

CHOOSING A HOME BLOOD PRESSURE MONITOR FOR YOUR PRACTICE AT-A-GLANCE COMPARISON



LEGEND: **Y** = YES **N** = NO

				DEVICE FEATURES							DATA/TECHNOLOGY FEATURES		
DEVICE MANUFACTURER	DEVICE NAME	RETAIL PRICE (Per Device)	ON U.S. VALIDATED DEVICE LISTING	UPPER ARM DEVICE	LARGE CUFF SIZE	XL CUFF SIZE	AC ADAPTER AVAILABLE	NUMBER OF USERS	MEMORY STORAGE CAPACITY (measurements per user)	AVERAGING CAPABILITY	BLUETOOTH-ENABLED SELF-REPORTING	INTEGRATES WITH VENDOR-NEUTRAL SMARTPHONE APP	CELLULAR DATA TRANSMISSION OPTION
					(arm circumference range in inches)								
A&D Medical	Essential Blood Pressure Monitor (UA - 611)	\$30	*	Y	8.6 - 16.5 and 12.2 - 17.7	N	Y	1	15	N	N	N	N
A&D Medical	Essential Blood Pressure Monitor (UA-651)	\$35	*	Y	8.6 - 16.5 and 12.2 - 17.7	N	Y	1	30	N	N	N	N
A&D Medical	Manual Inflate Blood Pressure Monitor (UA-705V, UA-705VL)	\$53	Y	Y	9.4 - 14.2 and 14.2 - 17.7	N	N	1	30	N	N	N	N
A&D Medical	Wireless Blood Pressure Monitor (UA-651BLE)	\$61	*	Y	8.6 - 16.5 and 12.2 - 17.7	N	Y	1	30	Y	Y	Y	N
A&D Medical	Premium Blood Pressure Monitor (UA-767F)	\$62	*	Y	8.6 - 16.5 and 12.2 - 17.7	N	Y	4	60	N	N	N	N
A&D Medical	Talking Blood Pressure Monitor (UA-1030T)	\$83	Y	Y	9 - 14.6 and 12.2 - 17.7	N	Y	1	90	Y	N	N	N
A & D Medical	Ultraconnect Wireless Blood Pressure Monitor (UA-1200BLE)	\$90	Y	Y	8.6 - 16.5	N	Y	5	100	Y	Y	N	N
BodyTrace	Cellular Blood Pressure Monitor (BT105)	\$80	Y	Y	8.75 - 16.5	N	N	1	256	N	N	Y	Y
CareSimple	BT105	\$80	Y	Y	8.75 - 16.5	N	N	1	256	N	N	Y	Y
ForaCare	Fora TN'G BP	\$140	Y	Y	9.4 - 16.9	N	N	1	200	Y	Y	N	N
Greater Goods	Greater Goods BP	\$65	Y	Y	8.6 - 16.5	N	Y	2	60	N	Y	N	N
Hillrom-Welch Allyn	Welch Allyn Home Blood Pressure Monitor 1700 Series	\$100	Y	Y	8.75 - 16.5	15.7 - 21.2	Y	1	99	N	Y	Y	N
Microlife	WatchBP Home	\$138	Y	Y	12.6 - 16.5	12.6 - 20.5	Y	1	250	N	N	N	N
Microlife	WatchBP Home A BT (with Atrial Fibrillation detection)	\$150	Y	Y	12.6 - 16.5	N	Y	1	250	Y	Y	N	N
Microlife	WatchBP Home A (with Atrial Fibrillation detection)	\$173	Y	Y	12.6 - 16.5	N	Y	1	250	Y	N	N	N
Microlife	WatchBP Home N (AF detection with nocturnal mode)	\$207	Y	Y	12.6 - 16.5	N	Y	1	250	Y	N	N	N
Omron	Bronze Upper Arm	\$39	Y	Y	9 - 17	N	Y	1	14	N	N	N	N
Omron	BP6100	\$42	Y	N	N/A	N/A	N	1	60	Y	N	N	N
Omron	3 Series Upper Arm	\$50	Y	Y	9 - 17	N	Y	1	14	N	N	N	N
Omron	Silver Wireless	\$51	Y	Y	9 - 17	N	Y	1	80	Y	Y	Y	N
Omron	5 Series - Upper Arm	\$65	Y	Y	9 - 17	N	Y	2	60	Y	N	Y	N

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					(arm circumference range in inches)								
Omron	BP4350	\$69	Y	N	N/A	N/A	N	2	200	Y	Y	Y?	N
Omron	5 Series Upper Arm - Wireless	\$70	Y	Y	9 - 17	N	N	1	60	Y	Y	Y	N
Omron	Gold Upper Arm	\$70	Y	Y	9 - 17	N	Y	2	60	Y	Y	Y	N
Omron	Platinum Upper Arm	\$75	Y	Y	9 - 17	N	Y	2	100	Y	Y	Y	N
Omron	BP6350	\$84	Y	N	N/A	N/A	N	1	90	Y	Y	Y?	N
Omron	7 Series Upper Arm - Wireless	\$90	Y	Y	9 - 17	N	Y	2	60	Y	Y	Y	N
Omron	10 Series Upper Arm - Wireless	\$100	Y	Y	9 - 17	N	Y	2	100	Y	Y	Y	N
Omron	Evolv® Wireless Upper Arm Blood Pressure Monitor	\$100	Y	Y	9 - 17	N	Y	1	100	N	Y	Y	N
Omron	HEM - 9200T	\$100	Y	Y	9 - 17	N	Y	1	100	N	Y	N	N
Omron	HEM - 9210T	\$115	Y	Y	9 - 17	Up to 20	Y	1	100	N	Y	N	N
Omron	Complete Wireless	\$199	Y	Y	9 - 17	N	Y	1	90	N	Y	Y	N
Omron	BP8000-M	\$499	Y	N	N/A	N/A	Y	1	100	N	Y	Y?	N
Smart Meter	iBloodPressure	\$150	Y	Y	8.6 - 17.7	Y	Y	1	--	N	N	Y	Y
Transtek	LS802 - GP	--	Y	Y	8.6 - 16.5	N	N	1	60	N	N	N	Y
Transtek	LS802 - GS	--	Y	Y	8.6 - 16.5	N	N	1	60	N	N	N	Y
Withings	BPM Connect Pro	\$100	Y	Y	9 - 17	N	Y	8	16	Y	Y	Y	Y

* Device currently in the process of validation

NOTES ON DEVICE FEATURES:

- **Retail Price:** Retail price is the cost for a single device and does not reflect discounts that may be available through bulk purchasing. Quality devices, especially those with Bluetooth capability, can be expensive and a financial barrier for some patients. Consider how cost may impact the type or number of devices purchased for a loaner program vs. desired features.
- **On the US VDL:** [The US Blood Pressure Validated Device Listing \(www.validatebp.org\)](http://www.validatebp.org) is a website maintained by the American Medical Association listing blood pressure measurement devices that have been validated for clinical accuracy through an independent review process.
- **Upper Arm Device:** Upper arm devices provide more accurate measurements than wrist devices, which are known to be less accurate due to user technique related errors. National organizations only recommend using wrist cuffs with patients who cannot use an upper arm cuff due to arm circumference or disability.
- **Cuff size:** Using a blood pressure cuff that is too large or too small can result in inaccurate blood pressure readings. Standard/Large cuffs fit arm sizes between 8.75" – 16.5" in circumference. Extra-large (XL) cuffs fit arm sizes >16". Some XL cuffs have an upper limit of 20", others 21.25", and others close to 24". These differences may be important depending on one's patient population; 50% of health center patients required XL cuff sizes among the 10 health centers that participated in the NACHC Accelerating SMBP project. Choosing a home blood pressure device with a XL cuff option may support more patients benefiting from its use.
- **AC Adaptor:** An AC adapter allows the device to be charged and/or operated by plugging in to an electrical outlet vs. solely on batteries. Batteries can be expensive, require periodic replacement, and could expire when a patient has the device loaned out.
- **Number of Users:** The option to track additional users may be helpful for households with multiple patients using a home blood pressure device. It reduces the need to purchase or loan multiple devices to one household for the patients to measure their blood pressure.
- **Memory Storage Capacity:** This feature is most important for devices without Bluetooth or cellular data transmission capabilities. Blood pressure measurements that are not transmitted electronically may need to be saved in the device's memory storage to share with the care team at the next visit. Memory storage is also a benefit in devices that electronically transmit data in case of a transmission failure (provides a record of recorded BP measurements). SMBP protocols for clinical decision-making require two measurements, AM and PM for up to seven days (28 readings); thus, if using a non-Bluetooth/cellular device as part of an SMBP protocol, consider a storage capacity of at least 30 measurements. Most Bluetooth-enabled devices allow for an unlimited number of measurements to be stored in the app on the user's smartphone.
- **Averaging Capability:** Averaging means that the device takes multiple blood pressure measurements, usually two or three, during a single session and averages these measurements into one value. Blood pressure measurements can fluctuate for various reasons related to technique, a patient feeling anxious, or physiologic variability. Averaging capability helps to balance potential outlier readings for a better assessment of the patient's blood pressure levels. Mobile apps may also allow for averaging over the last 7 or 30 days. An app that allows for the averaging of multiple days of measurements eliminates the need for manual calculations by the care team.

NOTES ON DATA/TECHNOLOGY FEATURES:

- **Bluetooth-enabled Self-reporting:** Bluetooth allows for short-range data transfer between devices. A device with Bluetooth-enabled self-reporting transmits blood pressures measurements electronically directly from the device over Bluetooth to a mobile app, which transmits the measurements using cellular data or Wi-Fi (Internet connection) to a monitoring dashboard, and/or clinical portal. Pros are that practices can monitor patterns of patient blood pressure data and patients cannot manipulate their blood pressure measurements. Cons are that Bluetooth devices require an app to send data via Wi-Fi or cellular networks; some may need broadband or high-speed internet access to connect or stay connected with the user's smartphone, which may not be available in rural areas or affordable for all patients. Devices that directly transmit data could inadvertently transmit measurements that do not belong to the patient (e.g., if a family member uses and forgets to switch the user).
- **Apps:** Most Bluetooth-enabled home blood pressure monitors connect via Bluetooth to a smartphone app. These apps allow the user to see charts of their own blood pressure measurements and also may transmit the data to a monitoring dashboard/clinical portal at a practice. Most vendors sell devices with a proprietary app that must be used with their product. However, some devices also have an application programming interface (API) that allows for data to flow into a vendor-neutral or non-branded general app, e.g., Sphygmo. This may be important if a practice chooses multiple brands of devices and wants all of their patient data to be consolidated into one app and one monitoring dashboard/clinical portal. In this case, consider a device that will also work with a vendor-neutral app.
- **Monitoring Dashboards/Clinical Portals:** Most Bluetooth-enabled home blood pressure monitors connect wirelessly to a mobile app, which, in turn, transmits data to a monitoring dashboard/clinical portal via a cellular data or a Wi-Fi network. These dashboards/portals allow care teams access to patient home blood pressure measurements between visits. Practices can reach out quickly to patients to follow up if data are not being received as expected, to titrate medications telephonically, or to monitor values that are very high or low. A vendor-specific dashboard/portal will only receive data from their brand of devices. Some dashboards can be exported into different file types, e.g., .pdf, .xls., .xlsx, and .csv, and some can be configured to integrate data directly into a population health management or EHR system.
- **LTE/cellular network connected:** Cellular service can be beneficial for users in areas without broadband Wi-Fi or areas with satellite Wi-Fi service that is not always reliable. Pros are that cellular service is already programmed and does not require additional setup, syncing, or apps that may pose a challenge to the user. Cons are that cellular home blood pressure devices may require the purchase of a remote patient management hub or a subscription to a cellular data plan by the practice/patient/insurer.

At-a-Glance Comparison provides a high-level overview of select home blood pressure monitor devices. This resource is designed to assist your organization in selecting a home blood pressure monitor device for purchase. Individual research and, if possible, hands-on demonstration of the devices are highly recommended before selecting a device for purchase. All At-a-Glance information is current as of 05/01/2022.

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