



# Blood Pressure Measurement Technique

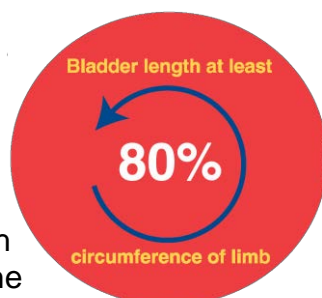
A QUICK GUIDE  
FOR SCREENERS

## 1. Correctly position patient

- Ideally, patient should sit and relax for 5 minutes prior to his or her first reading and instruct patients not to talk during the measurement
- Sit up straight with back supported. Keep both feet flat on the floor
- Support the arm on a table so that the center of the cuff is at the level of the heart
- Upper arm should be bare; **do not apply cuff over clothing**

## 2. Select proper cuff size and place on arm

- The length of the bladder in the cuff must encircle at least 80% of the upper arm (but not more than 100%) and the width should cover at least 40% of the circumference of the arm
- Locate the brachial artery
- On a bare arm, place the center of the bladder directly over the brachial artery
- The bottom edge of the cuff should be about 1" above the crease in the elbow



## 3. Estimate systolic blood pressure to determine how high to inflate the cuff

- Palpate (feel for) radial pulse
- While feeling the pulse and watching the manometer, inflate the cuff
- Note level where you no longer feel the pulse, then release air from the cuff rapidly
- Estimating the systolic blood pressure helps to determine how high to inflate the blood pressure cuff

## 4. Wait 30 seconds, then

- Place stethoscope in ears so that ear tips face forward
- Palpate or feel the brachial artery and place stethoscope (medial side of elbow). Do not allow scope to touch the cuff
- Use light pressure on the scope, as heavy pressure may cause you to hear sounds below the true diastolic pressure

## 5. Measure blood pressure

- Rapidly inflate cuff to a level 20-30 mm Hg above point where radial pulse had disappeared
- While deflating the cuff at a rate of 2-3 mm per second, listen for Korotkoff sounds
- Record the systolic as the first of 2 consecutive sounds. Recording the first single sound heard may result in recording a false pressure as sounds other than blood pressure can be heard through the stethoscope
- The Maine Cardiovascular Health Council offers blood pressure training at various times throughout the year. For more information, visit <http://mainecardiohealth.org>

## 6. When sound disappears

- The diastolic is recorded at the level where sound disappears. Continue to deflate the cuff slowly for another 10mm Hg
- If no further sounds are heard, rapidly release all air in the cuff and record the blood pressure



# SCREENING FOLLOW-UP, REFERRAL, AND EDUCATION

## Results and Follow-up

Range mm Hg		Recommended Follow-up
Systolic	Diastolic	
< 120	< 80	Target Range: Recheck in 2 years
120-139	80-90	Pre-hypertension: Recheck in 1 year
140-159	90-99	Hypertension, Stage 1: Confirm within 2 months
> 160	> 100	Hypertension, Stage 2: Refer to doctor within 1 month
> 180	> 110	Alert: Should be evaluated and treated ASAP

*Note: For patients with diabetes or chronic kidney disease, the blood pressure goal is <130/<80 mmHg.*

These screening guidelines are taken from the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC 7).

Alert Level Values were taken from the WiseWoman Program and are based on NHANES and NHLBI recommendations.

### Possible errors involving the patient:

- How patient is positioned
- Wrong cuff size for patient
- Smoking or caffeine before screening

### Possible errors involving the screener:

- Poor hearing or eyesight
- Hearing fatigue – after 2 hours, take a 15-minute break
- Observer bias

### Each patient should know

- What his/her numbers are and what they mean
- What he/she can do about it
  - Educate about lifestyle changes work with patient to set a goal
  - Does he/she need to set up an appointment with a health care provider?
- Why it's important to be screened regularly
- When their next screening should be
- Blood pressure or cholesterol levels can not be determined by the way he/she feels
- The consequences of chronic, uncontrolled high blood pressure and cholesterol
- He/she should not stop treatment without discussing it with a health care provider

### If the patient is being referred to his/her physician, either

- Give a referral letter to the patient to be taken to the provider
- Mail a letter to the provider
- Phone the provider

### Share with each patient

- Have the patient involve family members in the treatment process
- Document all referral and follow-up activities initiated as a result of the screening



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