

Cheshire and Merseyside Guideline for Blood Pressure Testing (for use outside of General Practice)

This guideline has been developed for BHF-funded projects and is subject to review. It is intended to support the identification of adults aged 18 and over with possible high blood pressure, who are not pregnant and do not have a known irregular heartbeat.

Follow the flow chart to see what information should be given, and what action needs to be taken depending on the person's blood pressure level. The reverse of this card contains information on accurate blood pressure measurement and accurate blood pressure monitors, as well as some common issues that may arise when taking blood pressure.

Verbal consent given to take Blood Pressure

Blood Pressure is taken

NORMAL <129/84 mmHg

Blood pressure acceptable

Re-check in 5 years or sooner

Give lifestyle advice

HIGH SIDE OF NORMAL 130/85 - 139/89 mmHg

High side of normal Re-check in a year Give lifestyle advice

HIGH 140/90 - 179/109 mmHg

Re-check in 5 minutes if possible

If still high advise: follow-up measurement e.g. by local pharmacy, practice nursing team or self-testing within 1 week. If still within this range see GP surgery within 1 month of first reading Give lifesyle advice.

VERY HIGH Over 180/110 mmHg

Re-check in 5 minutes

Seek IMMEDIATE medical attention if symptoms present (headache, blurred vision, chest pain, difficulty breathing).

If no symptoms but BP remains over
180/110mmHg advise to seek same day medical review.

Special situations

- In almost everyone, low readings (less than 90/60 mmHg) are normal, healthy and cause no problems. A few people with a blood pressure at these levels will have an underlying cause for their low blood pressure. If the person has a low blood pressure reading and symptoms, such as fainting and dizziness, they should see their doctor.
- People with a **known irregular pulse** (arrhythmia) should go to their GP to have their blood pressure checked manually, as it can be difficult to get an accurate reading using digital devices.
- If irregular pulse is newly identified, seek IMMEDIATE medical attention if displaying symptoms (chest pain, breathlessness, palpitations). If no symptoms seek medical review within 48 hours.
- If a person you test is already being treated for high blood pressure but their levels remain high, (above the audit standard of 150/90mmHg) suggest that they talk to their doctor or practice nurse about their treatment.

Error reading appears (Digital Monitor)

- Check that the reading is being taken properly.
- For upper arm monitors check that the cuff is the right size and applied correctly.
- Retake the reading.
- If still unable to obtain a blood pressure reading, ask person to be checked at alternative community setting e.g. local pharmacy / practice nursing team.

People using this pathway must have received relevant training and take blood pressure measurements as part of their role.

Medico-legal liability for all people and organisations undertaking blood pressure measurement remains with the individual and/or their organisation.





Using an accurate monitor or sphygmomanometer:

Blood Pressure UK strongly encourages the use of a monitor validated by the British Hypertension Society (BHS) which has been independently tested and shown to be accurate. A list of monitors, for clinic and home use, can be found on the BHS's website at www.bhsoc.org. The BHS website also has information on accurate blood pressure measurement. Check to make sure your skills are up-to-date. Other validated manual blood pressure monitors can be used. Aneroid devices can be inaccurate. The mechanism inside an aneroid device is delicate and this can mean that they lose accuracy over time, possibly giving falsely low readings. They should be checked and recalibrated at least once a year.

How to take an accurate reading on the upper arm

The person being tested should:

- Be seated in a quiet place if possible
- Be still and silent whilst the reading is taken talking and moving both affect accuracy
- Ideally not have a full bladder (this means they will be less relaxed), not have exercised or had caffeine, nicotine or a large meal recently, as these can temporarily raise blood pressure
- Wear loose clothing on their upper arm. It does not matter which arm you use.

The equipment:

- Should be in good working order and calibrated/checked ideally within the last year
- Monitors/sphygmomanometers should have a selection of cuff sizes if possible.
 Most people can use a standard size cuff (12x35cms). The bladder inside the cuff
 should encircle 80% of the top of the arm. If the cuff is too big the reading will be
 falsely low, if it is too small the reading will be falsely high. Ask people with very
 large or very thin arms to go to their doctor or nurse for measurement if you do not
 have the right-sized cuff.

The technique:

- The cuff should be placed two to three centimetres above the elbow joint. Place it directly next to the skin if possible
- The centre of the bladder in the cuff should be positioned over the line of the artery. Most cuffs have this marked on them
- The arm should be supported at the level of the mid sternum (heart level). If the arm is below heart level it can lead to an overestimation of the systolic and diastolic pressure by about 10 mmHg. Having the arm above heart level can lead to underestimation.

Wrist monitors:

A number of wrist monitors have recently received a clinical validation. However, in general, wrist monitors tend to be less accurate than machines that measure from the top of the arm and can be difficult to position accurately. The BHS states that validated upper arm devices are recommended in preference to wrist devices.

Giving information to people being tested

- Please make sure that the person being tested takes away the completed record card. Please also ensure that they receive a copy of the relevant leaflet/information on blood pressure and refer them to www.bloodpressureuk.org for more information.
- Testing in very busy or **noisy environments**, like shopping centres, gyms etc, can affect readings, usually increasing them. Make sure that the person being tested knows this.
- It is possible to have a **one-off high reading**, so if you ask someone to go and get re-tested, reassure them that this sometimes happens.
- Everyone should be following the guidelines for a healthy lifestyle, not just those with high blood pressure or those at risk. People with a blood pressure over 120/80 mmHg are at risk of developing high blood pressure in the future. Taking action now could prevent this, so please use the testing as an opportunity to get this message across.
- High blood pressure can be a systolic reading of 140 or above, a
 diastolic reading of 90 or above, or both. For example, a reading of
 150/85 mmHg is high because the systolic is above 140; a reading
 of 139/95 mmHg is high because the diastolic is above 90. A
 reading of 150/95 mmHg is also high as both the systolic and the
 diastolic number are raised.

Notes for Primary Care

Please use the following Read codes for blood pressure measured in community settings:-

- Blood pressure recorded by pharmacy: EMISNQBL39
- Blood pressure recorded in community (e.g. health trainer, fire and rescue services): EMISNQBL40