

## Upper arm BP cuff

**Range Marking and Index Marking:**  
Assists with determining proper cuff size. If the cuff is the correct size, the index marking will fall between the range markings when the cuff is wrapped on the patient's arm.

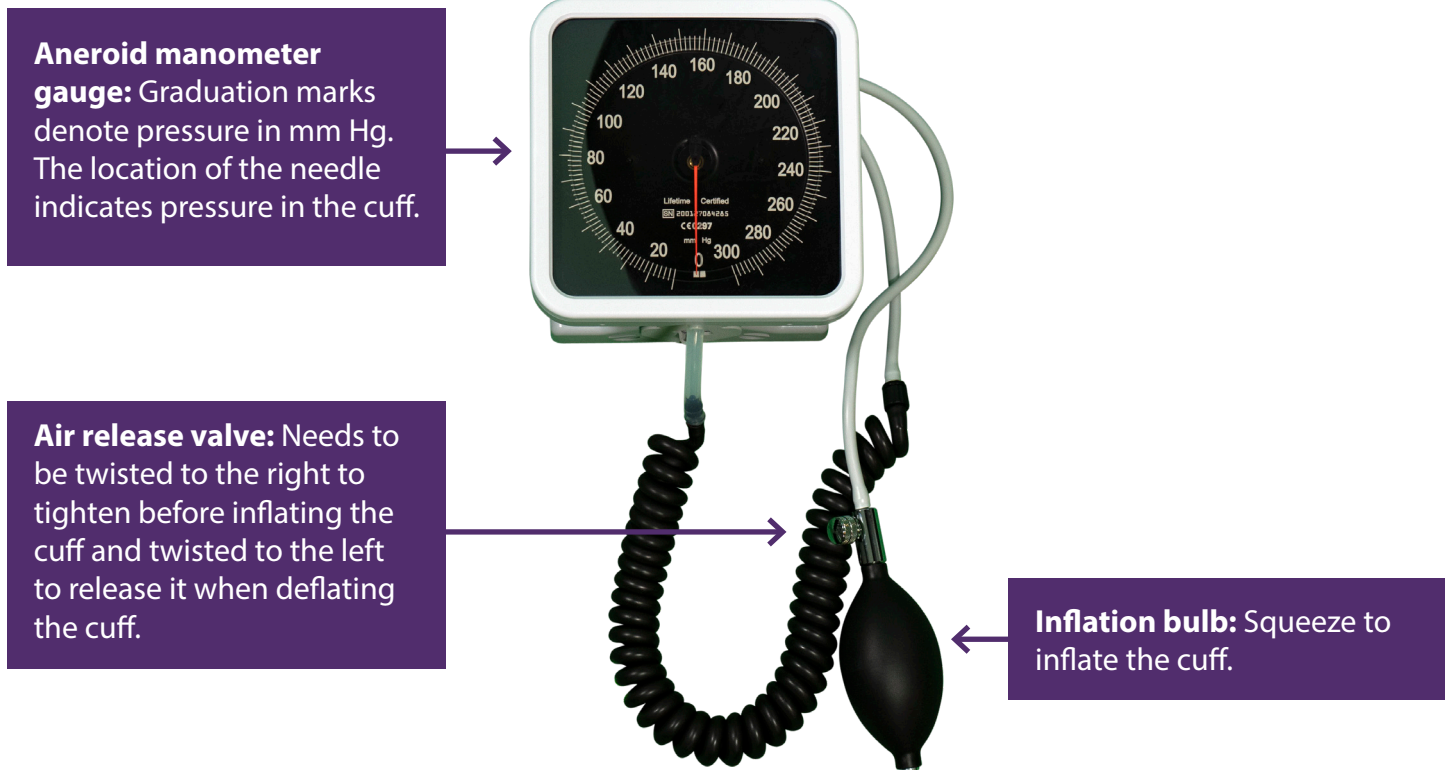
**Artery indicator:** needs to be aligned over the brachial artery.



**Air bladder:** An air bladder inside allows the cuff to be inflated and deflated. The bladder is not usually marked but can be felt inside the cuff. It typically runs 1/2-2/3 the length of the cuff.

★ **Note:** BP cuff markings may vary depending on the brand and device you are using.

## Manual BP Device



+ PROS	- CONS
<ul style="list-style-type: none"> <li>+ Convenient</li> <li>+ Widely available</li> </ul>	<ul style="list-style-type: none"> <li>- Errors are often caused by improper technique</li> <li>- Frequent calibration is required, especially portable devices</li> <li>- Wall-mounted devices may not be set up for proper positioning</li> <li>- Presence of a medical professional is required which may lead to higher measurements</li> </ul>

*\*Should be calibrated for accuracy and checked for leaks by a biomedical or clinical engineer. Calibration should occur every 6 months for wall-mounted devices and more frequently for mobile and portable devices.*

## Semi-automated BP device

- Easy start and stop of measurement with a press of a button
- Pressure settings for cuff inflation
- Memory for multiple measurements
- Refer to the device manual for more information about the features of your specific device



+ PROS	– CONS
<ul style="list-style-type: none"> <li>+ Consistently inflates to appropriate levels and deflates at correct speeds</li> <li>+ Devices validated for clinical accuracy are available</li> <li>+ Obtains accurate measurements more easily than the manual method</li> </ul>	<ul style="list-style-type: none"> <li>– A medical professional must be present</li> <li>– Usually doesn't average multiple readings</li> </ul>

*\*Should be calibrated for accuracy and checked for leaks (cuff bladder, tubing) at least once every 12 months by a biomedical or clinical engineer.*

## Automated BP device

- Easy measurement with a press of a button
- Pressure settings for cuff inflation
- Programmable to take multiple measurements
- Calculates average readings
- Refer to manuals for your device for more information about the features of your specific device



+ PROS	- CONS
<ul style="list-style-type: none"> <li>+ Consistently inflates to appropriate levels and deflates at correct speeds</li> <li>+ Devices validated for clinical accuracy are available</li> <li>+ Obtains accurate measurements more easily than the manual method</li> <li>+ Can measure and average multiple BPs, with or without staff present in the room, in approximately 5 minutes</li> <li>+ The average of 3 consecutive BP measurements taken using AOBP correlates well with daytime mean BP obtained during 24-hour ABPM (gold standard of BP measurement)</li> </ul>	<ul style="list-style-type: none"> <li>- Currently not widely used in most health care settings</li> </ul>

*\*Should be calibrated for accuracy and checked for leaks (cuff bladder, tubing) at least once every 12 months by a biomedical or clinical engineer.*