

MEDICATION OPTIONS FOR TREATING HIGH BLOOD PRESSURE

High blood pressure is very common for people living with chronic kidney disease (CKD) and is a common cause of kidney failure. So, managing blood pressure is very important for maintaining the health of your kidneys. Many people need one or more medicines to reach their blood pressure goal. This is common and not a personal failure. It often takes two or more medicines that work in different ways. Below is a short guide to the main types.

ACE inhibitors or ARBs

- **How they work:** They relax and widen your blood vessels by blocking a hormone in your body that tightens them. This also lowers the pressure inside your kidneys' tiny filters.
- **Where they fit:** These are usually the first pick when you have kidney disease with protein in your urine, because they lower blood pressure and help protect your kidneys and heart.
- **Good to know:**
 - You'll need a blood test in about 2 to 4 weeks to check your eGFR (kidney function) and potassium.
 - A small decrease in eGFR is normal and to be expected.
 - ACE inhibitors can cause a dry cough; if so, your team may switch you to an ARB.
 - Do not take an ACE inhibitor and an ARB together.
 - Do not use if you are pregnant or may become pregnant.
- **Examples:** names often end in "-pril" (like benazepril, lisinopril, quinapril, or ramipril) or "-sartan" (like irbesartan, losartan, olmesartan, or valsartan)



Thiazide diuretics ("water pills")

- **How they work:** They help your kidneys remove extra salt and water, which lowers blood pressure.
- **Where they fit:** A common first or second medicine for high blood pressure. They pair well with the other medicines listed here.
- **Good to know:**
 - They can lower your body's potassium and sodium, so you may need blood tests after starting the medicine to check everything is okay.
 - You may urinate (pee) more, especially at first. Take the dose earlier in the day so it doesn't wake you at night.
- **Examples:** chlorthalidone, hydrochlorothiazide (HCTZ), indapamide

Calcium channel blockers

- **How they work:** They relax the muscles in your blood vessel walls so blood flows more easily.
- **Where they fit:** A common first or second medicine for high blood pressure. They also pair well with the other medicines listed here.
- **Good to know:** The most common side effect is swelling in the ankles or feet. Blood tests are usually not needed for these medicines.
- **Examples:** amlodipine, felodipine, nifedipine

Other medicines and treatments

- **Aldosterone-lowering/blocking medicines:** Added when blood pressure stays high on at least three medicines (“resistant” high blood pressure). They can raise potassium, so blood tests are needed, especially for people with kidney disease. Examples include spironolactone, eplerenone, and baxdrostat (Baxfendy).
- **Beta blockers:** They slow your heart rate and ease how hard your heart pumps. While they help lower blood pressure, they are generally no longer used solely for this purpose. Instead, they are a top choice when you also have another heart problem, such as chest pain (angina), a past heart attack, heart failure, or a fast heartbeat. Names often end in “-lol” (like metoprolol and carvedilol). They can cause tiredness or a slow heartbeat.
- **Loop diuretics:** A stronger water pill often used in more advanced CKD, heart failure, or other situations when the body holds extra fluid. Examples include furosemide, torsemide, or bumetanide. They can lower potassium or cause dehydration, so blood tests are usually needed.
- **Alpha blockers, central-acting drugs, and vasodilators:** Used less often, usually as add-ons when other medicines aren’t enough. These include doxazosin, prazosin, clonidine, and hydralazine.
- **Newer treatments:** Newer blood pressure medicines and minor surgical procedures are also available for resistant (hard-to-control) high blood pressure. Ask your team if they might be right for you.

Getting the most from your medicines

- **Take medicines every day, even when you feel fine.** High blood pressure usually causes no symptoms. Taking medicines every day helps keep your blood pressure in your goal range.
- **Keep your follow-up appointments.** Medication doses often need to be adjusted over time, and blood tests may be needed to check for safety.
- **Tell your care team about side effects.** Rather than stopping medicines on your own, work with your care team to find a solution.
- **Ask your care team before using NSAID pain relievers.** Examples include ibuprofen or naproxen. These medicines can raise blood pressure and harm the kidneys.
- **Ask if a combination pill is available.** Many of these medicines are available as a single pill combining 2 or more medicines. These may be easier to remember and lower your copays.

When to call your care team

- Very high readings (for example, 180/120mm Hg or above), especially with chest pain, trouble breathing, weakness, vision changes, or trouble speaking. Seek emergency care if you have any of these symptoms.
- Readings that are consistently above your goal.
- New swelling, large weight changes, or bothersome medication side effects.



← To learn more, scan the QR or visit [kidney.org/HighBP](https://www.kidney.org/HighBP)

Developed in
collaboration with



The Mended Hearts, Inc.

For more information, contact the National Kidney Foundation

Toll-free help line: **855.NKF.CARES** or email: nkfcares@kidney.org

