

# Blood Pressure

Why is measuring blood pressure important?

# Why Blood Pressure?

- Accurate Blood Pressure Measurement is the first step in treating **hypertension** or high blood pressure.
- Primary factor in 68% of heart attacks and 75% of strokes.
- Hypertension is one of the major modifiable risk factors for many cardiovascular diseases



# Definitions



- **Blood Pressure-** measurement of the force exerted by blood against the walls of the arteries
- **Systolic blood pressure-** the pressure in the large arteries when the heart is contracted
- **Diastolic Blood pressure-** the pressure in the large arteries when the heart is relaxed

# Blood Pressure Steps

1. Be seated
2. Center of upper arm at heart level
3. Cuff applied 1" above elbow crease
4. Find radial pulse
5. Inflate cuff until pulse disappears
6. Place stethoscope on brachial artery
7. Slowly let air out
8. Listen for first blood flow sounds – **record systolic** number
9. Continue letting air out until blood flow sounds stop – **record diastolic** number



# Normal Blood Pressure in Adults (18 or older) is:

Range:

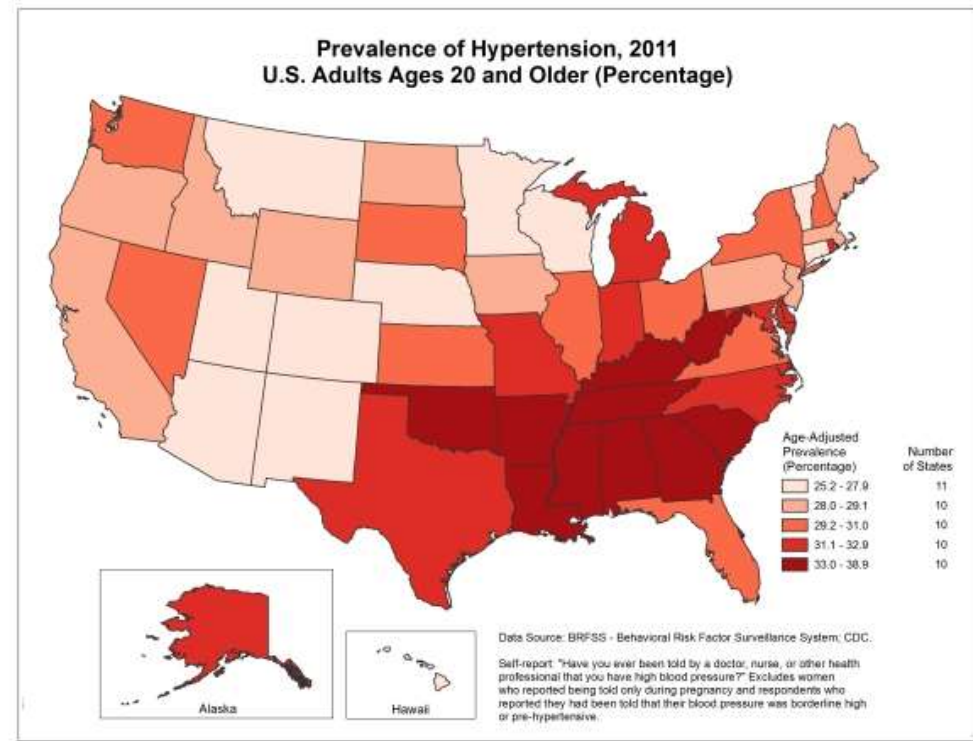
- **110 to 140** systolic pressure

- **70 to 80** diastolic pressure



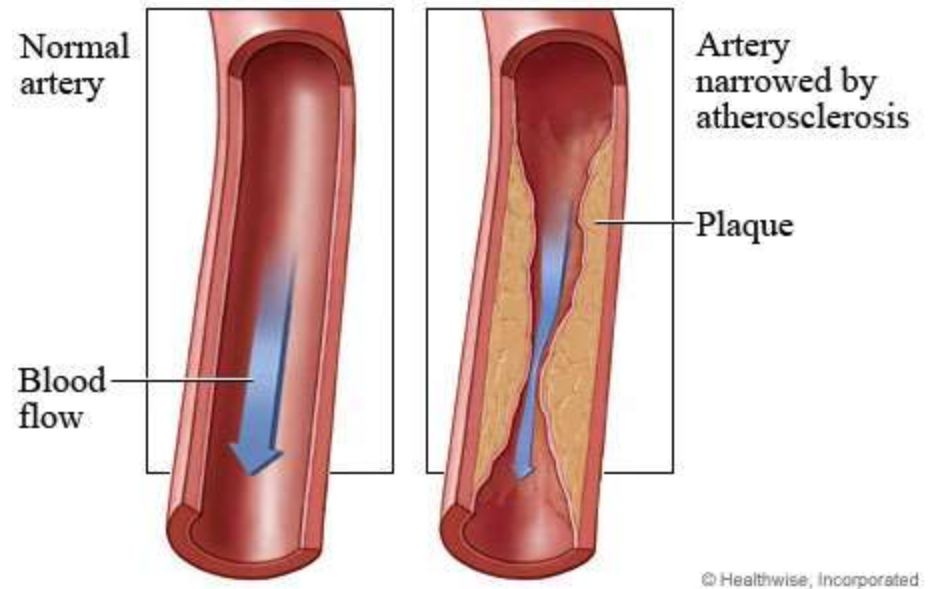
# Hypertension

- Hypertension or **high blood pressure**, is defined as sustained BP of 140/90 plus
- Is a dangerous disease that is caused by resistance to blood flow
- Known as the **silent killer** as it strains the heart & arterial system



# Atherosclerosis

- When arteries are narrowed this is called **atherosclerosis**
- Seems to occur most often in the aorta and the coronary arteries
- This condition causes half of all deaths in the Western world



# Causes of Atherosclerosis

- Damage to the tunica intima by cigarette smoke or any other carbon monoxide source
- Damage by bacteria or viruses
- Persistent hypertension
- High fatty diet & lack of exercise
- This leads to fatty deposits into the lumen of the vessel
- Once fatty deposits inhibit blood flow the condition is now called **arteriosclerosis**