BIOS | Medical

How to Take Reliable Blood Pressure Measurements

Your blood pressure can vary based on numerous factors, physiological conditions, and your surroundings.

Follow these guidelines below to obtain accurate/reliable and error-free measurements of your blood pressure and pulse rate:



1. Measure at the same time each day to ensure comparable data. In the morning before breakfast, 2 hours after dinner, before taking medication.



2. Empty your bladder (if necessary).



3. Avoid coffee and smoking within the hour, no exercise 30 minutes before measuring.



4. Rest quietly for 5 minutes. Remain clam and quiet



5. Do not speak while taking the measurement.



6. Take measurements on the non dominant arm.



7. Sit with legs uncrossed so as not to restrict blood flow.



8. Sit with back supported and measurement arm resting on a table. Sit with feet flat on the floor.



9. Place the cuff at the midpoint on the upper arm, approximately 2 - 3 cm above the elbow. The hose should be in-line with the brachial artery.

10. Ensure that the cuff is level with the heart while the arm is supported on the table.

How to Determine “Real” Average Blood Pressure

Self monitoring is now recognized as more accurate than clinical measurements for a few reasons. First, people are more relaxed which eliminates white coat syndrome. Second, results from several studies have demonstrated that routine manual measurements by medical professionals are often innacurate.1 Third, home measuring provides lots of high-quality data which are more representative of the real state of a persons blood pressure.

To determine ones “real average” blood pressure, measure 4 times a day at set times, for 7 consecutive days.

Readings 1 & 2

Take two readings (60 seconds apart) in the morning before breakfast or coffee, after the bladder has been emptied.

Readings 3 & 4

Take two additional readings in the evening (60 seconds apart), two hours after dinner and at least 30 minutes after exercise, smoking, or ingesting alcohol or caffeine.

How to Take BP Properly:

1. Relax for 5 minutes before taking measurements.
2. Do not move or speak during the measurement
3. Keep feet flat on the floor and legs uncrossed
4. Ensure the back is supported (use a chair and lean back)
5. Keep the arm supported (on a kitchen table for instance)
6. The cuff should be at heart level (use a pillow to lift if necessary)

A patient's real average blood pressure is based on the average of all systolic numbers, and diastolic values, averaged separately, without the first day's data. This “7 Day Protocol” is the gold standard for measuring BP accurately and is in guidelines for Home Monitoring as outlined by Hypertension Canada, the American Heart Association, and the European Hypertension Society.

Source:

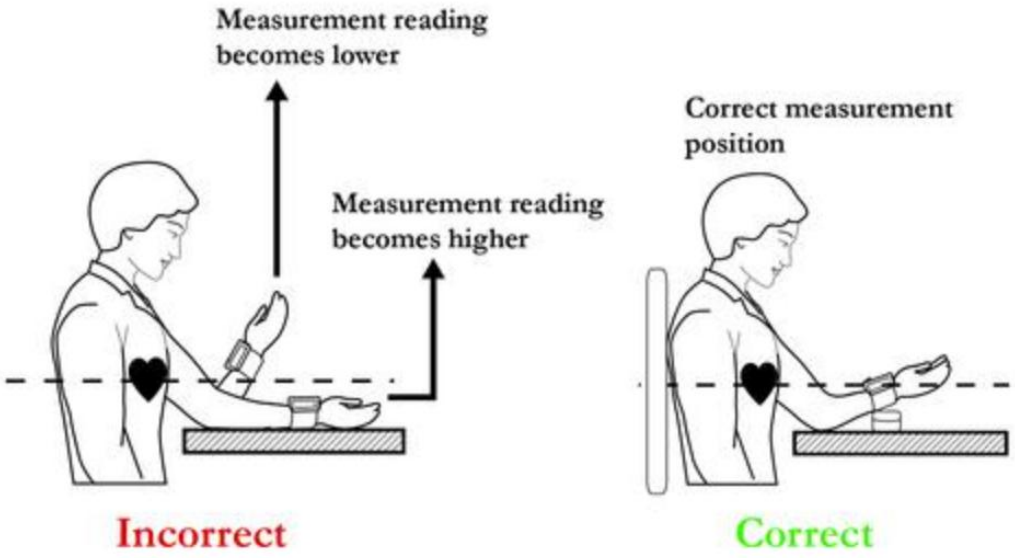
1. Canadian Journal of Cardiology 2015 Vol 31, p620-630

Wrist Monitoring

Proper cuff fit can be challenging for many patients. This can be true not only for patients with mobility or strength issues, but also for patients with larger or very slender arms. For these patients, a wrist blood pressure monitor is a perfect alternative to a standard upper arm cuff reading.

In fact, 2018 Hypertension Canada guidelines indicate that for patients with large arm circumference, when standard upper arm measurement methods cannot be used, validated wrist devices (used with the arm and wrist supported at heart level) may be used for BP estimation. *

How to take a proper wrist blood pressure reading:



** Hypertension Canada 2018 Guidelines*