

BLOOD PRESSURE

Blood Pressure is a measure of the blood's pressure in the circulatory system. Blood pressure changes constantly during the course of the cardiac cycle. Blood pressure readings report two values: the higher reading (**systolic pressure**) shows the highest pressure in the arteries occurring when the heart contracts; the lower reading (**diastolic pressure**) shows the lowest pressure in the arteries, which occurs right before the heart contracts. Blood pressure readings are written with the highest value first, then the lowest value. Readings of 120/80 are considered to be normal, with high blood pressure being defined as a systolic pressure which is 140mmHg or more at rest and a diastolic pressure which is 90mmHg or more at rest. Only a patient's physician is qualified to determine whether the readings obtained are normal for that person.

Measuring blood pressure: Have the patient, while relaxed and in a sitting position, extend the arm from which the blood pressure will be taken to the front or laterally with the palm of the hand up.

Attach the cuff and diaphragm: Place the cuff approximately one inch (2-3cm) above the bend of the elbow against the skin of the upper arm with the artery marker placed on top of the brachial artery. **Never place the cuff over clothing.** Wrap the cuff around the arm and secure the cuff with the "touch and hold" strap (If the cuff has a metal D-shaped ring, pull the free end of the cuff through the D-ring and close the cuff with the "touch and hold" strap). The cuff should be snug, but not too tight. If one or two fingers can fit between the cuff and the arm, the cuff is properly secured. Place the diaphragm of the stethoscope over the brachial artery inferior to the cuff.

Inflating the cuff: Close the bulb's air valve by turning the air release valve clockwise. Squeeze the inflation bulb at a steady rate until the gauge's needle points at approximately 30mmHg above the individual's normal systolic pressure value. If the individual's normal blood pressure is not known, it is recommended to inflate to 200mmHg.

Systolic blood pressure reading: Open the air release valve **slowly** by turning it counter-clockwise while holding the diaphragm of the stethoscope over the brachial artery. Proper deflation rate is vital for an accurate reading. The recommended deflation rate is 2-3mm Hg per second, or a drop of one to two marks on the pressure gauge with each heartbeat. **Do not keep the cuff inflated any longer than necessary.** As the cuff begins to deflate, listen carefully with the stethoscope. Note the reading on the gauge as soon as a faint, rhythmic tapping or thumping sound is heard. The first sound is the systolic pressure reading. Always check with your healthcare provider to ensure readings are performed correctly.

Diastolic blood pressure reading: Allow the pressure to continue dropping at the same deflation rate. Note the reading on the gauge when the last audible thumping, swishing, or blowing sound is heard; this is the diastolic blood pressure reading. After a few seconds have passed and no audible thumping, swishing, or blowing sounds are heard, deflate the cuff using the air release valve completely. Remove the cuff and stethoscope from the arm.

Record the systolic and diastolic readings. Repeat the measurement two or more times to ensure accuracy. Only a patient's physician is qualified to analyze blood pressure.

MAINTENANCE

Recommended care and maintenance:

Do not drop or pull excessively on the sphygmomanometer components	
Never inflate beyond 300mmHg	
Do not expose the cuff to direct sunlight	
Do not put the sphygmomanometer in contact with sharp objects which could pierce the material and cause damage	
Always deflate the cuff completely before storage	
Do not dismantle or disassemble	
Cleaning	Wipe off the manometer and bulb with a clean, damp cloth
	The cuff may be washed with soap and cold water, then rinsed and air dried
Storage	Store the complete instrument in the provided storage case
	Store in temperatures of -4°F to 158°F (-20°C to 70°C) and at a relative humidity of <85%

SPECIFICATIONS

Measurement range: 0-300mmHg
 Precision: ±3mmHg
 Scale graduation: 2mmHg

