

## Blood Pressure Classification (ACC/AHA 2017)

Blood pressure, expressed in millimeters of mercury (mm Hg), is a measure of how hard the heart is working to maintain end organ perfusion, and can be measured using a blood pressure cuff, or a sphygmomanometer. High blood pressure, or hypertension, can increase risk of cardiovascular disease, stroke and other end-organ damage. Hypertension is one of the most common reasons for office visits and medication use in the United States. To be diagnosed with hypertension, a patient should have two readings done at two separate outpatient visits, that are at least two weeks apart. Normal blood pressure is defined as a systolic <120 and a diastolic <80. There are multiple stages of hypertension as follows. According to the 2017 American College of Cardiology (ACC) and American Heart Association (AHA) guidelines, elevated blood pressure is defined as a systolic between 120-129 AND a diastolic <80. Stage 1 hypertension is defined as either a systolic pressure over 130, but less than 139, OR diastolic pressure between 80 and 89. Stage 2 hypertension is a systolic pressure over 140 OR a diastolic pressure over 90. Lastly, a hypertensive crisis occurs when a systolic blood pressure is over 180 AND/OR a diastolic over 120. Of note, these guidelines are still up for debate and some experts are still utilizing the older recommendations for exact cut-off values. Remember to educate patients that high blood pressure is called hypertension and health care providers will use the terms interchangeably.



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### Classifications

#### Normal

##### Normal BP-cuff

Routine screening of these patients should be continued at every checkup to ensure that it remains in the normotensive range.

#### Systolic Less than 120

##### Heart-squeeze Less-than 120

In normotensive patients, the systolic blood pressure is below 120 mm Hg.

#### Diastolic Less than 80

##### Dice Less-than 80

In normotensive patients, the diastolic blood pressure is below 80 mm Hg.

#### Elevated

##### Elevator

A patient's blood pressure is considered elevated when the systolic pressure is between 120 and 129 mm Hg and diastolic is less than 80 mm Hg.

These patients should be managed with diet and lifestyle modification, such as following the DASH diet, decreasing dietary sodium intake, moderation of alcohol, weight loss in overweight or obese patients, and smoking cessation.

#### Systolic +10 (120-129)

##### Heart-squeeze plus (10) Tin

Elevated blood pressure is classified as systolic pressure between 120 and 129 mm Hg, AND a diastolic pressure less than 80 mm Hg.

### **Diastolic Less than 80**

#### **Dice Less-than 80**

A patient's blood pressure is considered elevated when their systolic pressure is between 120 and 129 mm Hg, AND a diastolic pressure less than 80 mm Hg.

### **Stage 1 Hypertension**

#### **Hiker-BP with (1) Wand**

Clinical hypertension is broken down into two stages; Stage 1 and Stage 2. Patients diagnosed with Stage 1 hypertension can often be treated with a single agent, such as a thiazide diuretic, calcium channel blocker, ACE inhibitor, or ARB.

### **Systolic +10 (130-139)**

#### **Heart-squeeze plus (10) Tin**

Patients with Stage 1 hypertension have either a systolic pressure from 130 mm Hg to 139 mm Hg, OR diastolic pressure between 80 and 89 mm Hg.

### **Diastolic +10 (80-89)**

#### **Dice plus (10) Tin**

Patients with Stage 1 hypertension have either a systolic pressure from 130 mm Hg to 139 mm Hg, OR diastolic pressure between 80 and 89 mm Hg.

### **Stage 2 Hypertension**

#### **Hiker-BP with (2) Tutu**

Clinical hypertension is broken down into two stages; Stage 1 and Stage 2. Patients diagnosed with Stage 2 hypertension often require treatment with two or more agents, such as a thiazide diuretic, calcium channel blocker, ACE inhibitor, or ARB.

### **Systolic +40 (140-179)**

#### **Heart-squeeze plus (40) oz**

Patients with Stage 2 hypertension have a systolic pressure between 140 mm Hg and 179 mmHg, OR a diastolic pressure between 90 and 119 mm Hg.

### **Diastolic +30 (90-119)**

#### **Dice plus (30) Dirty-bum**

Patients with Stage 2 hypertension have a systolic pressure between 140 mm Hg and 179 mmHg, OR a diastolic pressure between 90 and 119 mm Hg.

### **Hypertensive Crisis**

#### **Hiker-BP Crying-crisis**

Patients with a systolic blood pressure greater than or equal to 180 mm Hg AND/OR diastolic blood pressure greater than or equal to 120 mm Hg are considered to have hypertensive urgency if they are asymptomatic, or hypertensive emergency if they are symptomatic and have signs of end-organ damage. These patients require treatment with PO or IV medications, such as nitrates, calcium channel blockers, and beta-blockers.

### **Systolic greater than or equal to 180**

#### **Heart-squeeze Greater than or Equal to 180**

Patients with a systolic blood pressure greater than or equal to 180 mm Hg AND/OR a diastolic greater than or equal to 120 mm Hg are considered to have hypertensive urgency if they are asymptomatic, or hypertensive emergency if they are symptomatic and have signs of end-organ damage.

### **Diastolic greater than or equal to 120**

#### **Dice Greater than or Equal to 120**

Patients with a systolic blood pressure greater than or equal to 180 mm Hg AND/OR a diastolic greater than or equal to 120 mm Hg are considered to have hypertensive urgency if they are asymptomatic, or hypertensive emergency if they are symptomatic and have signs of end-organ damage.