lifestyle behaviors that could serve as a natural pilot group to implement SMBP on a smaller scale	Use SMBP to enhance services for existing chronic disease programs/populations
<b>Leverage SMBP to Accelerate Use of Digital Patient-Generated Data</b> Focus on hypertension patients who would be good candidates for testing Bluetooth monitors with apps or other electronic modes of patient data transmission	Use SMBP to enhance services for existing chronic disease programs/populations
<b>Patients with Uncontrolled Hypertension</b> Consider further risk stratification using factors like whether the most recent office BP was Stage 2: $\geq 140$ or $\geq 90$ mm Hg and/or patients have multiple co-morbidities, such as diabetes or hypercholesterolemia	Use SMBP to help the highest risk patients achieve BP control
<b>Patients with Newly Diagnosed Hypertension</b> Focus on patients who received a hypertension diagnosis in the last 6 months	Use SMBP to engage and help titrate medications for newly diagnosed hypertension patients
<b>Patients with Potential Undiagnosed Hypertension</b> Focus on patients who have multiple elevated BP readings in the past 12 months without a diagnosis of hypertension AND/OR patients coded with elevated BP without a diagnosis of hypertension (ICD-9 786.3 or ICD-10 R03.0)	Use SMBP to improve timely and accurate hypertension diagnosis, including ruling out white coat effect
<b>Patients with Medication Adherence Challenges</b> Use a tool like the Morisky scale <sup>1</sup> to assess medication adherence among patients with diagnosed hypertension or work with pharmacists/payers to obtain prescription fill data that can help with calculating measures like the medication possession ratio or proportion of days covered <sup>2</sup>	Use SMBP to engage and help titrate medications for patients with hypertension who have medication adherence barriers
<b>Patients who Have Office Visit Barriers</b> Certain patients with hypertension may benefit from less frequent in-office visits (i.e., have restricted numbers of visits from their payer, have work conflicts, transportation barriers, OR prefer a virtual visit due to COVID-19)	Use SMBP to engage hypertension patients who are better served out of the clinic

<sup>1</sup> Morisky DE, Ang A, Krousel-Wood M, Ward HJ. Predictive Validity of A Medication Adherence Measure in an Outpatient Setting. *Journal of Clinical Hypertension (Greenwich, Conn)*. 2008;10(5):348-354.

<sup>2</sup> Crowe M. Do you know the difference between these measures? *Pharmacy Times*, July 5, 2015. <https://www.pharmacytimes.com/contributor/michael-crowe-pharmd-mba-csp-fmpa/2015/07/do-you-know-the-difference-between-these-adherence-measures>. Accessed June 28, 2018.



# SMBP PROTOCOL DESIGN CHECKLIST

## PURPOSE:

After determining your organizational goals for implementing SMBP and your priority population(s), you are ready to develop a SMBP protocol. This protocol will help care teams operationalize SMBP successfully into care processes and workflows. The SMBP Protocol Design Checklist is based on the experiences and lessons learned of 10 health centers that implemented SMBP in a diversity of environments with a variety of staffing models and patient mixes.

## INSTRUCTIONS:

Read the items in the left column and add your own notes/decisions in the right column. In some cases, the right side is pre-populated with options to check off as they apply.

### SMBP SCOPE

<input type="checkbox"/> Determine organizational goals for using SMBP	SMBP Goals:
<input type="checkbox"/> Determine priority population(s)*	Priority Population(s):

\*See SMBP Model Design: [Determining your Goals and Target Population](#)

### HOME BP MONITORS

<input type="checkbox"/> Determine which home BP monitors to use. Choose a <a href="#">validated upper arm device</a> . Consider: whether it comes with an XL cuff, Bluetooth capability, memory storage capacity, multiple users, ease of use, insurance coverage, cost	Selected Home BP Monitor:
<input type="checkbox"/> Determine which "patient-facing" app you will use (see <a href="#">Optimizing Management of Patient-Generated Health Data for SMBP Programs</a> ).	Selected app:
<input type="checkbox"/> Determine how patients will obtain home BP monitors	<input type="checkbox"/> Loaned <input type="checkbox"/> Purchased by health center (for patient to keep) <input type="checkbox"/> Purchased by patient <input type="checkbox"/> Purchased by supporting organization (for patient to keep) <input type="checkbox"/> Purchased through insurer
<input type="checkbox"/> Determine how patients will physically receive their home BP monitor, if loaned or purchased by other than the patient	<input type="checkbox"/> Full face-to-face visit <input type="checkbox"/> Mailed to patient <input type="checkbox"/> Quick stop by health center <input type="checkbox"/> Staff delivers to patient
<input type="checkbox"/> Determine number of home BP monitors to purchase (if loaned, plan on 3 devices per care team)	<input type="checkbox"/> Number of home BP monitors to purchase: _____ <input type="checkbox"/> Patient Keeps: _____ <input type="checkbox"/> To Loan: _____

<input type="checkbox"/> <b>Determine number of cuff sizes to purchase</b>  <b>Note:</b> 50% of health center patients required XL cuff sizes among the 10 health centers that participated in the NACHC Accelerating SMBP Project. <u>Recommendation:</u> choose a validated home BP monitor that has cuff options that fit arms up to 21.21" in circumference.	<input type="checkbox"/> Number of Standard/Large Cuffs (fits arm sizes 8.75" – 16.5"): _____ <input type="checkbox"/> Patient Keeps: _____ <input type="checkbox"/> To Loan: _____ <input type="checkbox"/> Number of Extra-Large Cuffs (fits arm sizes 15.75" – 21.25"): _____ <input type="checkbox"/> Patient Keeps: _____ <input type="checkbox"/> To Loan: _____
<input type="checkbox"/> <b>Determine how long patients will keep monitors (if loaned) (e.g., 2 weeks, 1 month, etc.)</b>	Our protocol: Complete this section only if you intend to loan home BP monitors to patients.
<input type="checkbox"/> <b>Determine how patients will return monitors</b>	Our protocol:
<input type="checkbox"/> <b>Determine what controls to put in place if patients do not return home BP monitors (e.g., # of phone calls, # letters, etc.)</b>	Our protocol:
<input type="checkbox"/> <b>Determine where home BP monitors will be physically stored (consider separate locations for "clean" vs. "dirty")</b>	Our protocol:
<input type="checkbox"/> <b>Determine how home BP monitors are tracked, inventoried, cleaned, and managed</b>	Our protocol:

## KEY SMBP STAFF

<input type="checkbox"/> <b>SMBP Coordinator</b> (has authority, time, and skills to coordinate all aspects SMBP implementation)	<b>SMBP Coordinator:</b>		
<input type="checkbox"/> <b>SMBP Trainers</b> (at least one per site; educates patient on how to use the home BP monitor, how to get home BP readings back to the care team, how often to do measurements, and proper technique)	<b>Site</b>	<b>SMBP Trainer</b>	<b>Available Daily for Warm Handoff</b>
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> <b>SMBP Device Manager</b> (tracks, inventories, cleans, calibrates, stores home BP monitors)	<b>Site</b>	<b>SMBP Device Manager</b>	
<input type="checkbox"/> <b>SMBP Clinical Champion</b> (has time to facilitate implementation success, key influencer)	<b>Site</b>	<b>SMBP Clinical Champion</b>	
<input type="checkbox"/> <b>SMBP Outreach Coordinator</b> (coordinates contacting patients to recommend SMBP and after they initiate SMBP to ensure understanding of proper measurement technique, etc.)	<b>Site</b>	<b>SMBP Outreach Coordinator</b>	
<input type="checkbox"/> <b>SMBP Data Manager</b> (receives, possibly enters, prepares, and manages SMBP data)			

## SMBP PATIENT IDENTIFICATION

<input type="checkbox"/> <b>Determine any selection criteria beyond eligibility for population of focus</b> (e.g. consider availability of interpreters, physical or mental capacity to use a home blood pressure monitor, safe place to store a home blood pressure monitor, no show history, patient interest, etc.)	Our protocol:
<input type="checkbox"/> <b>Determine patient identification methods</b>	<input type="checkbox"/> At the point of care: <ul style="list-style-type: none"> <li><input type="checkbox"/> Clinical decision support in EHR</li> <li><input type="checkbox"/> Clinician recommends</li> <li><input type="checkbox"/> Patient screening/preference survey</li> <li><input type="checkbox"/> Pre-visit planning</li> </ul> <input type="checkbox"/> Patient requests to do SMBP <input type="checkbox"/> Registry queries and targeted outreach
<input type="checkbox"/> <b>Determine how to assess if appropriate patients are being identified and offered SMBP</b>	Our protocol:

## SMBP RECOMMENDATION

<input type="checkbox"/> <b>Determine who recommends SMBP to the patient at the point of care</b>	<input type="checkbox"/> Clinician <input type="checkbox"/> MA <input type="checkbox"/> Nurse <input type="checkbox"/> Pharmacist <input type="checkbox"/> Other
<input type="checkbox"/> <b>(If applicable) determine who conducts outreach calls to recommend SMBP to the patient</b>	<input type="checkbox"/> Clinician <input type="checkbox"/> MA <input type="checkbox"/> Nurse <input type="checkbox"/> Pharmacist <input type="checkbox"/> Other

## SMBP TRAINING

<input type="checkbox"/> <b>Determine who trains the patient on SMBP</b>  <i>See <a href="#">SMBP Task by Role</a></i>	<input type="checkbox"/> Clinician <input type="checkbox"/> MA <input type="checkbox"/> Nurse <input type="checkbox"/> Pharmacist <input type="checkbox"/> Other
<input type="checkbox"/> <b>Determine how the patient will connect with the SMBP Trainer</b> (e.g., warm hand-off, follow-up visit, etc.)	Our protocol:
<input type="checkbox"/> <b>Determine SMBP training curriculum/resources</b> [e.g., What is SMBP?; protocol (2 measurements AM and PM for 7 days) how to use the device; how to take BP at home properly (technique); how to communicate measurements to care team; what to do for an out-of-range BP; loaner agreement]	Our protocol:

## SMBP OUTREACH SUPPORT AND FOLLOW-UP

<input type="checkbox"/> Determine how outreach support will be provided to patients	<input type="checkbox"/> Electronic patient communication (text or email programs) <input type="checkbox"/> Home visit <input type="checkbox"/> Scheduled telehealth check-in <input type="checkbox"/> Unscheduled telephone call
<input type="checkbox"/> Determine encounter type for initial follow-up appointment	<input type="checkbox"/> Face-to-face visit with: <ul style="list-style-type: none"> <li><input type="checkbox"/> Nurse</li> <li><input type="checkbox"/> Pharmacist</li> <li><input type="checkbox"/> Physician/PA/NP</li> </ul> <input type="checkbox"/> Telehealth visit with: <ul style="list-style-type: none"> <li><input type="checkbox"/> Nurse</li> <li><input type="checkbox"/> Pharmacist</li> <li><input type="checkbox"/> Physician/PA/NP</li> <li><input type="checkbox"/> Home visits</li> <li><input type="checkbox"/> Other</li> </ul> <input type="checkbox"/> Other
<input type="checkbox"/> Develop any collaborative practice agreements needed	<input type="checkbox"/> Nurse visits <input type="checkbox"/> Pharmacists: <ul style="list-style-type: none"> <li><input type="checkbox"/> Medication titration</li> <li><input type="checkbox"/> Refill authorization</li> </ul>

## SMBP DATA MANAGEMENT

<input type="checkbox"/> Determine how patients will record/share data with the care team	Our protocol:
<input type="checkbox"/> Determine what types of SMBP measurements clinicians want to see	<input type="checkbox"/> 7-day SMBP averages <input type="checkbox"/> All individual home BP readings <input type="checkbox"/> Outlier BP readings (very high or very low)
<input type="checkbox"/> Determine what additional SMBP-related data elements are important to capture (e.g., flagging patients for SMBP, date started/completed SMBP, number of measurements/days, reason for SMBP, treatment decisions, etc.)	Our protocol:
<input type="checkbox"/> Determine where SMBP data will be documented (may require custom HIT configuration) see <a href="#">Optimizing Management of Patient-Generated Health Data for SMBP Programs</a>	<input type="checkbox"/> Direct to EHR from Home BP Monitor <input type="checkbox"/> Manually document in EHR <input type="checkbox"/> Population Health Management system <input type="checkbox"/> Spreadsheet <input type="checkbox"/> Vendor Portal <input type="checkbox"/> Other
<input type="checkbox"/> Determine when and at what frequency clinicians want to review SMBP data (i.e., where and in what format does it fit in the workflow)	Our protocol:
<input type="checkbox"/> Determine if SMBP is having desired effect (e.g., number of patients enrolled, starting BP, Average BP on graduation, number of treatment intensifications, days/weeks between treatment intensification)	Our protocol:

## COMMUNITY LINKAGES

<input type="checkbox"/> Determine what role community partners could play to support or optimize the efficiency/capacity of your SMBP efforts  <i>See <a href="#">SMBP Tasks by Role</a></i>	<input type="checkbox"/> Conduct outreach <input type="checkbox"/> Provide lifestyle support programs/education <input type="checkbox"/> Provide SMBP trainers <input type="checkbox"/> Supply funds to purchase home blood pressure monitors <input type="checkbox"/> Other
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## OPTIMIZING MANAGEMENT OF PATIENT-GENERATED HEALTH DATA FOR SELF-MEASURED BLOOD PRESSURE MONITORING (SMBP) PROGRAMS

A key part of setting up SMBP is deciding how to manage patient-generated health data. To ensure your organization is choosing an optimal data management solution/technology partner for use with your home blood pressure devices, it is important to consider the features and functionalities available in various BP telemonitoring software options.

Many home blood pressure devices enable digital data storage and transfer of SMBP data through a cellular or Wi-Fi network to a cloud-based web portal for use by the care team.



Some home blood pressure devices can connect via Bluetooth technology to a patient-facing smart phone app and then transfer the data to a cloud-based web portal via a cellular or Wi-Fi network.



**NOTE:** Some apps are manufacturer specific and others are not specific to a certain brand of home blood pressure device and can be purchased separately.

BP telemonitoring software vendors may offer an array of integration capabilities with electronic health records (EHRs) or population health management systems.





## DECISION CRITERIA:

The criteria below indicate features of SMBP patient-facing applications, clinical team web portals, and EHR integration capabilities that organizations can consider when deciding which BP telemonitoring software solution/vendor to choose.



### ■ Clinical Team-facing Application/Web Portal

- Configurable dashboard view (e.g., the ability to sort patients by BP reading, status, clinical site, etc.)
- Supports basic analytics
  - Number of patients enrolled
  - Baseline BP on enrollment
  - Ability to identify a cohort of patients based on date of enrollment
  - BP at graduation
  - Number of days from enrollment to graduation
  - Exportable structured data capability (specify format(s), e.g., PDF, .csv)
  - Number of active patients, inactive, graduated, re-enrolled patients
- Ability to designate status (Active, Newly enrolled, Inactive, Graduated, Re-enrolled)
- Ability to configure average systolic, diastolic, or combined BP across a specified amount of days
- Ability to indicate BPs that fall outside a specified range (outlier values)
- Allows for flexible/tailorable patient BP goal setting
- Allows the practice to purchase active user “seats” as opposed to imposing a cost per patient
- Vendor supports having a data use agreement governing how patient level data can be used by the vendor
- Vendor is willing to sign a Business Associate Agreement with the practice for privacy protections

**NOTE:** Many software vendors see themselves as engaging in a privacy agreement with the patient when the patient downloads and signs up for the patient-facing app; however, most health care organizations see themselves as the prescriber of SMBP and using the app is a component of their SMBP program, which makes a BAA desirable.

### ■ Patient-facing Application



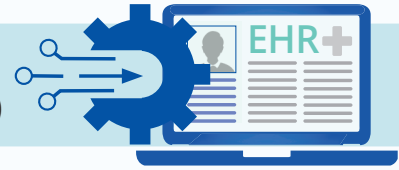
#### Essential

- HIPAA compliant
- Supports Android and iOS
- Free to the patient

#### Nice to Have

- Device-manufacturer agnostic
- Supports reasonable literacy level to enhance patient understanding
- Available in multiple languages with the possibility of adding languages as needed
- Supports patient education on the proper way to take a BP
- Prompts patient to take a second BP after 1 minute
- Supports text messaging communication – individual and text message blasts
- Provides technical support for patients as needed
- Allows for patient registration via cell phone number vs. email only (some patients only have a cell phone number, not an email address)
- Integrates with other health apps

## ■ Integration of BP Telemonitoring Software with EHRs (and/or Population Health Management Systems)



- Potential for EHR integration that includes:
  - Seamless enrollment from the EHR (receives demographic data from the EHR and recognizes if the patient has already been enrolled through this practice or through another practice; creates the clinical portal enrollment automatically and as indicated)
  - The ability to send structured data available (average BP as well as individual values)
  - The ability to receive critical information from the EHR (e.g., problem list information, medications)
  - Customizable clinician notification cadence/content
  - Configurable trigger for sending BP values
- Tech support available
- Standards-based (e.g., FHIR/API connection or HL7)  
**NOTE:** *often the limitation is with the EHR, not with the SMBP software*

## ■ EHR Configuration Factors



Another important component of optimizing management of patient-generated health data for SMBP is setting up the EHR to receive data from the clinical team-facing application. Most EHRs today do not have standard places ready to ingest SMBP data, but they can be custom configured either at the practice level or by the EHR vendor. Below are a list of essential and nice-to-have data fields to support SMBP:

### Essential:

- Average BP (labeled as such) separate and distinct from a single BP measurement
- Number of BP readings that constitute the average
- The highest and lowest measurement in the set
- Date range for the BP readings that constitute the average

### Nice to have:

- Capture the device manufacturer and model
- Capture the device size
- Capture data related to medication adherence
- Capture the team member interacting with the patient (e.g., care manager, pharmacist, provider etc.)
- Automatically capture CPT codes indicating HTN control



# SMBP MONITORING TASKS BY ROLE

From: [Accelerating Use of Self-measured Blood Pressure Monitoring \(SMBP\) Through Clinical-Community Care Models](#)

## MUST BE DONE BY LICENSED CLINICIAN

- ① Diagnose hypertension
- ② Prescribe medication(s)
- ③ Provide SMBP measurement protocol
- ④ Interpret patient-generated SMBP Readings
- ⑤ Provide medication titration
- ⑥ Provide lifestyle modification recommendations

## MUST BE DONE BY PATIENT

- ① Take SMBP measurements
- ② Take medications as prescribed
- ③ Make recommended lifestyle modifications
- ④ Convey SMBP measurements to care team
- ⑤ Convey side effects to care team

## CAN BE DONE BY SMBP SUPPORTER<sup>a</sup>

- ① Provide guidance on home blood pressure (BP) monitor selection
- ② If needed, provide home BP monitor (free or loaned)
- ③ Provide training on using a home BP monitor
- ④ Validate home BP monitor against a more robust machine
- ⑤ Provide training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log)
- ⑥ Reinforce clinician-directed SMBP measurement protocol
- ⑦ Provide outreach support to patients using SMBP
- ⑧ Share medication adherence strategies
- ⑨ Provide healthy lifestyle education

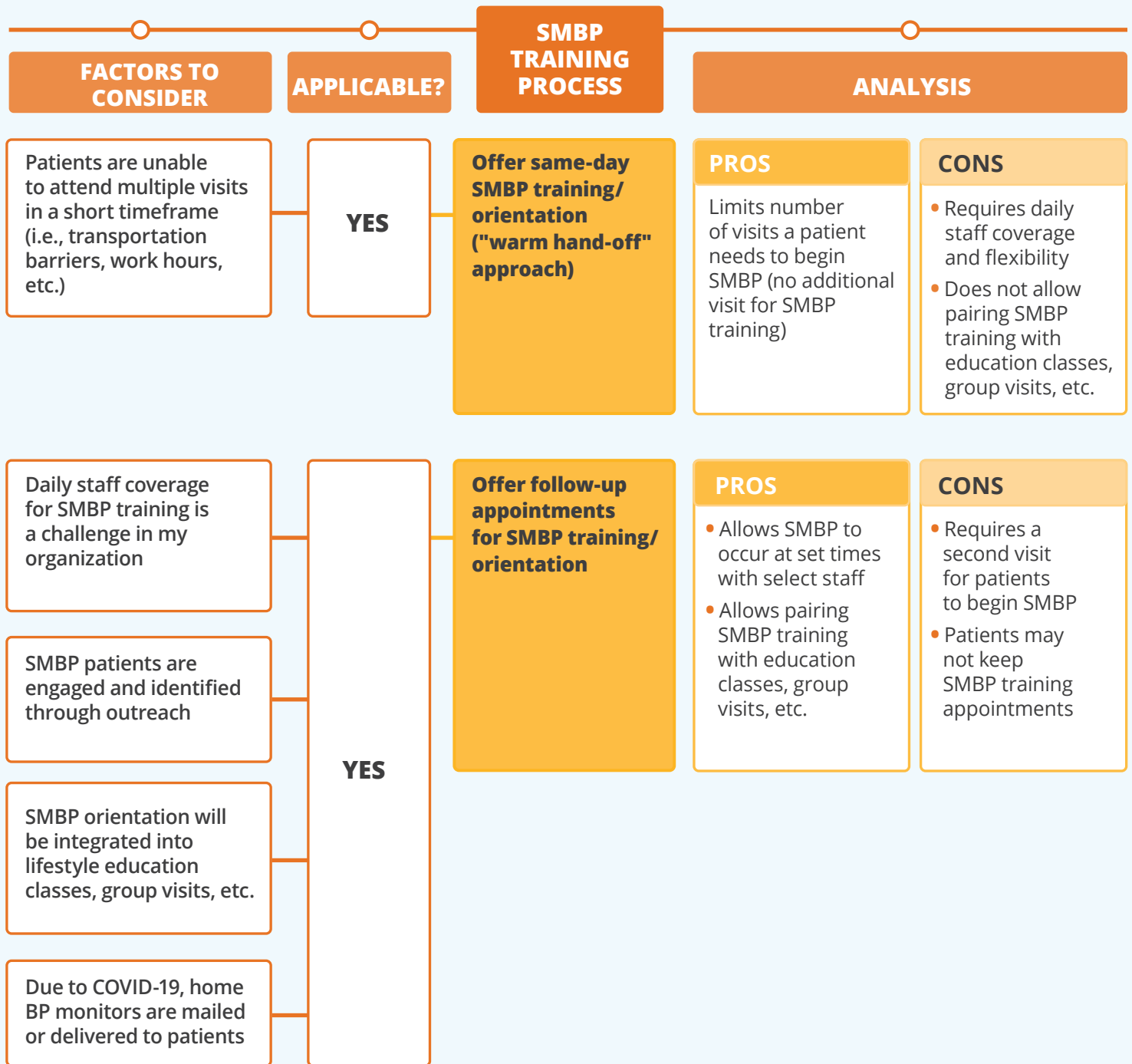
## OPTIONAL SMBP SUPPORTER TASKS

- ① Reinforce training on using a home BP monitor
- ② Reinforce training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log)
- ③ Reinforce knowledge of behaviors that can trigger high blood pressure

<sup>a</sup>Medical assistant, community health worker, local public health department/community organization representative, etc.



# ALIGNING YOUR SMBP PATIENT TRAINING APPROACH TO YOUR PRACTICE ENVIRONMENT





## ADDITIONAL RESOURCES

[NACHC Million Hearts® Initiative](#)

[Self-Measured Blood Pressure \(SMBP\) Monitoring Tools and Resources](#)

[Buying Home Blood Pressure Monitors to Support SMBP: How to Get Started](#)

How to Use Your Home Blood Pressure Monitor: [English](#) | [Spanish](#)

[Self-Measurement: How patients and care teams are bringing blood pressure to control](#)

[Health IT Checklist for Blood Pressure Telemonitoring Software](#)

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# Supporting Your Patients with High Blood Pressure Visit Checklist



## Questions to Ask

Consider using these to get a discussion going:

- ▶ What have you been doing since our last visit to control your blood pressure?
- ▶ What concerns you the most about your high blood pressure?
- ▶ What specifically would you like to work on to manage your high blood pressure?
- ▶ How confident are you that you could do [behavior] to help control your blood pressure?
- ▶ What might get in the way or keep you from being successful?
- ▶ What do you think would make it easier to control your high blood pressure?

**Million Hearts®** is a national initiative to prevent 1 million heart attacks and strokes by 2017. It is led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, two agencies of the Department of Health and Human Services.

The Million Hearts® word and logo marks and associated trade dress are owned by the U.S. Department of Health and Human Services (HHS). Use of these marks does not imply endorsement by HHS.

**E**ffective provider-patient communication improves health and saves time. Use this checklist as a guide during visits with patients working to control high blood pressure.

- Explain roles of members of the health care team.
- Ask, “What is most important for you to accomplish during your visit today?” The answer helps set the agenda.
- Review blood pressure goal against current reading(s).
- Have an open conversation about goals, achievements, confidence, and barriers. See sidebar for some examples.
- Help set small, achievable goals based on patients’ answers. For example, if the patient is working to improve diet, establish a goal to swap out favorite food items for lower-sodium versions. This can build over time to more heart-healthy meals, cooked at home.
- Use the “Ask-Tell-Ask” technique to address actions for each behavioral goal:
  - Ask** permission to provide information on a specific topic. For example, for medication adherence, you might say, “There are several things I want to tell you about your new medication. Is that okay?”
  - Tell** the patient what they need to know (e.g., when they should take the medication, expected side effects, importance of taking it as directed). Use simple words and diagrams or pictures.
  - Ask** the patient to repeat back the information in his or her own words.
- Provide the patient with the following tools:
  - Blood pressure tracker** with target numbers written prominently
  - Home blood pressure monitoring instructions—**review this helpful guide**
  - Healthy diet information
  - Community options for exercising
  - Support groups to join
- Remind the patient to record blood pressure readings between office visits and share with the team by phone, fax, or e-mail as well as at the next office visit.

## Tools and Resources

- ▶ **American Medical Group Foundation’s Provider Toolkit to Improve Hypertension Control** includes printable assessments for patients around goal-setting and assessing self-management knowledge (see pages 49 and 51).
- ▶ **California Health Care Foundation’s Helping Patients Manage Their Chronic Conditions** guide further discusses the “Ask-Tell-Ask” approach as well as motivational interviewing and goal-setting.
- ▶ Visit the **Million Hearts®** website for more information and resources for helping patients control hypertension.

# High Blood Pressure

## How to Make Control Your Goal



### Did you know?

Of the 67 million American adults who have high blood pressure, 16 million know they have the condition and are receiving treatment, but their blood pressure still remains too high.

**It's up to you** to successfully manage and control your blood pressure. But it doesn't have to be a daunting task. You can take small, manageable steps to make blood pressure control **your** goal. Here are some tips to show you how.

### Engage your health care team

Blood pressure control is a team effort. Engage all of your health care professionals—not just your primary care physician or cardiologist. Your pharmacist, nurses, and other health care specialists can help you control your high blood pressure.

Next time you go in for a visit, make a list of questions you want to ask your health care professional. For example:

- ▶ What is my blood pressure goal?
- ▶ What are the best ways to reach my goal?
  - ▷ Mention what you're already doing to work toward control, including exercising, changing your diet, or taking medications as prescribed.
  - ▷ Be honest and realistic with yourself and your health care team about what lifestyle changes you're ready to make and the ones you're not quite ready for.
  - ▷ Pick one goal to start working toward. As you achieve success and build confidence, choose another goal to tackle.

### Take your medications faithfully

Your health care team has put together a specific medication schedule to help control your blood pressure. You might forget to take your medicine every day, or maybe you're having trouble dealing with the side effects. Remember that your medication is important to control and maintain your blood pressure.

Here are some tips to help you stick with your medication plan:

- ▶ Talk to your doctor about any side effects you experience with your medications. If necessary, discuss other treatment options. **Never stop treatment on your own.**
- ▶ Make a schedule and set up a system to remind you to take your medications regularly—use a pillbox for every pill, every day, or use smartphone “app” reminders.
  - ▷ If your insurance provides mail order delivery, set it up and request a 90-day supply of medications.
  - ▷ If this service is not available, schedule all your refills at the same pharmacy at the same time each month so you can pick them up all at once.



## Don's Story

As an avid runner, Don thought he was great shape. When he was diagnosed with high blood pressure during a routine physical exam more than 30 years ago, Don was frustrated. High blood pressure is a common condition among men in his family. Don's grandfather, father, and two younger brothers all had high blood pressure. Because he knew he couldn't control his family history, Don focused on what he could control.

Don committed to understanding his condition and working with his health care team to improve diet, exercise more, and manage stress. Because of his busy work schedule as a veterinarian and his limited cooking skills, Don's wife supports his efforts by preparing healthy meals with low sodium. No longer able to run marathons, Don walks several times a day with his 15-year-old dog, Sophie. To help relax, Don meditates every day. He also volunteers at a local hospice and shares his love for animals by instructing and evaluating animal assisted therapy volunteers and working with two animal outreach groups.

Don knows that he plays the most important role in controlling his high blood pressure; that's why he's made control his goal. He works closely with his health care team and has a strong support system in his family and colleagues.

## Monitor your blood pressure

What's your blood pressure goal? Develop a plan to regularly check your blood pressure, not just at the doctor's office, but at home or at a pharmacy. Track your results in a log or diary to monitor your progress.

## Make healthy choices

- ▶ Exercise can be a great way to help control your blood pressure. Find a safe place to walk or be more active. Increase the time and intensity of your physical activity as you progress.
- ▶ Shop for more fresh fruit, vegetables, and whole grains and fewer prepared foods with high sodium, cholesterol, saturated fat, and trans fat.
- ▶ Learn to read labels and choose foods lower in sodium. Lowering your sodium will lower your blood pressure.
- ▶ Quit smoking. There are many tools available to help you. Call 1-800-QUIT-NOW or visit [Smokefree.gov](http://Smokefree.gov) for help.

## Tools and resources

Million Hearts®, in partnership with the American Heart Association/American Stroke Association, has developed online tools to help you track and manage your heart health, including your blood pressure, and provide helpful advice and information. Check out:

- ▶ [Heart360®](#)
- ▶ [My Life Check®](#)

**Find and download additional materials** to help control your high blood pressure at the [Million Hearts®](#) website.

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# Presión arterial alta

## Cómo hacer que controlarla sea su meta



### ¿Sabía usted que...?

De los 67 millones de estadounidenses adultos que tienen presión arterial alta, 16 millones saben que tienen este problema y reciben tratamiento, pero su presión arterial sigue estando demasiado alta.

Una encuesta reciente de los Centros para el Control y la Prevención de Enfermedades descubrió que más de la cuarta parte (26.1 %) de la población hispana informó tener presión alta.

Casi el 30 % de aquellos con presión arterial alta no tomaba los medicamentos que podrían reducir su riesgo de tener un ataque cardíaco o un accidente cerebrovascular.

**De usted depende** mantener su presión arterial alta bajo control, pero no tiene por qué ser una tarea abrumadora. Puede dar pasos pequeños y fáciles de manejar para que controlar su presión arterial se convierta en **su** meta. Aquí le ofrecemos algunos consejos para lograrlo.

### Involucre a todos los profesionales de la salud que lo atienden

Controlar la presión arterial es un trabajo de equipo. Involucre a todos los profesionales de la salud que lo atienden (no solo a su médico de cabecera o cardiólogo). El farmacéutico, el cardiólogo, el personal de enfermería y los demás especialistas de la salud pueden ayudarlo a controlar la presión arterial alta.

La próxima vez que vaya al médico, lleve una lista con las preguntas que quiera hacerle al profesional de la salud. Por ejemplo:

- ▶ ¿Qué presión arterial debo aspirar a tener?
- ▶ ¿Cuáles son las mejores maneras de alcanzar esa meta?
  - ▷ Cuénteles lo que ya está haciendo con el fin de tener la presión arterial bajo control, como hacer ejercicio, cambiar su alimentación o tomar medicamentos según se lo hayan indicado.
  - ▷ Sea honesto y realista con usted mismo y con el equipo de profesionales de la salud acerca de los cambios en el estilo de vida que está preparado para hacer y los que todavía no está preparado para hacer.
  - ▷ Fíjese una meta y comience a trabajar para alcanzarla. Cuando logre alcanzarla y tenga más confianza en sus capacidades, fíjese otra meta.

### Tome los medicamentos sistemáticamente

El equipo de profesionales a cargo de su salud ha elaborado un plan de medicamentos específico, para ayudarlo a controlar su presión arterial. Si bien quizás no recuerde tomar los medicamentos todos los días o, tal vez, los efectos secundarios le causen dificultades, recuerde que los medicamentos son importantes para controlar la presión arterial y mantenerla en los niveles deseados.

Estos son algunos consejos que lo ayudarán a cumplir con su plan de medicamentos:

- ▶ Hable con su médico acerca de los efectos secundarios que tenga debido a los medicamentos. De ser necesario, hablen sobre otras opciones de tratamiento.

**Nunca abandone el tratamiento por su cuenta.**



## La historia de Estela

Estela se sentía mareada y débil, tenía dolores de cabeza constantes y, frecuentemente, no tenía apetito. Como sus síntomas le preocupaban cada vez más, programó una visita al médico. Durante la visita, el médico le diagnosticó presión arterial alta. Eso ocurrió hace 34 años. Desde entonces, ha hecho cambios en su estilo de vida para controlar su afección.

La primera prioridad de Estela fue cambiar su alimentación. Dejó de comer alimentos fritos y evitó el consumo de sal. A los 74 años, Estela lleva una vida activa y disfruta de hacer caminatas y pasar tiempo con sus nietos. Su familia juega un papel importante en ayudarla a mantener su presión arterial bajo control. La ayudan a preparar comidas saludables, le recuerdan que tome los medicamentos y la acompañan a las visitas médicas. Estela se atiende con el mismo médico desde hace más de 25 años, por lo que confía en la relación que tienen y le gusta que los dos trabajen juntos para controlar su presión arterial alta. Estela —con el apoyo de su familia y su médico— convirtió al control de la presión arterial en su meta y lleva una vida más feliz y más sana.

- ▶ Haga un cronograma y establezca un sistema para recordar tomar los medicamentos regularmente, por ejemplo, utilizar un pastillero para colocar todas las píldoras de cada día o usar una aplicación en el teléfono inteligente que le recuerde que debe tomar los medicamentos.
- ▷ Si su seguro de salud le ofrece el servicio de entrega por correo, utilícelo y pida que le envíen medicamentos para 90 días.
- ▷ Si no tuviera este servicio disponible, pida que le entreguen todos los medicamentos el mismo día del mes en una sola farmacia para poder recogerlos todos juntos.

## Vigile su presión arterial

¿Qué presión arterial aspira a tener? Prepare un plan para tomar la presión arterial regularmente, no solo en el consultorio del médico, sino también en su casa o en la farmacia. Lleve un diario o registro de los resultados para así vigilar su progreso.

## Elija opciones saludables

- ▶ El ejercicio puede ser una excelente manera de ayudar a controlar la presión arterial. Busque un lugar seguro donde pueda caminar o hacer actividad física. Aumente la duración y la intensidad de la actividad física a medida que vayan progresando.
- ▶ Compre más frutas y verduras frescas y granos enteros, y menos alimentos preparados con alto contenido de sodio, colesterol, grasas saturadas y grasas *trans*.
- ▶ Aprenda a leer las etiquetas y elija los alimentos que tengan menos sodio. Reducir el sodio reducirá también la presión arterial.
- ▶ Deje de fumar. Hay muchas herramientas disponibles para ayudarlo a dejar de fumar. Llame al 1-855-DÉJELO-YA (seleccione la opción 2 para hablar con un representante en español) o visite **smokefreeespañol** para recibir asistencia.

**Encuentre y descargue otros materiales** que lo ayudarán a controlar la presión alta en el sitio web **Million Hearts® en español**.

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# Supporting Your Loved One with High Blood Pressure



Set a reminder to get your loved one's blood pressure checked—at home, at the doctor's office, or at a pharmacy. Track results in a journal or diary that your loved one can take to health care visits.

**Having the support of a friend or family member** sometimes is the deciding factor for an individual struggling to manage and control high blood pressure successfully. You can make a difference.

Of the 67 million American adults who have high blood pressure, 16 million are aware they have the condition and are receiving treatment, but their blood pressure continues to be high. If this sounds like someone you know and love, team up to help him or her to make blood pressure control **your** goal, too.

Here are tips on how you can help:

## Start the conversation

Find out what your loved one is already doing to control their high blood pressure and what you can do to support them immediately. Ask questions like:

- ▶ What is hardest for you about controlling your high blood pressure?
- ▶ What is easiest?
- ▶ Have you set specific goals with your health care team?
- ▶ What can I do to help you? This might include: go with you to health care visits; help you monitor your blood pressure; remind you to take your medications; work together to cook low-sodium meals.

## Provide emotional support

- ▶ Be positive. Help your loved one remember that this is a marathon, not a sprint, and that control is possible.
- ▶ If you are concerned about your loved one, ask him or her questions.
- ▶ Don't forget to take care of yourself. As a family member or friend taking care of a loved one with high blood pressure, you may experience periods of stress, anxiety, depression, and frustration. Remember, taking care of your own emotional health and physical needs helps you take care of your loved one.



## Make control *your* goal

Take action to help your loved one make healthy lifestyle changes for better blood pressure control. For example, you can:

- ▶ Help your loved one set up a routine to take medications regularly.
  - ▷ If your loved one's insurance provides mail order delivery, set it up and request a 90-day supply of medications.
  - ▷ If this service is not available, pick a convenient pharmacy to get all of the medications. Request that refills occur at the same time each month so your loved one can pick them all up at once.
  - ▷ Start a reminder system. Use a pillbox for every pill, every day. Or find and use a smartphone app.
- ▶ Set a reminder to get your loved one's blood pressure checked—at home, at the doctor's office, or at a pharmacy. Track results in a journal or diary that your loved one can take to health care visits.
- ▶ Help your loved one eat better.
  - ▷ Go grocery shopping together. Focus on more fresh fruit, vegetables, and whole grains and fewer prepared foods that have high sodium, cholesterol, saturated fat, and trans fat.
  - ▷ Help cook healthy, tasty meals at home more often. Bring home-cooked meals to your loved one.
- ▶ If your loved one smokes, help him or her quit.
  - ▷ Help your loved one identify reasons to quit.
  - ▷ Learn about and improve upon your loved one's previous attempts to quit.
  - ▷ Suggest a quit line like 1-800-QUIT-NOW.
- ▶ Be more active with your loved one.
  - ▷ Schedule easy exercises into your daily or weekly get-togethers—even just a walk around the block is enough to get the ball rolling.
  - ▷ Keep track of your daily and weekly physical activity by using a log or diary.
  - ▷ Increase the time and intensity of your physical activity gradually as you progress.

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**Find and download additional materials** to support loved ones in controlling high blood pressure at the **Million Hearts®** website.

Be positive. Help your loved one remember that this is a marathon, not a sprint, and that control is possible.

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# Cómo apoyar a un ser querido con Presión arterial alta



En una reciente encuesta de los Centros para el Control y la Prevención de Enfermedades, más de un cuarto (26.1 %) de los hispanos reportó tener presión arterial alta. Casi el 30 % de aquellos con presión arterial alta no estaba tomando medicamentos que podrían reducir su riesgo de tener un ataque cardíaco o un accidente cerebrovascular.

**Contar con el apoyo de un amigo o familiar** es a veces el factor decisivo para alguien que lucha por manejar y controlar su presión arterial alta. Usted puede ayudar.

De los 67 millones de adultos con presión arterial alta en los Estados Unidos, 16 millones saben que tienen esta afección y están recibiendo tratamiento, pero siguen teniendo la presión alta. Si esto le recuerda a algún ser querido o a alguien que usted conoce, póngase de su lado y haga que el control de la presión arterial también sea **su** meta.

A continuación hay algunos consejos sobre cómo puede ayudar:

## Inicie la conversación

Averigüe qué está haciendo su ser querido para controlar la presión arterial alta y qué puede hacer usted para apoyarlo inmediatamente. Haga preguntas como las siguientes:

- ▶ ¿Qué es lo que te resulta más difícil para controlar la presión arterial alta?
- ▶ ¿Qué es lo más fácil?
- ▶ ¿Has establecido metas específicas con tu equipo de salud?
- ▶ ¿En qué te puedo ayudar? (Esto puede incluir acompañarte a las citas médicas, ayudarte a tomar la presión arterial, recordarte que te tomes los medicamentos, cocinar juntos comidas con bajo contenido de sodio).

## Dé apoyo emocional

- ▶ Sea positivo; ayude a su ser querido a recordar que esto es una maratón, no una carrera, y que es posible controlar la presión arterial alta.
- ▶ Si está preocupado por su ser querido, hágale preguntas.
- ▶ Recuerde que usted también tiene que cuidarse. Al cuidar a un familiar o a un amigo con presión arterial alta, usted puede pasar por periodos de estrés, ansiedad, depresión y frustración. Recuerde que prestar atención a su propia salud emocional y atender sus propias necesidades físicas lo ayudan a cuidar a su ser querido.

Haga que el control sea **su** meta



**Sea positivo; ayude a su ser querido a recordar que esto es una maratón, no una carrera, y que es posible controlar la presión arterial alta.**

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## Haga que el control sea *su* meta

Tome medidas para ayudar a su ser querido a hacer cambios saludables en su estilo de vida para controlar mejor la presión arterial. Por ejemplo, usted puede:

- ▶ Ayudar a su ser querido a establecer una rutina para que se tome sus medicamentos con regularidad.
  - ▷ Si el seguro médico de su ser querido ofrece entrega a domicilio, programe el envío y pida que le manden medicamentos para 90 días.
  - ▷ Si este servicio no está disponible, escoja una farmacia que quede cerca para conseguir todos los medicamentos. Pida que le entreguen los surtidos en la misma fecha, cada mes, para que se puedan recoger todos al mismo tiempo.
  - ▷ Establezca un sistema recordatorio: use un pastillero para cada pastilla, todos los días, o busque y use una aplicación (app) para el teléfono inteligente.
- ▶ Hacerse un recordatorio para que a su ser querido le tomen la presión arterial en su casa, en el consultorio del médico o en una farmacia. Anote los resultados en un diario o cuaderno que su ser querido pueda llevar a las citas médicas.
- ▶ Ayudar a su ser querido a alimentarse mejor.
  - ▷ Vayan al juntos al supermercado. Compre más frutas frescas, verduras y cereales integrales, y menos comidas preparadas que tienen altos niveles de sodio, colesterol, grasas saturadas y grasas trans.
  - ▷ Ayude a cocinar en casa comidas sanas y sabrosas con más frecuencia. Llévelo a su ser querido comidas hechas en casa.
- ▶ Ayudar a su ser querido a dejar de fumar.
  - ▷ Ayúdelo a encontrar razones para dejar de fumar.
  - ▷ Infórmese sobre los intentos que ha hecho su ser querido para dejar de fumar y trate de hacer cosas que puedan funcionar mejor.
  - ▷ Recomiéndele que llame a una línea telefónica de ayuda para dejar de fumar como 1-855-DÉJELO-YA. Seleccione la opción 2 para hablar con un representante en español.
- ▶ Ser más activo con su ser querido.
  - ▷ Programe hacer ejercicios fáciles cuando se vean diariamente o cada semana. Incluso salir a caminar alrededor de la cuadra es suficiente para empezar.
  - ▷ Lleve un registro diario y semanal de la actividad física en un cuaderno o diario.
  - ▷ Aumente gradualmente la duración e intensidad de la actividad física a medida que vayan avanzando.

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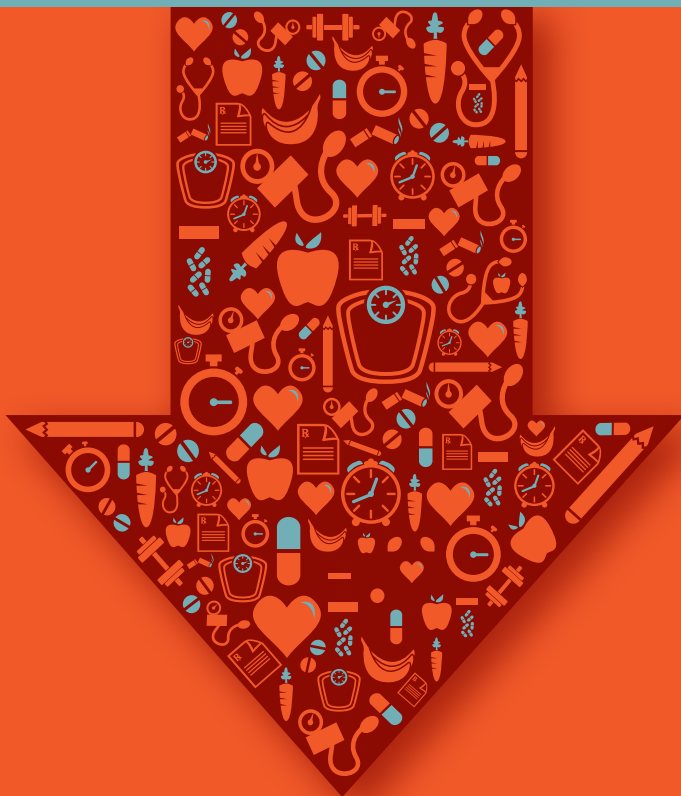
**Encuentre y descargue materiales adicionales** para ayudar a su ser querido a controlar la presión arterial alta en el sitio web **Million Hearts® en español.**

# Patient Handouts





A JOURNAL TO HELP YOU  
MANAGE HIGH BLOOD PRESSURE







**Blood pressure can be controlled.  
Make it a team effort.**

High blood pressure, also called hypertension, raises your risk of heart disease, stroke, and other serious conditions. So it's very important to take the medication your doctor has prescribed. Those are the first steps to getting your high blood pressure under control.

You also need the support of family, friends, and health care professionals, such as your pharmacist. Your pharmacist can help answer questions about high blood pressure, your medications, and offer tips to help you maintain a healthy blood pressure.

With the help of this journal, you'll learn how you can manage and control your high blood pressure. You will also learn what questions to ask your pharmacist or doctor if you are worried about your condition or medication. And, you'll get tips on healthy habits that can help save your life. Use this journal on a daily basis to help you reach your blood pressure and health goals.

**So team up with your pharmacist, doctor, and loved ones to get—and keep—your high blood pressure down.**

A close-up photograph of a person's hands forming a heart shape. The person is wearing a red shirt. The background is a soft, out-of-focus grey. The hands are positioned in the center of the frame, with the fingers pointing towards the center to create the heart's outline. A semi-transparent red heart is overlaid on the hands.

## What is high blood pressure? Is it *really* that bad?

If you have high blood pressure, you're not alone. About 67 million U.S. adults have high blood pressure. Nearly half do not have it under control. High blood pressure, a common cause of heart attack and stroke, contributes to nearly 1,000 deaths a day.

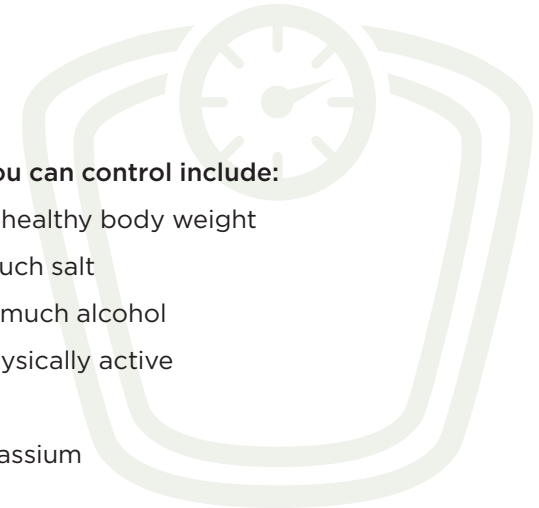
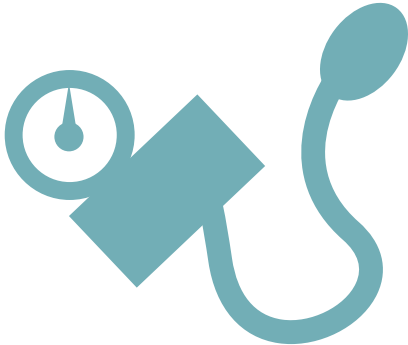
"Blood pressure" measures the force of your blood pushing against the walls of your arteries. Your blood pressure naturally goes up and down throughout the day. If it remains high for a long time, you could have high blood pressure.

High blood pressure is unsafe because it makes your heart work harder to pump blood. This can cause damage to the arteries and makes you more likely to experience a heart attack or stroke.

## What causes high blood pressure?

The causes of high blood pressure vary from person to person. Risk factors, such as certain traits, conditions, and habits, can raise your risk. There are two types of risk factors: those you can control and those you cannot control.

For some people, certain medical conditions and medications can cause or add to the risk. For others, habits such as smoking or drinking too much alcohol may cause high blood pressure.



### Risk factors you can control include:

- ▼ Being over a healthy body weight
- ▼ Eating too much salt
- ▼ Drinking too much alcohol
- ▼ Not being physically active
- ▼ Smoking
- ▼ Too little potassium
- ▼ Diabetes
- ▼ Stress

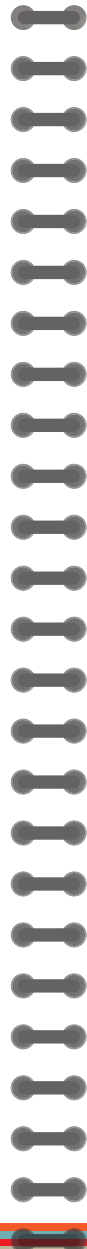
### Risk factors you cannot control include:

- ▼ **Age.** Blood pressure tends to rise as people get older.
- ▼ **Race/ethnicity.** High blood pressure is more common among African Americans than Caucasians or Hispanic-American adults.
- ▼ **Gender.** Fewer adult women have high blood pressure than adult men.
- ▼ **Family history.** You are more likely to have high blood pressure if someone in your family has it.

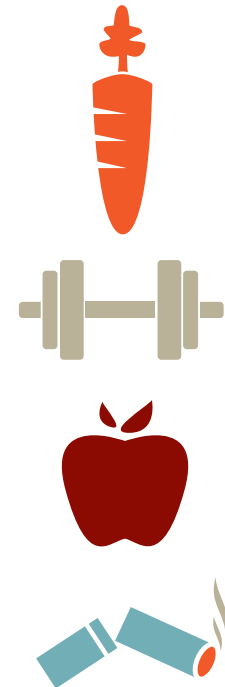
## What are the signs of high blood pressure?

High blood pressure is also called the “silent killer,” because many people have it for years and don’t know it. Often, high blood pressure has no warning signs. By the time it is noticed, it may have already caused serious damage to the heart, blood vessels, and more.

The good news is, when discovered early, high blood pressure can be treated and controlled.



Lifestyle changes can help lower and maintain a healthy blood pressure. Staying on a healthy diet, being physically active, keeping a healthy weight, and not smoking can help you stop or delay problems related to high blood pressure. Keep in mind, the more risk factors you have, the more likely you are to get high blood pressure.

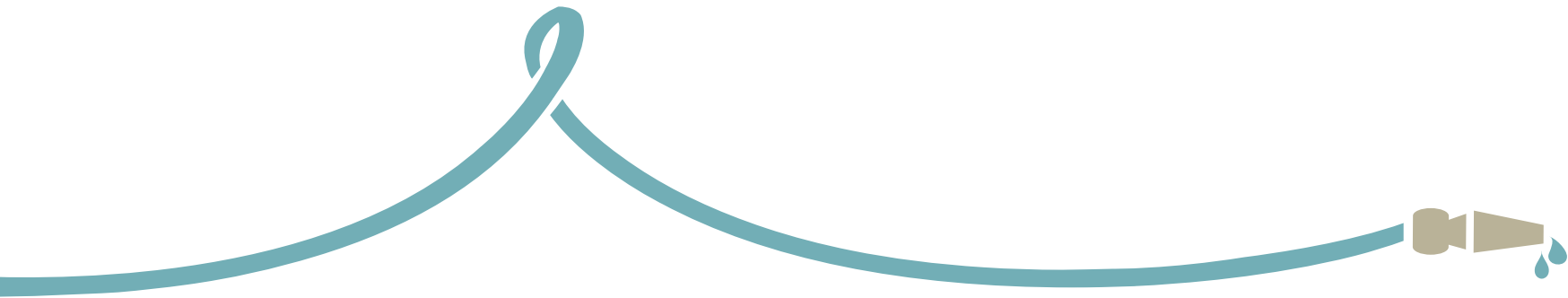




## How is high blood pressure measured?

When you get your blood pressure taken by a professional, it's helpful to know what is being measured. You should also know what it means for your health and how you can track your blood pressure regularly.

Blood pressure is when the heart fills up with blood and then squeezes to push the blood into the blood vessels. Your blood pressure is made up of two numbers—systolic pressure and diastolic pressure. The systolic pressure measures the total pressure it takes the heart to pump blood to the body. When the heart relaxes between beats and fills again with blood, this is diastolic pressure. Blood pressure numbers are written with the systolic number above or before the diastolic number, such as 140/90 mmHg. It is usually measured in millimeters of mercury (mmHg).



Work with your pharmacist or doctor to learn what your numbers mean for your health. Depending on your starting level of systolic blood pressure you can, lower your risk of heart attack or stroke by bringing that number down by at least 5mmHg.

**To help you picture how blood pressure works, think of water running through a garden hose.**

The hose is your blood vessels, and the water running through it is your blood. Just as you need plenty of water to grow your garden, your cells need enough blood to circulate in your body to carry oxygen and other things the body needs to stay alive. If you were to turn on the water to your garden hose, you would see it flow freely from one end to the other.

Now, if you were to narrow the flow of water by squeezing or stepping on the hose, the water pressure would build up. The faucet has to “work harder” to get the water through the hose to your garden. This causes extra stress on the faucet, which could cause it to leak or break and not work correctly. Similarly, if you have high blood pressure, it is like squeezing the garden hose. This makes your heart work harder to pump blood and your blood pressure rises. The extra work your heart has to do can cause stress on your heart and lead to a heart attack or stroke.

## Who takes my blood pressure?

Taking your blood pressure is easy and painless. Your doctor or nurse will take it each time you visit—and maybe more than once. It is also important for you to regularly monitor your blood pressure. Many pharmacies have blood pressure machines where you can test yourself. You can also buy an easy-to-use blood pressure monitor from your drug store to use at home. To get the best picture of your blood pressure, measure it twice a day for at least a week. Take it once in the morning before you take any medications, and again in the evening.



It's important to take the readings at the same time each day, because your blood pressure changes during the day, and tends to rise when you are excited, nervous, or active. Here are a few steps you can take to make sure your blood pressure reading is correct:

- ▼ Don't drink coffee or smoke cigarettes for at least 30 minutes before the test. Doing either can cause a brief rise in blood pressure. Keep in mind, smoking is a common cause of high blood pressure. If you do smoke, there are steps you can take to quit. Visit <http://millionhearts.hhs.gov> for tips and resources.
- ▼ Be sure to go to the bathroom before the test. A full bladder can affect your blood pressure reading.
- ▼ Sit quietly for five minutes before the test. Movement can cause a brief rise in blood pressure.







## How is high blood pressure controlled?

For some people, making healthy changes in their lives can help lower blood pressure. For others, medication may be needed as well. If your doctor gives you one or more medications as part of a treatment plan, be sure to take them as directed.

**Awareness and treatment are the best chances you have to control your high blood pressure and avoid a heart attack or stroke. Work with your pharmacist and doctor to make a plan that works best for you.**



## Your pharmacist can help you manage your high blood pressure.

Did you know that your pharmacist can answer your general high blood pressure questions, and even help you take your blood pressure? Your pharmacist is not only trained to fill your prescriptions, but can help you better understand your condition and the medications you are taking.

If you are starting medication for the first time or if your treatment has changed, talk to your pharmacist. Here are some questions you may want to ask:



- ▼ What is the name of my medication? Is that the brand name or generic name?

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- ▼ What is the dosage of the medication? Are there any special instructions? How will it react in my body?

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- ▼ Can this medication be taken with other prescription and nonprescription medications?

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- ▼ Should this medication be taken with or without food? Are there any foods or drinks to stay away from when taking this medications?

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- ▼ What should I do if I take too much or miss a dose of this medication?

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- ▼ What side effects should I watch for? If I contact you about possible side effects will you share that information with my doctor or do I need to contact my doctor separately?

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- ▼ Should I make sure to stay away from certain activities while taking this medication?

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- ▼ What time of day should I take my medication?

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- ▼ Are there any other things (such as blood pressure cuffs, pain medication, or vitamins) that may help me manage my blood pressure?

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- ▼ What can I do if I lose or run out of medication?

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- ▼ Where can I find out more about this drug(s) or my condition (on the Internet or in health and medical articles)?

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- ▼ Where on my pill bottle can I find the above information?

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## Taking your medications as directed.

There are many reasons why you may not take your medications as prescribed, but remember it is very important to follow your doctor's directions. Ask your pharmacist to remind you what your doctor told you about your prescription. Not taking your medicines as prescribed can have a serious impact on your overall health. If you are concerned about bad reactions or side effects, the high cost, or are overwhelmed by the number of medicines you have to take, talk with your pharmacist. He/she can discuss them with your doctor and together they might suggest:

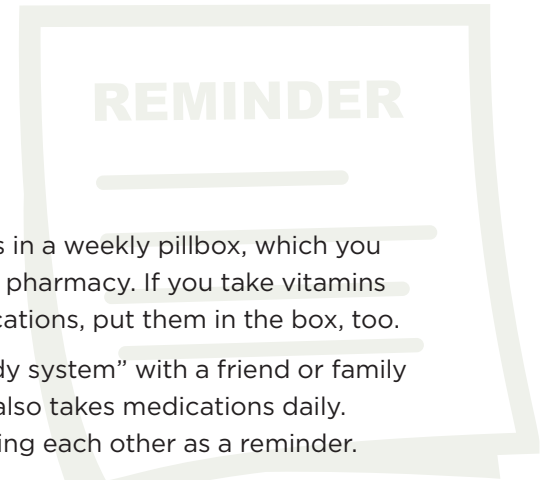
- ▼ Other prescription medications or over-the-counter treatments that may have fewer side effects.

- ▼ Ways to simplify your daily medication routine to cut down on the number of times a day and/or medications you take.
- ▼ Generic medications available at a lower cost, or recommend a prescription assistance program to help you afford your medication.

## What if I miss a day of taking my medications?

In general, missing one day isn't serious. Ask your pharmacist what to do if that happens. Of course, it's best to take your medicine(s) regularly and as prescribed. Here are some helpful ways to remind yourself:

- ▼ Keep your medications somewhere that you will see them—on the nightstand or next to your toothbrush.
- ▼ Take them at the same time(s) every day, and connect them with established routines like brushing your teeth.
- ▼ Put “sticky notes” on the refrigerator, bathroom mirror, or front door.



- ▼ Place your pills in a weekly pillbox, which you can find at the pharmacy. If you take vitamins or other medications, put them in the box, too.
- ▼ Set up a “buddy system” with a friend or family member who also takes medications daily. Take turns calling each other as a reminder.
- ▼ If you have a computer or cell phone, set a reminder or sign up for a free service that will send you a daily reminder e-mail.
- ▼ Remember to refill your prescriptions. Make a note to order more medication one week before you run out.
- ▼ Ask your pharmacy if they have an automatic refill service or if they can call and remind you when refills are due.
- ▼ If you are going on a trip, count out the number of pills you'll need to make sure you have enough. Make sure you take the original labeled containers with you, in case you need to tell someone about the medications you're taking.



## Are there natural ways to control blood pressure?

Medication is not and should not be the only way of managing high blood pressure. Lifestyle changes play a big part in controlling blood pressure—especially when combined with medication. Team up with your loved one and engage in healthy activities to reduce blood pressure. Here's what you can do:

- ▼ **Enjoy a healthy diet.** Include plenty of fruits, vegetables, whole grains, low-fat dairy, fish, lean meats and poultry. Also make sure to get plenty of potassium. Bananas, orange juice, raisins, and baked potatoes are rich in potassium.
- ▼ **Eat a low-sodium diet.** Sodium (salt) raises blood pressure by keeping fluid in the body. Look carefully at the labels of processed foods (canned soups and frozen dinners), which are often very high in sodium. If you are 51 or older, limit sodium to 1,500 milligrams a day or less.
- ▼ **Keep your weight down.** Losing even five pounds can lower blood pressure.

- ▼ **Get moving.** Being active helps control weight and contributes to better circulation. Take quick-paced walks around the neighborhood or mall to be sure you're getting at least 2 hours and 30 minutes of exercise each week.
- ▼ **Limit alcohol.** No more than one drink a day for women and two drinks a day for men.
- ▼ **Don't smoke.** If you do, consider quitting.
- ▼ **Manage stress.** Learn muscle relaxation and deep-breathing skills, and get plenty of sleep.

## Remember to “team up, pressure down.”

Through medication, healthy life changes, and working closely with your health care team, you can get—and keep—your blood pressure under control. That's a message to take to heart.





## Glossary

Here are some commonly used terms that relate to high blood pressure and/or your medication.

**Atherosclerosis:** The hardening and narrowing of the arteries. This can block arteries and limit blood flow.

**Cardiovascular disease:** Refers to conditions that involve narrowed or blocked blood vessels. It can result in a heart attack, chest pain, or stroke.

**Blood pressure monitor:** A device used to measure blood pressure. It consists of an arm cuff, dial, pump, and valve.

**Diastolic blood pressure:** The pressure of blood in the blood vessels when the heart is relaxed between beats. It is the “bottom number” in a blood pressure reading. For example, if your blood pressure is 140 over 90 or 140/90, the diastolic measurement is 90.

**Heart attack:** Damage to the heart muscle from lack of blood flow for a long time.

**Heart disease:** The broad term that refers to several different types of heart conditions.

**Hypertension:** High blood pressure.

**Stroke:** Damage to brain tissue from a cutoff of the blood supply in the brain. The lack of blood can be caused by clots that block blood flow, or by bleeding in the brain from a burst blood vessel or a major injury.

**Systolic blood pressure:** The pressure of blood in the blood vessels when the heart beats or squeezes blood into the vessels. It is the “top number” in a blood pressure reading. For example, if your blood pressure is 140 over 90 or 140/90, the systolic measurement is 140.





## **Team up with a spouse or loved one to help bring your blood pressure down.**

You're working with your doctor and pharmacist to take care of your blood pressure. But there is a key third member to your health care team: your spouse or other loved one. This person can help you with the day to day support needed to help you manage your condition, medications, and lifestyle changes.

So take out this page from your journal and have an honest talk with your team member. You can discuss the kind of support you can give each other.

**Learn more how you can help at  
<http://millionhearts.hhs.gov>**



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## Team up to help keep your loved one's blood pressure down.

Your loved one needs your support to help manage his/her high blood pressure (also called hypertension). If left uncontrolled, it can lead to more serious issues including a potentially fatal heart attack or stroke. Here are some ways you can be part of the team:

- ▼ Help your loved one remember to take his/her high blood pressure medications as directed by the doctor. Work with him/her to set up a schedule or routine. This will help ensure medications are taken as prescribed and doses are not missed.
- ▼ If needed, help keep track of doctors' visits and prescription refill dates.
- ▼ Help your loved one regularly check his/her blood pressure. There are blood pressure machines in the pharmacy or grocery store that are free to customers. There are also at-home monitors for purchase that allow your loved one to keep track of their numbers between visits to the doctor or pharmacist. Help your loved one take readings at the same time each day, such as morning and evening. Encourage him/her to track the readings in the journal and speak with the pharmacist or doctor if his/her blood pressure is high. The pharmacist or doctor can recommend or make changes to his/her treatment.

- ▼ Help your loved one with important lifestyle habits such as maintaining a healthy weight. This will help lower blood pressure and reduce risk for other health problems. Get ideas for how to encourage your loved one to engage in healthy activities in upcoming sections.
- ▼ Remember that as a spouse and/or loved one, you're a key team member and source of support. Use the space below to write down any notes from your discussion with the pharmacist, or any questions you might have for them during your next visit to the pharmacy:

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## Team up with the pharmacist.

The pharmacist is also an important member of your loved one's health care team. Talk with the pharmacist—he/she is there to help. Here are some tips on getting started:

- ▼ **Meet the pharmacist.** Go with your loved one to the pharmacy when a prescription is ready. Ask to speak to the pharmacist and let him/her know how you are part of your loved one's health care team.
- ▼ **Bring a list of medications.** Write down a list or bring all past and current medications your loved one takes. This includes prescriptions, over-the-counter medications, and vitamins used on a normal basis. Share this list with the pharmacist. Talk with the pharmacist about any possible side effects and to make sure the medications are safe to take with each other.
- ▼ **Ask questions.** The pharmacist is an expert on medications and how they work. Refer to page 21 of your loved one's journal for some questions to ask.

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Don't forget, you, your loved one, the doctor, and the pharmacist are all on the same team. The team that will help get—and keep—your loved one's blood pressure down.

Learn more how you can help at <http://millionhearts.hhs.gov>



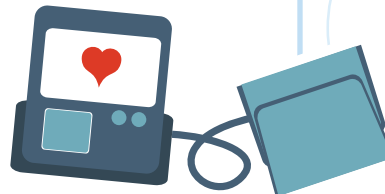
# DO YOU KNOW YOUR BLOOD PRESSURE (BP) NUMBERS?

## How to check your blood pressure



### STEP 1: Locate a BP Machine

If you don't have access to a quality home monitor, look for a kiosk at your local pharmacy, grocery store, or provider's office.



### STEP 2: Get seated and still

Sit quietly for five minutes before taking your BP. Place cuff directly on skin, keep both feet on the floor, back supported and relax while your BP is taken.



### STEP 3: Record your numbers and compare to the chart

If your blood pressure is high, work with your health-care professional to bring your blood pressure numbers down. High blood pressure can put you at serious risk for stroke and heart disease.

### HOW TO RECORD YOUR READING:

Systolic Pressure  
**117**  
Diastolic Pressure  
**76**

My Reading:



### IS IT RIGHT?

- If your reading is high, wait a few minutes and recheck
- Exercise, smoking and coffee may cause a rise in BP

Your provider will read this blood pressure as **"117 over 76"**

EVERY  
**20 POINT INCREASE**  
in systolic BP



**DOUBLES**  
RISK OF DEATH  
caused by stroke,  
heart disease, or  
other vascular  
disease



Improving HBP control means

**MORE LIVES CAN BE SAVED!**

## USE THE CHECK. CHANGE. *CONTROL*.® TRACKER TO TRACK YOUR BLOOD PRESSURE

Visit [www.ccctracker.com/aha](http://www.ccctracker.com/aha) to sign up. You'll need an email address and campaign code to create your account. Find the code on the map for your state. Tracking and working on healthier habits can lead to steady improvement.

# 3 STEPS FOR REACHING YOUR BLOOD PRESSURE GOALS

## 1 CHECK Your BP Numbers

Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	less than 120	and	less than 80
Elevated	120-129	and	less than 80
High Blood Pressure (Hypertension) Stage 1	130-139	or	80-89
High Blood Pressure (Hypertension) Stage 2	140 or higher	or	90 or higher
Hypertensive crisis	higher than 180	and/or	higher than 120

### HIGH BLOOD PRESSURE / STAGE 1

\*Recommendations: 10-year heart disease and stroke risk assessment. If less than 10% risk, lifestyle changes, reassessed in 3-6 months. If higher, lifestyle changes and medication with monthly follow-ups until BP controlled.

### HIGH BLOOD PRESSURE / STAGE 2

\*Recommendations: Lifestyle changes and 2 different classes of medicine, with monthly follow-ups until BP is controlled.

**HYPERTENSIVE CRISIS** Consult your doctor immediately

\* Individual recommendations need to come from your doctor.

## 2 CHANGE & Recheck

- Commit to the process of improving your BP.
- Set small, achievable goals and watch your numbers improve.

## 3 CONTROL & Reach Your BP Goal

### KEY LIFESTYLE OPPORTUNITIES TO LOWER YOUR BLOOD PRESSURE:



**REDUCE WEIGHT**  
↓ 5 mm Hg



**PHYSICAL ACTIVITY**  
↓ 5-8 mm Hg



**ADOPT D.A.S.H. EATING PLAN**  
↓ 11 mm Hg



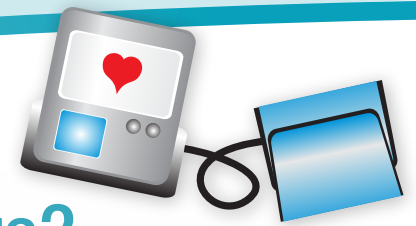
**MODERATION OF ALCOHOL CONSUMPTION**  
↓ 4 mm Hg








**LOWER SODIUM INTAKE**  
↓ 5-6 mm Hg

### OTHER TIPS FOR REACHING YOUR GOAL:

- Keep the longterm goal in mind: lower risks and a healthier life
- Get support from friends and family
- Celebrate each small change and improvement!



# What Can I Do To Improve My Blood Pressure?

Modification	Recommendation	Approximate SBP Reduction Range
 Weight reduction	Maintain normal body weight (BMI=18.5-24.9 kg/m <sup>2</sup> )	5 mm Hg
 DASH eating plan	Diet rich in fruits, vegetables, low fat dairy and reduced in fat	11 mm Hg
 Restrict sodium intake	<1500 mg of sodium per day	5-6 mm Hg
 Physical activity	Be more physically active. Aim for at least 90 to 150 minutes of aerobic exercise per week.	5-8 mm Hg
 Moderation of alcohol consumption	No more than 2 drinks/day for men and 1 drink/day for women	4 mm Hg

BP = Blood pressure, BMI = Body mass index, SBP = Systolic blood pressure, DASH = Dietary Approaches to Stop Hypertension

Ranges According to 2017 Hypertension Clinical Practice Guidelines  
Recommendations for Treatment and Management of Hypertension





## DID YOU KNOW?



### Link Between High Blood Pressure and Diabetes and Kidney Disease

- If you have diabetes and high blood pressure, your risk for a heart attack is higher.
- High blood pressure and kidney disease can contribute to a heart attack.

## Questions to Ask Your Pharmacist

- What is my medicine called, and what does it do?
- How and when should I take it? And for how long?
- What if I forget to take it?
- Are there any side effects?
- Is it safe to take with other medicines or vitamins?
- Can I stop taking it if I feel better?



## How to Take Your Blood Pressure with an Automatic Blood Pressure Machine

- Take your blood pressure at the same time every day, such as in the morning and at night.
- Don't smoke, drink caffeinated beverages or exercise within 30 minutes before measuring your blood pressure.
- Relax and sit with your arm slightly bent and resting comfortably on a table at the same level as your heart.
- Place the cuff securely on your upper arm (approximately one inch above your elbow). The cuff should be touching your skin.
- Follow the directions on the blood pressure machine to start the reading.
- Each time you take your blood pressure, do it two or three times, one minute apart, and write down all results.
- Share all results with your health care professional.

- List medicines here.
- Keep it up to date.
- Carry it with you.
- Share with your doctor/ pharmacist.
- Always take your medicine as directed.

For helpful tips and resources, visit **ScriptYourFuture.org** today.

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## QUESTIONS

to ask my doctor/pharmacist

1. What's my medicine called and what does it do?
2. How and when should I take it? And for how long?
3. What if I miss a dose?
4. Are there any side effects?
5. Is it safe to take it with other medicine or vitamins?
6. Can I stop taking it if I feel better?



I WILL

SIGN HERE

TAKE MY MEDS.



# High Blood Pressure

## What you need to know



You have the power to lower your blood pressure and live a healthy, full life. High blood pressure, which is also called hypertension, raises your risk for heart disease, stroke, kidney disease and eye damage.

### Eat less salt

Lower your blood pressure by eating less salt, which is called sodium on food labels. Eat no more than 2300 mg of sodium each day, which is less than a teaspoon. Less than 1500 mg a day is best.

Most of the sodium we eat comes from packaged or restaurant foods. You might be surprised at the large amounts in bread, packaged foods, cheese, processed meats and cold cuts, pasta dishes, sauces and salty snacks.

#### How to read a food label:

1. Look at the serving size and servings per container. This item has 2 servings.
2. Look at the mg of sodium. In this can, a 1 cup serving has 400mg of sodium. This whole can has 800mg of sodium.



### What do your blood pressure numbers mean?

**157 / 98**

#### Systolic—upper number:

The pressure when the heart squeezes to pump blood to the body

#### Diastolic—bottom number:

The pressure when the heart relaxes and fills with blood

BLOOD PRESSURE	SYSTOLIC	DIASTOLIC
Normal	Less than 120	Less than 80
Elevated blood pressure	120-129	
High blood pressure	130 or higher	80 or higher

Write your recent numbers here: \_\_\_\_ / \_\_\_\_

**IMPORTANT NOTE:** Always contact your nurse or doctor if your systolic pressure is above 180 or if your diastolic pressure is above 110.

### ✓ Check off the things you will do:

- Check food labels for sodium levels.
- Eat more fresh fruits and vegetables.
- Use herbs and spices instead of salt.
- Use water to rinse canned foods like vegetables, beans and tuna to remove salty liquid.
- For salads, choose oil and vinegar. When eating out, ask for dressing on the side.
- Choose reduced sodium, low sodium, light sodium, or sodium-free foods.

# High Blood Pressure

## What you need to know

### Check your blood pressure at home

Checking your blood pressure at home will help your nurse or doctor know if your numbers are normal or high. Ask your doctor or nurse to help you find a home blood pressure monitor. Don't use finger or wrist monitors.

The first time you take your blood pressure at home, do it on both arms. After that, use the arm that had the highest numbers.

#### How to check your blood pressure:

1. Use a cuff that fits your arm (example: adult, large, or extra large). Ask your doctor or nurse what size to use.
2. Rest for 5 minutes before you take your blood pressure.
3. Wait for at least 30 minutes after drinking alcohol or caffeine, smoking or exercising before you take a reading.
4. Sit with your legs uncrossed, your back supported, and your feet on the floor. Rest your arm at heart level on a table.
5. Take your blood pressure twice a day for 7 days. Save your numbers on the machine or write them down to show to your nurse or doctor.



### Learn about your medicines

Most people with high blood pressure need at least 2 medicines to lower their blood pressure to a healthy level.

Your doctor or nurse may need to change your medicines to find what works best for you. This is normal.



#### Check off the things you will do:

- Ask your doctor or nurse if there is a best time to take your medicines, like before or after a meal, in the morning, or at night.
- Always use a pill box, even if you only take one pill each day. Make sure your pill box is stored in a place where you can see it.
- Take your pills at the same time each day. Use a timer or alarm on your watch or phone as a reminder.
- Write down your medicines and always carry this list with you. Show it to your doctor or nurse at each visit.
- Write down on your calendar when you need to refill your medicine—at least 1-2 weeks before you run out.
- If you don't feel well after taking a medicine, call your doctor or nurse.
- Don't stop taking your medicines until you talk with your doctor or nurse.

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# Presión arterial alta

## Lo que usted necesita saber

### ¿Qué significan los números de su presión arterial?

**157 / 98**

**Sistólica—número de arriba:**

La presión que se produce cuando el corazón bombea sangre al resto del cuerpo.

**Diastólica—número de abajo:**

La presión que se produce cuando el corazón está en reposo y se está llenando de sangre.

PRESIÓN ARTERIAL	SISTÓLICA	DIASTÓLICA
Normal	Menos de 120	Menos de 80
Presión arterial elevada	120-129	
Presión arterial alta	130 o más	80 o más

Escriba aquí sus números recientes: \_\_\_\_ / \_\_\_\_

**NOTA IMPORTANTE:** Siempre comuníquese con su enfermero o su médico si su presión sistólica está por encima de 180 o si su presión diastólica está por encima de 110.



Tiene el poder de bajar su presión arterial y llevar una vida sana y plena. La presión arterial alta (también llamada hipertensión) aumenta su riesgo de tener ataque al corazón, ataque cerebral, problemas en los ojos y enfermedad de los riñones.

### Coma menos sal

Baje su presión arterial comiendo menos sal, que se llama sodio en las etiquetas de los alimentos. No coma más de 2,300 mg de sodio cada día, lo que es menos de una cucharadita. Lo mejor es comer menos de 1,500 mg al día.

La mayor parte del sodio que usted come viene de los alimentos procesados (empaquetados o envasados) y la comida de restaurante. Se sorprendería de ver las cantidades altas que hay en el pan, las comidas empaquetadas, el queso, las carnes procesadas y los cortes fríos, los platos con pasta, las salsas y los bocadillos salados.

#### Cómo leer la etiqueta de un alimento:

1. Observe el tamaño de la porción y la cantidad de porciones que vienen en el paquete. Este producto tiene dos porciones.
2. Observe la cantidad de sodio en mg. En esta lata, 1 porción de una taza tiene 400 mg de sodio. La lata entera contiene 800 mg de sodio.



### ✓ Marque las cosas que hará:

- Leer las etiquetas de los alimentos para conocer los niveles de sodio.
- Comeré más cantidad de frutas y vegetales frescos.
- Usaré hierbas y especias en lugar de sal.
- Usaré agua para enjuagar los alimentos enlatados tales como los vegetales, frijoles y atún para quitar el líquido salado.
- En el caso de las ensaladas, elegiré aceite y vinagre. Al comer fuera de casa, pediré los aderezos a un costado.
- Elegiré alimentos con menos sodio, bajos en sodio, menor contenido de sodio o sin sodio.

# Presión arterial alta

## Lo que usted necesita saber

### Mida su presión arterial en su casa

Medir su presión arterial en su casa ayudará a que su médico o enfermero sepa si sus números son normales o altos. Pida ayuda a su médico o enfermero para encontrar un monitor de la presión arterial para usar en su casa. No use un monitor de los que se colocan en el dedo o la muñeca.

La primera vez que se mida la presión arterial en su casa, hágalo en ambos brazos. Después de esa vez, use el brazo que tuvo los números más altos.

### Cómo medir su presión arterial:

1. Use un manguito que sea adecuado para su brazo (por ejemplo, de adulto, grande o extragrande). Pregúntele a su médico o enfermero qué tamaño debe usar.
2. Descanse 5 minutos antes de medirse la presión arterial.
3. Espere al menos 30 minutos después de beber alcohol o cafeína, fumar o hacer ejercicio antes de medir su presión arterial.
4. Siéntese sin cruzar las piernas, con la espalda apoyada y con los pies planos sobre el suelo. Apoye su brazo a la altura del corazón sobre una mesa.



### Obtenga información sobre sus medicamentos

La mayoría de las personas con presión arterial alta necesitan al menos dos medicamentos para mantener su presión arterial en un nivel saludable.

Es posible que su médico o enfermero necesite cambiar sus medicamentos para encontrar el que funciona mejor para usted. Eso es normal.



### Marque las cosas que hará:

- Pregúntele a su médico o enfermero si algún momento es mejor que otro para tomar sus medicamentos; por ejemplo, antes o después de una comida, por la mañana o por la noche.
- Use siempre un pastillero, aunque tome una sola pastilla al día. Asegúrese de dejar su pastillero en algún lugar donde pueda verlo.
- Tome sus pastillas a la misma hora todos los días. Establezca una alarma en su reloj o teléfono como recordatorio.
- Anote sus medicamentos y lleve esta lista siempre con usted. Muéstresela a su médico o enfermero en cada visita.
- Anote en su calendario cuándo necesita resurtir su medicamento: al menos entre una y dos semanas antes de quedarse sin medicamentos.
- Si no se siente bien después de tomar un medicamento, llame a su médico o enfermero.
- No deje de tomar sus medicamentos sin hablar primero con su médico o enfermero.

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