

Home Blood Pressure Monitors

Approximately 40% to 50% of adults in the United States have hypertension (high blood pressure). One very important part of managing this disease is monitoring blood pressure. Patients have blood pressure checked at each physician visit, but there are many benefits to patients taking their own blood pressure at home. Patients may feel more in control of their disease, and treatment and medication changes may be made based on these results. There are several things to think about when considering home blood pressure monitors.

Picking the Best Monitor for You

- Select a cuff that fits comfortably. You should be able to slide one finger under the cuff and the lower edge should be one inch above your elbow. Larger/smaller cuffs may be ordered.
- Select the type that best suits your needs:
 1. Automatic arm cuff - fits around the upper arm and automatically inflates. This type may not work for some people who have irregular heartbeats.
 2. Manual arm cuff - readings automatically display, but you must inflate the cuff by pumping a bulb.
 3. Wrist monitors - very convenient, but usually more expensive than other monitors, and slightly less consistent.
 4. Fingertip monitors - considered slightly less reliable than other models.
- Other things to consider: Is the digital display large enough for you to read easily? Does the machine have the ability to store blood pressure values in its memory or will you need to keep these records?

Before Taking Your Blood Pressure

- You want to sit quietly for a few minutes before taking a blood pressure.
- Sit up straight with feet flat on the floor. Do not cross your legs or your ankles.
- Wait at least half an hour after eating, drinking caffeinated drinks, smoking, or exercising in order to get the most accurate reading.

Taking Blood Pressure

- Roll up the sleeve on your arm or remove any tight-sleeved clothing.
- For arm models rest your arm on a table with your palm facing upwards. For wrist models keep your wrist level with your heart.
- Avoid talking while taking your blood pressure.
- May repeat blood pressure after a few minutes.
- It is important to check the blood pressure readings from your home machine with your physician at least once or twice a year, or more frequently if the machine is dropped or if blood pressure readings change suddenly.

What Blood Pressure Numbers Mean

The readings from the blood pressure machine indicate how hard your heart is working to pump blood. The top number (systolic pressure) indicates the pressure while the heart pumps and the bottom number (diastolic pressure) indicates the pressure between heartbeats. The goal is to have blood pressure below 120/80.

How to Reduce Blood Pressure

There are several dietary and lifestyle changes that can be made to decrease blood pressure. These include weight loss, decreased sodium intake, increased exercise, stop smoking, and increased consumption of fruits and vegetables. There are many other things you can do to help control your blood pressure, just ask your healthcare professional.

**Detail-Document #200212**

–This Detail-Document accompanies the related article published in–

PHARMACIST'S LETTER / PRESCRIBER'S LETTER

February 2004 ~ Volume 20 ~ Number 200212

Blood Pressure Monitor Comparison

Product	Manufacturer Contact	Retail Price as of January 2004	Comments
Type: ARM AUTOMATIC			
Healthometer Automatic Digital BPM 7631	www.healthometer.com or (800) 672-5625	\$90	Products rated most highly by <i>Consumer Reports</i> in this category (and overall): ¹ <ul style="list-style-type: none"> • Omron HEM-711AC • Omron HEM-712C, HEM-712CLC • ReliOn HEM-741CREL (Manufactured as the house brand for many chains) • Lifesource One Step UA-767V, UA-767VL
Lifesource One Step Autoinflation BPM UA-767V, UA-767VL	www.lifesourceonline.com or (408) 263-5333	\$90	
Lifesource Quick Response BPM w/Easycuff UA-787V	www.lifesourceonline.com or (408) 263-5333	\$110	
Lumiscope Automatic Inflation BPM 1085 M or MC	(732) 254-3800	\$100	
Lumiscope Smartinflate Blood Pressure & Pulse Monitor 1095	(732) 254-3800	\$130	
Mark of Fitness Auto-Inflate BPM with IQ system MF-43	www.markoffitness.com or (732) 842-7200	\$54	
Omron Automatic BPM with Intellisense HEM-711AC	www.omron.com or (847) 680-6200	\$110	
Omron Automatic BPM HEM-712C, HEM-712CLC	www.omron.com or (847) 680-6200	\$84	
ReliOn Automatic BPM HEM-741CREL (Manufactured by Omron)	www.omron.com or (847) 680-6200	\$46	
Type: ARM MANUAL			
Lifesource Manual Inflation BPM UA-702V, UA-702VL	www.lifesourceonline.com or (408) 263-5333	\$52	Products in this category equally rated by <i>Consumer Reports</i> . ¹
Lumiscope Semi-Automatic BPM 1060	(732) 254-3800	\$60	
Type: WRIST AUTOMATIC			
Lifesource Wrist Ultra Compact BPM UB-401	www.lifesourceonline.com or (408) 263-5333	\$120	Product rated most highly by <i>Consumer Reports</i> in this category: ¹ <ul style="list-style-type: none"> • Omron HEM-637
Lumiscope Fuzzy Logic Automatic Inflation BPM 1091	(732) 254-3800	\$100	
Mark of Fitness Wristwatch style BPM with IQ system MF-75	www.markoffitness.com or (732) 842-7200	\$65	
Omron Portable Wrist BPM HEM-629	www.omron.com or (847) 680-6200	\$84	
Omron Wrist BPM with APS HEM-637	www.omron.com or (847) 680-6200	\$150	

More . . .

Home Monitoring of Blood Pressure

Hypertension is among the most common disease states in America, with approximately 50 million people affected. The most recent guidelines for management of hypertension (JNC-7) indicate that patient self-monitoring of blood pressure is helpful in delaying need for drug therapy, and provides especially helpful data in smokers due to acute changes smoking exerts on blood pressures.² In order to obtain optimal management of hypertension blood pressure must be monitored frequently. Home monitoring of blood pressure is an important step in both improving outcomes and involving patients in their disease state management.

Patients must be educated in how to take a blood pressure as well as what the values mean. Patients may often need assistance selecting the best monitor for them. Some patients may not have the manual dexterity to pump a manual cuff while other patients may have irregular heartbeats that affect the ability of an automatic cuff to accurately measure blood pressure.³ Patients should be encouraged to keep records of at home pressure readings and compare them to values obtained in physician offices to help identify possible white coat hypertension or poorly controlled hypertension.

There are several issues for consumers to consider when selecting a blood pressure monitor. The table above lists information about some of the top selling monitors. It is important to note that the wrist and finger models are considered less accurate than the arm models and that issue should be discussed with patients. Also patients need to be counseled regarding selection of proper sized cuffs to ensure accurate measurement.

**This document was prepared by Kelly M. Shields, Pharm.D.*

Users of this document are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and Internet links in this article were current as of the date of publication.

References

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3. American Academy of Family Physicians. Blood Pressure Monitoring at Home. Available from <http://familydoctor.org/x1605.xml>. (Accessed January 20, 2004).

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