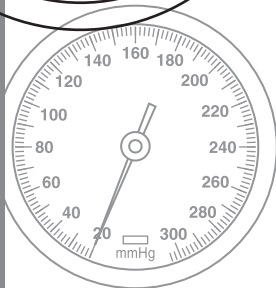


READ THIS INSTRUCTION ►
CAREFULLY BEFORE USE

Instructions For Use

Aneroid Sphygmomanometer



Dear Customer:

Timesco Healthcare expresses thanks for purchasing one of our aneroid sphygmomanometer which features advanced non-stop pin mechanism, precise control valve, durable cuff to offer you utmost reliable & accurate blood pressure measurement experience for both professional and home use.

This sphygmomanometer complies with the following international product standards and quality systems:

EN 1060-1:1995/A1:2002 Non-invasive sphygmomanometers - Part 1: General requirements.

EN 1060-2:1995 Non-invasive sphygmomanometers - Part 2: Supplementary requirements for mechanical sphygmomanometers.

AAMI/ ANSI SP9:1994 Non-automated sphygmomanometers

ISO: 13485:2003 Quality System



You are strongly recommended to study this user manual carefully and thoroughly before taking blood pressure measurement.

Description

A sphygmomanometer consists of a hand bulb pump, a unit that displays the blood pressure reading, and an inflatable cuff that is usually wrapped around a person's upper arm. A stethoscope is also used in conjunction with the sphygmomanometer to hear the blood pressure sounds.

About the Blood pressure

Blood Pressure is the pressure exerted by the blood at right angles to the walls of the blood vessels. Unless indicated otherwise, blood pressure refers to **systemic arterial blood pressure**. The systolic pressure is defined as the peak pressure in the arteries during the cardiac cycle; the diastolic pressure is the lowest pressure (at the resting phase of the cardiac cycle).

Blood pressure values are universally stated in millimetre of mercury (mmHg). It is recorded as systolic/diastolic. For example a systolic of 120 and diastolic of 80 would be recorded 120/80.

Measures of blood pressure are not static, but undergo natural variations from one heartbeat to another or throughout the day (in a circadian rhythm); they also change in response to stress, nutritional factors, drugs, or disease.

What is a Normal Blood Pressure?

A systolic pressure of less than 130mmHg and a diastolic pressure of under 90mmHg are recognized as normal level by World Health Organization (WHO) However, individual blood pressure will vary.



Note: Blood pressure does increase with age, so you must check with your doctor to find out what is “normal” for you!

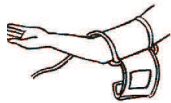
How to fix the cuff on the arm

Measurement is suggested on left arm. If measuring on right arm, reverse procedures as necessary.

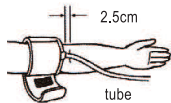
- 1) Remove the clothing from the measuring arm.



- 2) Wrap the cuff around the naked arm so the middle of the cuff is over the brachial artery pulse.

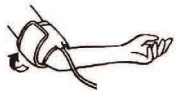


- 3) Position the cuff approximately 2.5cm above the elbow, the symbol “Ø” is above the artery.



- 4) Close the cuff by means of the Velcro closure.

Caution: The cuff should be snug, not be too tight. One finger should be easily slide between cuff and arm.



Choice of the cuff size

As the standard instrument is supplied with the cuff size 50*14cm.

Care should be taken to ensure that the cuff size is appropriate for the person whose blood pressure is being taken. This improves the accuracy of the reading. Children and adults with smaller or larger than average-sized arms require special sized cuffs appropriate for their needs.

22x4.5 cm	New born
38x7cm	infant
40x5cm	Child
50x10 cm	Boy
50x14 cm	Adult
60x17 cm	Obese
78x21.5cm	Thigh



Caution! Choosing the correct cuff size!

Correct Measuring Posture

Correct measuring posture is essential for an accurate measurement of your blood



- Sit comfortably in a chair with the measurement arm resting flat on a surface so that the center of your arm is at about the same height as your heart. If someone else is taking your blood pressure, you may recline.



Note: If the arm is above heart level you may obtain lower than “normal” readings. Conversely, if it is below heart level, you may obtain elevated.

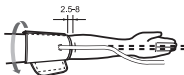
Measurement Procedures

- 1) Remove the cuff, stethoscope, pressure gauge, and bulb (also known as a “bladder”) from the kit, taking care to untangle the various tubes.
- 2) Sit down at a table or desk where you can easily rest your arm so that when you bend your elbow, your elbow is parallel to your heart. (Experts recommend you use your left arm; But while you're first adjusting to self-testing, use the left arm if you're right-handed, or vice versa.)
- 3) Gently place the stethoscope's ear pieces in your ears.
- 4) Bend the arm you're going to test.
- 5) Wrap the cuff around your arm, slipping the top part of the cuff through the metal bar that's attached to the cuff. Most cuffs have Velcro, making it easy to keep the cuff in place.



6) Make sure the cuff is snug, but not too tight, if you cut off your circulation and become agitated, you're going to get an alarming blood pressure reading!

7) Place the head of the stethoscope, that is, the round blank dial, just below (1-4 in. or 2.5-8 cm) the armpit, near the inside middle side of the arm: that's the brachial artery. (You should hear a faint thumping sound.) To aid in finding this you can press two fingers (not your thumb) to the area where it should be and move around until you feel a pulse. There is usually a bluish line where the artery is.



8) Take the other end of the sphygmomanometer the end with the pressure gauge or dial -- and look for a little clip on the back (Emerald Model Only).

Attach that clip to something sturdy, such as a hardcover book, that you can place on the table. It's important to keep the gauge anchored and stable.



9) Take the bulb (or bladder) and tighten the valve at the base; be sure to turn the valve all the way clockwise to shut it off.

10) Pump the bulb using slow but very steady pressure until the needle on the gauge is at about 20-30 points above your usual systolic (top) number. Now, gently start turning the bulb's valve counter-clockwise so that air is released slowly and steadily.



11) As you watch the needle fall back down the gauge, listen for a thumping sound. (The clinical name for this is "Korotkoff sounds.") Keep your eyes on the gauge when you first hear thumping, you have your systolic number, which represents the greatest amount of pressure exerted on the artery walls as your heart pumps blood.

12) Keep watching the gauge. When the thumping fades to silence, you have your diastolic (bottom) number, the lowest amount of pressure.

13) Open the air-release valve completely so that air can escape from the cuff immediately.

14) Remove the cuff and stethoscope.

USEFUL TIPS FOR BLOOD PRESSURE MONITOR

- Wear short sleeves so your arm is exposed or naked.
- Any strenuous activity immediately before measurement is prohibited.
- Rest 5 to 10 minutes before measuring your blood pressure.
- Get two readings, taken at least 5 minutes apart, and average the results.
- Do not hold the bell (aka. "head", "diaphragm") of the stethoscope with your thumb. The thumb has a beat of its own, which may interfere with the reading.
- Do measure your pressure the same time each day.
- Record the date and time measurement was made.
- Talking, eating, drinking or movement are prohibited during the measurement process

Additional Information

1. Precautions

Safety

Do not over inflate the bladder beyond 300mm Hg. It can cause the air leak and explosion.

Avoid spilling liquid onto or into the manometer and valves.

Do not leave the instrument in a location near extreme heat or cold source.

Do not leave instrument in a place subject to excessive dust, sand, moisture, or rain.

2. Technical Specifications

Temperature: -20°C to +70°C

Humidity: Relative humidity 85%(non-condensing)

Accuracy: ± 3 mmHg

Pressure resolution: 2mmHg

Measurement Range: 300 mmHg

Air leakage: $< \pm 4$ mmHg/min

Specifications are subject to change without notice to improve quality.

3. Care and Maintenance:

- The cuff, tube and bulb are vulnerable to sharp instruments and chemical and corrosive liquid.
- Any unauthorized dismantling and reassembling on the manometer is forbidden.
- Do not drop the device or give it a violent mechanical

- shock. It causes hindrance.
- Operating the device within the limit of authorised operation temperature.
- Keeping the manometer away from longtime direct sunshine.

4. Cleaning:

- Wash the cuff with a moderate detergent and dry it.
- Wipe the tubes, bladder with the damp cloth.
- Wipe the manometer and chestpiece with dry and soft cloth.
- Do not use chemical agents and liquids to clean the unit, as they may damage the device.

5. Sterilization:

- Sterilization is not necessary, since the parts of the manometer should not come into direct contact with the patient's body during measurement.
- Complete deflation of the cuff before storage.
Store the complete device in the bag provided.
Temperature: -20°C to $+70^{\circ}\text{C}$
Humidity: Relative humidity 85%(non-condensing)

6. Recalibration:

- The device must be calibrated for the sake of reliable performance and accuracy. Thus, we kindly recommend a fixed check of static pressure display per 2 years.
- Consulting Timesco for more information on it.

7. Warranty:

- There is a one year guarantee with the whole set from the purchasing date.
- The guarantee is effective under the condition of correct handle and operation in accordance with items listed in this manual. Any improper handling and operation is excluded from the guarantee.
- The guarantee service only takes effect with presentation of the warranty card issued and filled out by the dealer. Please properly take care of this warranty

Please retain this information for future reference.

- The manufacturer reserves the right to make technical changes without notice in the interest of progress.

Declaration

- The need to consult a healthcare professional for interpretation of pressure measurement.
- The system may not meet its performance specifications if stored or used outside the manufacturer's specified temperature and humidity ranges in this manual.
- Prior notices will not be given in case of any amendments within this manual. The mentioned trademarks and names are owned by the corresponding companies.

CE 0120



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