



# Home Blood Pressure Monitoring

---

## What do I need to consider when buying a home blood pressure unit?

**Electronic** home blood pressure units are the favored machines to purchase because they:

- do not require a stethoscope
- are easy to use
- last a long time.

There are many makers and models of home blood pressure units. Simply put, you can buy an electronic unit with two options-fully automatic or semi-automatic.

### **Fully automatic** electronic units:

- Inflate, and measure
- Display the blood pressure with the push of a button.
- Are simple to use
- Cost is about \$64-\$78.

The OMRON 700 series (711,712,725, etc.) is recommended, as they have been validated by AAMI (Association for the Advancement of Medical Instrumentation) to be accurate. Other devices may or may not be accurate and must be tested at least once by your health care provider.

UMHS recommends the Omron HEM-711AC.

The **semi-automatic** electronic units are **just as good**, but you need to do more work. You will have to

- Pump up the blood pressure cuff. The machine will then measure and display the blood pressure.

- Cost is about \$30-\$35.

**Use only upper arm monitors.** The wrist and finger units, although easy to use, are not exact for the measure of blood pressure.

A proper sized cuff is needed for the exact measure of blood pressure. **If you buy a cuff that is too small for your arm you will get a false high reading.** It is better to buy a cuff that is a bit bigger rather than too small of a cuff. If you have a large upper arm, buy a large blood pressure cuff. Omron and A&D both offer larger cuffs for their machines. You may need to buy the unit right from the maker.

### **What is the correct way to measure my blood pressure?**

Blood pressure measurements consist of two numbers, the first (higher) number is called the systolic blood pressure and the second (lower) number is the diastolic blood pressure. The pulse is also recorded by all of the electronic machines. An example of a blood pressure measurement is 140/80 mmHg. This means 140 for systolic blood pressure (higher number) and 80 for diastolic blood pressure (lower number). The blood pressure is measured in millimeters of mercury. The goal blood pressure is less than 140/90 for most people. A blood pressure of 135/80 is optimal for patients with:

- diabetes,
- kidney disease
- retinopathy
- heart failure,
- diseases that arise because of problems in blood circulation to the heart, brain and legs, including: coronary heart disease, peripheral arterial disease, or cerebrovascular disease.

A normal pulse is between 60-100 beats per minute (bpm) while at rest.

Blood pressure can vary or change for a number of reasons. Many factors can increase our blood pressure. Blood pressure can be high when:

- we are in pain or upset,
- right after exercise (even walking)
- while we are talking
- after using tobacco and caffeine products.

High blood pressure due to these reasons does not predict future harm. (There are other dangers from using tobacco that you should keep in mind though.)

Blood pressure tends to be lower at night and lowest when we are sleeping. Blood pressure may vary by 50-70 mmHg for systolic (the upper number) and 20 mmHg diastolic (the lower number) depending on how it is measured. For example: if you measures your blood pressure while talking after having a cigarette, or when you are upset you might get a reading of 190/100. When you re-measures the blood pressure in the proper setting, you will get a reading of 120/80.. **The difference is not the fault of the machine; it is an error in the way the blood pressure measure was done.**

**The correct way to measure your blood pressure is:**

- Use a fully automatic or semi-automatic upper arm monitor
- Do not use caffeine or tobacco or exercise for 30 minutes before you measure.
- Do not use alcohol or eat for 2 hours before you measure.
- Measure your blood pressure when you first wake up and before dinner. (Unless your doctor tells you other times.)
- Before you measure your blood pressure, sit in a chair with a back on it for 3-5 minutes, and do not talk. Have paper and pen or the graph given you by your doctor ready to record your blood pressure.
- Use the correct sized cuff for your arm

- Put the cuff in the proper place on your arm by placing the arrow or tubing on the inside of the elbow
- Keep your arm at heart level while doing a blood pressure measure. You can rest your arm on a table in a comfortable place.
- If your blood pressure is high you may repeat the reading and record the lowest of the two readings
- Always measure your blood pressure on the first day of every month both in the morning and at night. (unless your doctor tells you other times)

**The best home blood pressure measure:**

In your doctor's office your blood pressure should be less than 140/90. When you measure your blood pressure at home, it usually is somewhat lower because you are more relaxed at home. Your home blood pressure should usually be less than 140/90. If it is higher than that on average (most of the time), talk to your doctor. For certain medical conditions, lower blood pressure than 140/90 is advised. Talk to your doctor about what your target blood pressure should be.

Disclaimer: This document contains information and/or instructional materials developed by the University of Michigan Health System (UMHS) for the typical patient with your condition. It may include links to online content that was not created by UMHS and for which UMHS does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Patient Education by [University of Michigan Health System](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](#).

Patient Education Handout associated with UMHS Clinical Care Guideline  
Last Revised April 2014