

## **HOW TO TAKE BLOOD PRESSURES**

### **Using a digital blood pressure monitor:**

Read the directions before using; each monitor may work differently. The digital device may include an inflatable cuff and monitor. The device has a built-in pump which inflates the cuff. The blood pressure (and often pulse) is shown on the digital display.

1. Take the BP with the patient sitting up or lying down with the arm stretched out. **The arm should be level with the heart.**
2. Put the cuff about 1 inch (2.5 cm) above the elbow. Wrap the cuff snugly around the arm. The blood pressure reading may not be correct if the cuff is too loose.
3. Turn on the blood pressure monitor and follow the directions that come with the monitor.
4. Write down the BP and which arm was used to take the BP. Let the air out of the cuff. Turn off the monitor and take off the BP cuff.

**NOTE:** Many good digital devices are as accurate as sphygmomanometers, but if your patient has very high blood pressure, you will want to double check it with the sphygmomanometer.

**Make sure batteries are fresh. Wrist devices are inaccurate and should not be used.**

### **Using a sphygmomanometer (*sfig-mo-man-ometer*) & stethoscope:**

A sphygmomanometer includes an inflatable cuff, inflating bulb, and a gauge showing the blood pressure.

1. Take the BP with the patient sitting up or lying down with the arm stretched out. **The arm should be level with the heart.**
2. Put the cuff about 1 inch (2.5 cm) above the elbow. Wrap the cuff snugly around the arm. The blood pressure reading may not be correct if the cuff is too loose.
3. Put the earpieces in your ears.
4. Using your middle and index fingers, gently feel for the pulse in the bend of the elbow. This is the brachial (bra-kee-ull) artery. You will feel the pulse beating when you find it. Do not use your thumb to feel for the pulse because your thumb has a pulse of its own.
5. Put the diaphragm of the stethoscope over the brachial artery pulse. Listen for the heartbeat.

6. Tighten the screw on the bulb and quickly squeeze and pump the bulb. This will cause the cuff to tighten.
7. Keep squeezing the bulb until the scale on the gauge reads about 160. Or, until the gauge reads at least 10 points higher than when you last hear the heartbeat.
8. Slowly loosen the screw to let air escape from the cuff. Let the gauge fall about 5 points a second. Carefully look at the gauge and listen to the sounds. Remember the number on the gauge where you first heard the thumping sound.
9. Continue to listen and read the gauge at the point where the sound stops.
10. The number of the first sound is the systolic (top number) pressure.
11. The second number is the diastolic (bottom number) pressure.
12. Write down the BP and which arm was used to take the BP.
13. Let the air out of the cuff.

### Helpful tips:

- \* Do not take a blood pressure on an injured arm or an arm that has an IV or a shunt.
- \* Usually a blood pressure should be taken when a person is rested and relaxed not right after exercising or stress. This will artificially inflate the systolic.
- \* In the case of very high blood pressure, take the BP on the opposite arm and record your findings in the chart. Repeat the BP if possible, in 10-15 minutes.
- \* If you cannot feel the pulse, try using the stethoscope. Put the diaphragm of the stethoscope over the bend in the arm. Tighten the screw and squeeze the bulb until you see the number 160 on the blood pressure gauge. Slowly loosen the screw on the bulb and listen for the pulse. You may need to move the diaphragm around a bit until you find the pulse. If you cannot hear the pulse, check the reading of the last blood pressure. Then, pump the cuff 10 to 20 points higher than that reading.
- \* Practice with a health professional to make sure you are fairly accurate before taking patient's BP.

### What is Blood Pressure?

\* Blood pressure (BP) is the force or pressure that carries blood to all parts of the body. A blood pressure reading is the pressure that blood puts on the walls of arteries. There are 2 parts to a blood pressure. One is called systolic (sis-tall-ik) and is the top or the first number in a blood pressure reading. The other number is called the diastolic (di-h-stall-ik) and is the bottom or second number in the reading. An example of a blood pressure reading is 120/80 (120 over 80), 120 is the systolic number and 80 is the diastolic number.

\* The systolic (top) number is the peak blood pressure when the heart is beating or squeezing out blood. The diastolic (bottom) number is the pressure when the heart is filling with blood or resting between beats.

**"Normal" blood pressure depends on many factors. High blood pressure** is a systolic of 140 or higher or a diastolic of 90-100 or higher (140/90). **Borderline blood pressure** is a systolic between 130 to 139 or a diastolic between 85-89. (135/85). Most borderline BP can be treated with lifestyle modification. Because of side effects, medication is usually not prescribed until the diastolic is over 100, but this differs among practitioners.