

# High Blood Pressure

## Medications and You

Lowering your pressure. How various hypertension drugs do their job.

### What is blood pressure?

Blood pressure is the force that moves blood through your arteries. Arteries are the blood vessels that carry blood from your heart to the rest of your body. High blood pressure is when your blood pressure is usually higher than it should be. It is also called **hypertension**.

### How are medications administered?

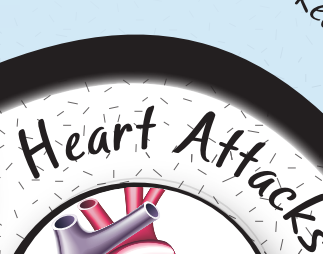
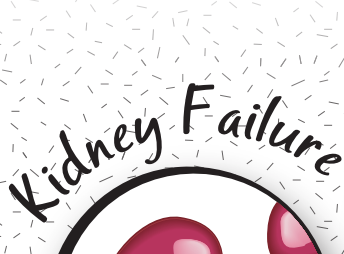
Blood pressure medication should begin to work within days. Once started, the medication should be used until your doctor tells you to stop.



### What can occur if not treated?

High blood pressure often has no symptoms. It is considered a silent condition.

Over time, high blood pressure can cause:



Talk with your doctor about how often to have your blood pressure checked.

### Types (Classes) of High Blood Pressure Medicines

There are currently **nine types of medications** that treat high blood pressure:

- 1. Centrally-Acting Alpha Adrenergics**  
lower blood pressure by decreasing certain chemicals in the blood; therefore, relaxing blood vessels and enabling the heart to beat slowly and easily.
- 2. Beta Blockers**  
target beta receptors that are found on cells of the heart muscles, smooth muscles, and other tissues. Beta blockers mainly work to weaken the effects of stress hormones on the heart.
- 3. Calcium Channel Blockers**  
disrupt the movement of calcium through channels into blood vessels and heart cells; allow blood vessels to relax and heart to beat more easily and/or slowly.
- 4. Peripherally Acting Alpha-Adrenergic Blockers**  
stop hormones from tightening the muscles in the walls of smaller arteries. By causing the arterial vessels to remain open and relaxed, these drugs improve blood flow and lower blood pressure.
- 5. Vasodilators**  
help widen blood vessels, which results in relaxation of smooth muscle cells within the vessel walls. When blood vessels dilate, the flow of blood is increased due to a decrease in resistance. This dilation of arterial blood vessels decreases blood pressure.
- 6. Angiotensin-Converting Enzyme (ACE) Inhibitors**  
slow the production of a hormone (angiotensin II) that narrows blood vessels, causing dilation of blood vessels and lowering blood pressure.
- 7. Angiotensin II Receptor Blockers**  
block the effect of the angiotensin II hormone on blood vessels; are alternatives to ACE inhibitor therapy.
- 8. Renin Inhibitors**  
block the enzyme renin in the ultimate production of angiotensin II.
- 9. Diuretics** (sometimes called water pills)  
help rid your body of salt and water. They work by making your kidneys put more sodium into your urine. The sodium, in turn, takes water with it from your blood. This decreases the amount of fluid flowing through your blood vessels, which reduces pressure on the walls of your arteries.

### Combination Medicines

These are made up of 2 different kinds of blood pressure drugs.

### You may have high blood pressure if you are...

The more areas that describe you, the greater the chance that you may have high blood pressure now or in the future.



- A smoker
- Dealing with sleep apnea
- Physically inactive
- Older than 50 years
- Overweight or obese
- Dealing with diabetes or kidney disease
- Taking more than 2 grams of sodium per day
- African American, Hispanic or Latino/Latina
- A man who drinks more than 1 ounce of alcohol per day
- A woman who drinks more than half an ounce of alcohol per day
- A person whose mother or father has hypertension



U.S. Department of Health and Human Services  
U.S. Food and Drug Administration  
Center for Drug Evaluation and Research  
www.fda.gov

Sources:  
1. U.S. Food and Drug Administration  
2. American Society of Hypertension