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How ARBs Work

They lower blood pressure and protect the heart and kidneys. What they do, the drugs in the class and what to watch for.

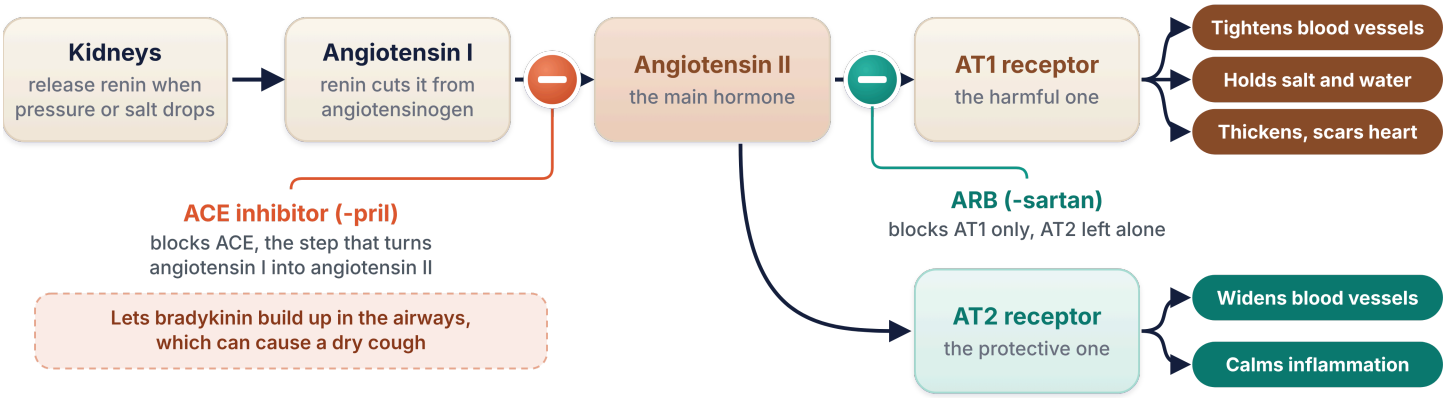
1.1%
stopped an ARB because of cough in the ONTARGET trial, vs 4.2% on an ACE inhibitor

Up to 30%
rise in creatinine, a kidney blood test, is expected and acceptable after starting

7
ARBs in the class. Most are taken once a day, and all come as generics

WHAT THEY BLOCK

One receptor in a hormone chain



Blocking AT1 lowers blood pressure, eases the load on the heart and protects the kidneys.

For most people with high blood pressure, heart failure or kidney disease, this hormone system runs on overdrive. It raises blood pressure, reshapes the heart and damages the kidneys.

WHAT BLOCKING IT DOES

Effects across the body

Blood vessels
Vessel walls relax and widen, so blood pressure falls.

Adrenal glands
Less aldosterone, so less salt is held. Potassium can rise a little.

Heart
A thickened heart can remodel toward normal over months to years.

Kidneys
Filter pressure drops, sparing them the slow damage of high blood pressure and diabetes.

Take it every day

Take it at the same time every day and keep up with the follow-up blood tests. Don't stop it suddenly without talking to your cardiologist, especially if you have heart failure with reduced pumping or kidney disease, where the rebound can be substantial.

LIVING WITH AN ARB

The drugs, the checks and what to watch for

THE SEVEN ARBS

all generic, and for plain high blood pressure any one works

Losartan	The oldest and cheapest. It beat atenolol on stroke prevention in the LIFE trial.
Valsartan	The deepest heart failure evidence, and the ARB in sacubitril-valsartan.
Candesartan, irbesartan	Candesartan has the strongest evidence in heart failure with preserved pumping, a modest benefit. Irbesartan has the deepest evidence in kidney disease from diabetes.
Telmisartan, olmesartan, azilsartan	Telmisartan has the longest half-life. Olmesartan and azilsartan are the most potent milligram for milligram.

BLOOD TESTS AND SIDE EFFECTS

Blood tests	Creatinine (a kidney test) and potassium within 1 to 2 weeks of starting or raising the dose, then periodically. A creatinine rise up to 30% is expected and acceptable. A larger jump is worth a workup before anyone stops the drug.
Potassium	It usually rises modestly, and more with kidney disease, spironolactone or a potassium supplement.
Lightheadedness	Often from a new dose or dehydration. Evening dosing, a lower dose or attention to fluids can help.
Cough and swelling	Less common than on an ACE inhibitor. In ONTARGET, 1.1% stopped the ARB because of cough vs 4.2% on the ACE inhibitor, and 0.1% vs 0.3% stopped because of swelling of the face or throat (angioedema).

WHEN AN ARB IS THE WRONG CHOICE

Pregnancy	ARBs cause severe harm to a developing baby. Use reliable contraception. If you're pregnant or planning a pregnancy, tell your cardiologist right away. The switch to a safer drug should happen before conception when possible.
Narrowed kidney arteries	Narrowing on both sides, or in a single working kidney, risks sudden kidney failure.
Swelling on an ACE inhibitor	About 3.5% react to ARBs too. An ARB may be tried with caution after mild swelling. After severe throat swelling, a different class is safer.
Potassium above 5.5	It should be corrected before starting.
Never with an ACE inhibitor	In ONTARGET the pair caused more harm than benefit.
Throat or tongue swelling	Call 911 for swelling of the throat or tongue, or any trouble breathing. On sacubitril-valsartan the rate is similar to other ARBs, higher in the first weeks after switching from an ACE inhibitor.

CALL YOUR CARDIOLOGIST

Call about an unexplained cough, swelling away from the throat and tongue, lightheadedness, muscle weakness that might mean high potassium, or a pregnancy or planned pregnancy.

READ THE FULL ARTICLE

damianrasch.com/
arbs-how-they-work

For education only, and not a substitute for advice from your own physician. Sources include the ONTARGET, PARADIGM-HF, LIFE, IDNT, IRMA-2, RENAAL, CHARM, Val-HeFT, VALIANT, ACCOMPLISH and FIDELIO-DKD trials and the 2025 AHA/ACC blood pressure guideline.

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