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Ohio Cardiovascular Health Collaborative



In partnership with



Accurate Blood Pressure Measurement - Ambulatory

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Topics Covered

- Strength of evidence for recommendation and use of out-of-office and home blood pressure measurement

Class of Recommendation and Level of Evidence for Out-of-Office BP Measurement

- Most recent recommendations from the 2017 ACC/AHA Hypertension Guideline gives high level evidence rating for the use of out of office BP measurements
- The use of HBPM is also recommended by the USPSTF to confirm the diagnosis of hypertension

COR	LOE	Recommendation
I	A ^{SR}	Out-of-office BP measurements are recommended to confirm the diagnosis of hypertension and for titration of BP-lowering medication, in conjunction with telehealth counseling or clinical interventions.

SR indicates systematic review.

2017 ACC/AHA Guideline

Out-of-Office BP Measurement

- Rationale:
 - Provides a better risk prediction than office-based monitoring
 - Correlates better with target organ damage, e.g. LVH, albuminuria

Uses and Advantages

- Helps identify WCH and masked hypertension
- Multiple readings throughout the day may reveal patterns in blood pressure and periods when control is inadequate
- Improves patient adherence
- Reduces costs
- Take readings 1 week per month, 2 readings in the AM and PM, throw out the first day and get 24 values for a week q month

Corresponding Values of SBP/DBP for Clinic, HBPM, Daytime, Nighttime and 24-Hour ABPM Measurements



Clinic	HBPM	Daytime ABPM	Nighttime ABPM	24-Hour ABPM
120/80	120/80	120/80	100/65	115/75
130/80	130/80	130/80	110/65	125/75
140/90	135/85	135/80	120/70	130/80
160/100	145/90	145/90	140/85	145/90

ABPM = ambulatory blood pressure monitoring; BP = blood pressure; DBP = diastolic blood pressure; SBP = systolic blood pressure; HBPM = home blood pressure monitoring



2017 ACC/AHA Guideline
 Muntner P, et. al. Rationale for ambulatory and home blood pressure monitoring thresholds in the 2017 American College of Cardiology/American Heart Association guideline. Hypertension. 2018;73:33-38

