

# Monitoring Your Blood Pressure at Home

**Why should I measure my blood pressure at home and keep a record of it?**

Measuring your blood pressure at home and keeping a record of the measurements will show you and your doctor how much your blood pressure changes during the day. Your doctor can use your measurements to see how your blood pressure medicine is working.

**What equipment do I need to measure my blood pressure?**

To measure your blood pressure at home, you can use either an *aneroid monitor* or a *digital monitor*. The aneroid device has a dial gauge that is read by looking at a pointer. The cuff is inflated by hand by squeezing a rubber bulb. Digital monitors have either manual or automatic cuffs. The blood pressure reading flashes on a small screen. Choose the type of monitor that best suits your needs.

**What are the advantages and disadvantages of the aneroid monitor?**

One advantage of this monitor is that it can easily be carried from one place to another. Also, the cuff for the device has a built-in stethoscope, so you don't need to buy a separate stethoscope. It's also easier to manage this way. The unit may have a special feature that makes it easier to put the cuff on with one hand. In addition, the aneroid monitor costs less than digital monitors. Aneroid monitors range in price from about \$20 to \$30.

The aneroid monitor also has some disadvantages. First, it is a complicated device that can easily be damaged and lose accuracy. The device is also difficult to use if it doesn't have the special feature—a metal ring—that makes it easier to put the cuff on. In addition, the rubber bulb that inflates the cuff may be difficult to squeeze. This monitor may not be appropriate for hearing-impaired people, because of the need to listen to heart sounds through the stethoscope.

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## What are the advantages and disadvantages of the digital monitor?

Since the digital monitor is automatic, it is the most popular blood-pressure measuring device. The blood pressure is easy to read, because the numbers are shown on a screen. Some electronic monitors have a paper printout that gives a record of the blood pressure reading.

The digital monitor is easier to use than the aneroid unit. It has a gauge and stethoscope that are one unit, and the numbers are easy to read on the display area. The device also has an error indicator. Furthermore, deflation is automatic. Inflation of the cuff is either automatic or manual, depending on the model. This blood pressure monitoring device is good for hearing-impaired patients, since there is no need to listen to heart sounds through the stethoscope.

A disadvantage of the digital monitor is that the accuracy is changed by body movements or an irregular heart rate. In addition, the monitor requires batteries. Some models are designed for use with the left arm only. This may make them hard for some patients to use. Finally, some digital monitors are expensive. They start in price at \$40 for semiautomatic models. Fully automatic models start at \$100.

## Can I use a finger/wrist blood pressure monitor?

Tests have shown that finger/wrist devices do not measure the blood pressure very accurately. They are extremely sensitive to position and body temperature.

### Features to look for in a blood pressure monitor

- Proper cuff size is very important. Ask a medical professional to tell you the cuff size you need, based on the size of your arm. Blood pressure readings will be wrong if your cuff is the wrong size.
- The numbers on the monitor must be easy to read.
- If you are using a stethoscope, you must be able to hear heart sounds through it.
- Cost may be an important factor. Since home blood pressure units vary in price, you may have to shop around. The most expensive units might not be the best or the most accurate.

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**How do I know if my monitoring device is accurate or if I am using it correctly?**

Once you buy your monitor, take it to your doctor's office to be checked for accuracy. You should have your monitor checked once every year. Proper care and storage are also necessary. Make sure the tubing is not twisted when the monitor is stored, and keep it away from heat. Periodically check the tubing for cracks and leaks.

Ask your doctor or nurse to teach you how to use your blood pressure monitor correctly. Proper use of it will help you and your doctor achieve good results in controlling your blood pressure.

**In measuring my blood pressure, what do I need to understand?**

First, you need to know the meaning of a few terms. *Blood pressure* is the force of blood against the walls of the artery. You may be asked to monitor your blood pressure at home because your office readings show that you have *hypertension*, or high blood pressure. Remember, your blood pressure changes during the day, according to the needs of your body. For example, blood pressure goes up when you exercise and goes down when you are resting or sleeping.

You will be measuring the blood pressure in your *brachial artery*, a blood vessel that goes from your shoulder to just below your elbow. The blood pressure monitor will show two different pressure readings. The systolic pressure is the highest pressure in an artery when your heart is pumping blood to your body. The *diastolic pressure* is the lowest pressure in an artery when your heart is at rest.

**What do I need to do before I measure my blood pressure?**

- Rest for three to five minutes before measuring your blood pressure. Do not talk.
- Sit in a comfortable position, with your legs and ankles uncrossed and your back supported.
- Place your arm, raised to the level of your heart, on a table or a desk, and sit still.
- Wrap the correctly sized cuff smoothly and snugly around the upper part of your bare arm. The cuff should fit snugly, but there should be enough room for you to slip one fingertip under the cuff.
- Be certain that the bottom edge of the cuff is 1 inch above the crease of your elbow.

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**If I use an aneroid monitor, how do I measure and record my blood pressure?**

1. Put the stethoscope ear pieces into your ears, with the ear pieces facing forward.
2. Place the stethoscope disk on the inner side of the crease of your elbow.
3. Rapidly inflate the cuff by squeezing the rubber bulb to 30 to 40 points higher than your last systolic reading. Inflate the cuff *rapidly*, not just a little at a time. Inflating the cuff too slowly will cause a false reading.
4. *Slightly* loosen the valve and slowly let some air out of the cuff. Deflate the cuff by 2 to 3 millimeters per second. If you loosen the valve too much, you won't be able to determine your blood pressure.
5. As you let the air out of the cuff, you will begin to hear your heartbeat. Listen carefully for the first sound. Check the blood pressure reading by looking at the pointer on the dial. This number will be your systolic pressure.
6. Continue to deflate the cuff. Listen to your heartbeat. You will hear your heartbeat stop at some point. Check the reading on the dial. This number is your diastolic pressure.
7. Write down your blood pressure, putting the systolic pressure before the diastolic pressure. You would write down a number such as 120/80.
8. If you want to repeat the measurement, wait two or three minutes before reinflating the cuff.

**If I use a digital monitor, how do I measure and record my blood pressure?**

1. Put the cuff around the arm. Turn the power on, and start the machine.
2. The cuff will inflate by itself with a push of a button on the automatic models. On the semiautomatic models, the cuff is inflated by squeezing the rubber bulb. After the cuff is inflated, the automatic mechanism will slowly reduce the cuff pressure.
3. Look at the display window to see your blood pressure reading. The machine will show your systolic and diastolic blood pressures on the screen. Write down your blood pressure, putting the systolic pressure before the diastolic pressure.
4. Press the exhaust button to release all of the air from the cuff.
5. Remove the cuff. If you want to repeat the measurement, wait two or three minutes before reinflating the cuff. Otherwise, remove the cuff and turn off the machine.



This handout provides a general overview on this topic and may not apply to everyone. To find out if this handout applies to you and to get more information on this subject, talk to your family doctor.

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