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High Blood Pressure | *Blood Pressure Monitoring 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 record of measurements to see how well your medicine is working to control your high blood pressure. Also, measuring your own blood pressure is a good way to take part in managing your own health and recognizing changes.

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. Choose the type of monitor that best suits your needs.

The aneroid monitor has a gauge that is read by looking at a pointer on a dial. The cuff is placed around your upper arm and 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.

What are the pros and cons of the aneroid monitor?

One advantage of the aneroid 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 easy to put the cuff on with one hand. In addition, the aneroid monitor usually costs less than digital monitors. Aneroid monitors range in price from about \$20 to \$40.

The aneroid monitor also has some disadvantages. First, it is a complicated device that can easily be damaged and become less accurate. 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 type of monitor may not be appropriate for hearing-impaired people, because of the need to listen to heart sounds through the stethoscope.

What are the pros and cons of the digital monitor?

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

The digital monitor is easier to use than the aneroid unit. It has a gauge and stethoscope in one unit, and the numbers are easy to read. It also has an error indicator, and 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 range in price from about \$30 to more than \$100.

Can I use a finger/wrist blood pressure monitor?

Tests have shown that finger/wrist devices do not measure blood pressure very accurately. They are extremely sensitive to position and body temperature, and are more expensive than other monitors (often costing more than \$100).

Features to look for in a blood pressure monitor

- The right cuff size is very important. Ask your doctor, nurse or pharmacist 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 should be easy for you 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.

How do I know if my monitor 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 a 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.

Understanding the medical terms

- Blood pressure is the force of blood against the walls of the artery.
- Hypertension means high blood pressure.
- Hypotension means low blood pressure.
- Brachial artery is a blood vessel that goes from your shoulder to just below your elbow. You measure the pressure in this artery.
- Systolic pressure is the highest pressure in an artery when your heart is pumping blood to your body.
- Diastolic pressure is the lowest pressure in an artery when your heart is at rest.
- Blood pressure measurement is made up of both the systolic and the diastolic pressure. It is normally written like this: 120/80, with the systolic (top) number first.

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

- Don't eat or use caffeine, alcohol, or tobacco products 30 minutes before measuring your blood pressure.
- Go to the bathroom and empty your bladder before measuring your blood pressure.
- Rest for 3 to 5 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 left arm, raised to the level of your heart, on a table or a desk, and sit still.
- Wrap the 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.
- Check to see that the bottom edge of the cuff is 1 inch above the crease of your elbow.

How do I use a manual or aneroid monitor?

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, with the systolic pressure before the diastolic pressure (for example, 120/80).
8. If you want to repeat the measurement, wait 2 to 3 minutes before reinflating the cuff.

How do I use a digital monitor?

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, with the systolic pressure before the diastolic pressure (for example, 120/80).
4. Press the exhaust button to release all of the air from the cuff.
5. If you want to repeat the measurement, wait 2 to 3 minutes before reinflating the cuff.

What does my blood pressure reading mean?

Normal blood pressure is 120/80 or lower. High blood pressure is 140/90 or higher. If your blood pressure is between 120/80 and 140/90, you have something called "prehypertension," which means that you are in the beginning stages and at risk for high blood pressure.

Only your doctor can tell you whether you have high blood pressure. Most doctors will check your blood pressure several times on different days before deciding that you have high blood pressure. If you have high blood pressure or prehypertension, you will need to check your blood pressure regularly and keep in touch with your family doctor.



	Systolic (first/top number)	Diastolic (second/bottom number)
Normal	Less than 120	Less than 80
Prehypertension	120–139	80–89
High blood pressure: Stage 1*	140–159	90–99
High blood pressure: Stage 2	160 or higher	100 or over

**If you have diabetes or kidney disease, high blood pressure ranges may be lower than for other people. Talk to your doctor about what is considered high blood pressure for you.*

Hypotension, or low blood pressure, happens when your systolic pressure is consistently below 90--or 25 points below your normal reading. This can be determined by several blood pressure readings over several days. Hypotension can be a sign of shock, which is a life threatening condition. Contact your doctor immediately if you are dizzy or fainting.

Written by familydoctor.org editorial staff

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