What is blood pressure?
Blood pressure is the pressure of the blood against the walls of the arteries.

Blood pressure results from two forces. One is created by the heart as it pumps blood into the arteries and through the circulatory system. The other is the force of the arteries as they resist the blood flow.

Why do blood pressure numbers indicate?
- The higher (systolic) number represents the pressure while the heart contracts to pump blood to the body.
- The lower (diastolic) number represents the pressure when the heart relaxes between beats.

The systolic pressure is always stated first. For example: 118/76 (118 over 76); systolic = 118, diastolic = 76.

Blood pressure below 120 over 80 mmHg (millimeters of mercury) is considered optimal for adults. A systolic pressure of 120 to 139 mmHg or a diastolic pressure of 80 to 89 mmHg is considered “prehypertension” and needs to be watched carefully. A blood pressure reading of 140 over 90 or higher is considered elevated (high).

How can I tell if I have high blood pressure?
High blood pressure usually has no symptoms. In fact, many people have high blood pressure for years without knowing it. That’s why it’s called the “silent killer.” Hypertension is the medical term for high blood pressure. It doesn’t refer to being tense, nervous or hyperactive. You can be a calm, relaxed person and still have high blood pressure.

A single elevated blood pressure reading doesn’t mean you have high blood pressure, but it’s a sign that further observation is required. Ask your doctor how often to check it or have it checked. Certain diseases, such as kidney disease, can cause high blood pressure. In 90 to 95 percent of cases, the cause of high blood pressure is unknown.

The only way to find out if you have high blood pressure is to have your blood pressure checked. Your doctor or other qualified health professional should check your blood pressure at least once every two years, or more often if necessary.

Optimal blood pressure with respect to cardiovascular risk is less than 120/80 mmHg. However, unusually low readings should be evaluated to rule out medical causes.
Advice For Home Blood Pressure Monitoring

Knowledge of your home blood pressure is a valuable tool to diagnose and treat high blood pressure. By recording your readings and sharing them with your doctor, your blood pressure can be more easily controlled and your health improved. The following information and suggestions are provided to help you be a partner in your own health care.

Purchasing A Blood Pressure Monitor

Invest in an electronic, automated UPPER ARM cuff device. These are available in most discount stores and drug stores. Recommended brands include: Omron (especially Intellisense), Sunbeam, and A&D.

The arm cuff size is critical for accurate readings. A cuff that is too small or too big can cause errors. Measure (in centimeters) the circumference of your upper arm at its largest area.

22-26 cm = small adult
27-34 cm = adult standard size
35-44 cm = large adult size
45-52 cm = adult thigh size

If you wish to check your equipment accuracy against the doctor’s blood pressure equipment, bring your kit to a scheduled appointment.

What are normal blood pressure readings?

<table>
<thead>
<tr>
<th>Systolic (Top number)</th>
<th>Diastolic (Bottom number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 120</td>
<td>Below 80</td>
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</tbody>
</table>

Elevated Blood Pressure

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>140-159</th>
<th>90-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2</td>
<td>160 and up</td>
<td>100 and up</td>
</tr>
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</table>

Consecutive/frequent readings above 140/90 should be reported to the doctor. Diabetic patients and patients with chronic renal disease are urged to maintain a blood pressure of 130/80 or less. Ask your doctor what he/she feels are appropriate ranges for you.

When should I worry or call the doctor?

You should report high blood pressures when they are associated with symptoms such as headache, dizziness, visual changes, numbness or tingling, or chest pain. If your MD is not available, go to the emergency room.

When To Check Your Blood Pressure

When starting a medication or changing doses, it is wise to take and record readings twice a day (same arm) one hour after AM dose and again in evening.

Guidelines For More Accurate Readings*

- Take your blood pressure on the same arm at consistent times and RECORD the findings. Blood pressure may vary from arm to arm up to 12mm.
- Wait at least an hour after getting up in the morning before checking your pressure. Do not take your blood pressure immediately after exercising.
- After setting up your BP monitor, sit quietly for several minutes and then check the pressure. It is often helpful to REPEAT taking the blood pressure at the same sitting a few minutes after the first attempt.
- Do not use caffeine, tobacco, or alcohol for 30 minutes prior to checking blood pressure.
- Empty your bladder before taking blood pressure. A full bladder can slightly increase the blood pressure.
- Sit comfortably and do not cross your legs. Keep your arm supported on a table or desk at the level of the heart. The cuff should be placed over bare skin on the upper arm. Observe the markings on the cuff for proper placement.
- Do not talk or have others talk to you when taking your blood pressure.
- Additional tips on using your specific machine and how to care for it are included in the instructions in each kit.

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*Getting the most out of home blood pressure monitoring
www.mayoclinic.com/health/high-blood-pressure/DS00100

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