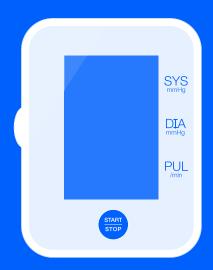
# The Livongo Guide to Blood Pressure Monitor Accuracy

High blood pressure can be difficult to monitor and treat because it can vary widely throughout the day depending on exercise, food, and drink. Improper testing technique can also result in inaccurate readings, further contributing to this confusion. This guide is designed to help you use your blood pressure monitor with confidence.



#### WHY IS ACCURACY SO IMPORTANT?

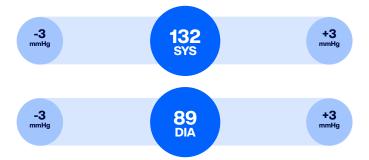
Since doctors often rely on data from a patient's home blood pressure monitor to track their progress, inaccurate measurements can lead to false assumptions, misguided advice, and, in some cases, unnecessary prescriptions. So it's critically important to ensure that your blood pressure readings are as accurate as possible.

#### WHAT DO WE MEAN BY ACCURATE?

All blood pressure devices are not created equal. Livongo is one of the few virtual care companies with a blood pressure device that has been validated for clinical accuracy. The American Medical Association (AMA) and American Heart Association worked together to develop Validated Blood Pressure Device Listing (VDL). Choosing a blood pressure device like the one used by Livongo that meets these criteria means providers and patients can have peace of mind with at-home blood pressure readings.

## HOW ACCURATE IS THE LIVONGO BLOOD PRESSURE MONITOR?

The blood pressure monitor technology used by Livongo has been clinically validated to be within +/- 3 mmHg of actual blood pressure. To validate, we followed the FDA-recognized international standard (ISO 80601-2:2013) and checked the blood pressure of 85 subjects three times each. Those readings were checked against a clinical-grade sphygmomanometer as



If your systolic blood pressure (the top number) is 132, the accuracy range is 129–135. If your diastolic blood pressure (the bottom number) is 89, it would be considered accurate if your clinical measurement is between 86–92.

measured by two observers. To meet performance requirements, the readings can only vary by a certain amount depending on the testing method.

## HOW ACCURATE ARE OTHER HOME BLOOD PRESSURE MONITORS?

Among 3,700 cuff-based blood pressure devices on the market, less than 15% have published evidence on accuracy. In 2017, a study done by researchers at the University of Alberta in Calgary in Canada tested dozens of home blood pressure monitors used by 85 patients over the age of 66. The study found that the monitors missed the mark by 5 mmHg or more about 70% of the time. The devices were off by 10 mmHg or more about 30% of the time.\*

#### 8 TIPS TO ENSURE THE MOST ACCURATE READINGS POSSIBLE

The most common reason for inaccurate readings is improper testing technique. The Livongo mobile app gives you step-by-step instructions on how to properly measure your blood pressure. But if you need a reminder, just print this out and keep it with your monitor:



 Empty your bladder. Then sit down with your feet flat on the floor and your back supported.



5. Make sure your arm is supported, straightened at your side, and palm up. Align the Φ marker (located to the right of tube exit) with the center of your arm.



Wait 5 minutes before taking your first reading, and don't talk or move during the measurement.



6. Pull the end of the cuff so that it's snug, but not too tight. You should be able to slip two fingertips under the bottom edge of the cuff.



Make sure your arm is supported on a stable surface, perpendicular to the floor, at heart level, and your palm upward.



 Make sure your skin doesn't pinch when the cuff inflates.



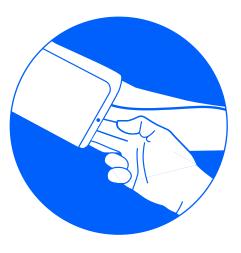
4. Put the cuff around your bare upper arm, directly on the skin and not over clothing, an inch above the bend in your elbow.



8. Take a few readings. (If your reading is high and you think it might be wrong, relax for a few minutes, and try again.)

# HOW TO KNOW WHETHER YOUR ARM CUFF FITS PROPERLY

A blood pressure cuff that's too big will give falsely low readings, while a cuff that's too small will give readings that are falsely high. Your cuff should feel snug, but not so tight that you can't fit two fingers under the bottom edge of the cuff. If your blood pressure cuff doesn't fit properly, please call Livongo Member Support at (800) 945-4355.



### **TOP 4 LIFESTYLE FACTORS THAT CAN LEAD TO HIGHER READINGS:**



Caffeine



2. Stress



3. Tobacco



4. Alcohol

## STILL THINK YOUR BLOOD PRESSURE MONITOR IS INACCURATE?

Set up a "nursing blood pressure check" at your doctor's office (which often doesn't require a co-pay), and bring your blood pressure monitor. You can compare readings on your monitor to the nurse's readings. If they're within 5 mmHg, then the blood pressure monitor is considered accurate.

