

Heart Failure: ACE Inhibitors



Angiotensin-converting enzyme (ACE) inhibitors are very important medicines for managing heart failure. They relax blood vessels and lower blood pressure. This improves blood flow. Your heart is then able to pump more blood to the rest of your body without working harder.

Examples

- Captopril
- Enalapril
- Lisinopril
- Quinapril
- Ramipril

Some of these medicines may be combined with a diuretic ("water pill"). A diuretic helps your body get rid of extra water. Putting these medicines together in one pill makes it easier to take and gives you the benefit of both drugs. Talk to your doctor to see if this combination may be right for you.

How do ACE inhibitors work?

When you have heart failure, your heart does not pump as well, so opening blood vessels and reducing blood pressure are important. This reduces how hard your heart needs to work. It may help keep blood from backing up in your heart and lungs.

ACE inhibitors block the action of a protein (enzyme) that causes blood vessels to narrow. As a result, blood vessels relax and widen. This lowers blood pressure and makes it easier for your heart to pump blood.

These medicines also help your body release water and salt (sodium), which also helps lower blood pressure.

Why are they used for heart failure?

ACE inhibitors are commonly used for heart failure. They relieve heart failure symptoms, such as fluid buildup and swelling, and help you feel better. They may help you live longer and stay out of the hospital.

You may need to take an ACE inhibitor if you have recently had a heart attack. This is true even if you do not have symptoms of heart failure.

Who should not take an ACE inhibitor?

Do **NOT** take an ACE inhibitor if:

- You had a bad reaction when you took an ACE inhibitor before.
- You have high potassium levels in your blood. An ACE inhibitor can raise potassium levels even more.

- You have very low blood pressure, especially if your low blood pressure makes you feel weak or dizzy when you stand up.
- You are pregnant.
- You have a certain type of kidney problem. ACE inhibitors can make kidney function worse in people with renovascular disease. This is the kind of kidney disease caused by narrowed blood vessels.
- A rash or itching.
- Symptoms like those from allergies.
- An allergic reaction with swelling all over your body.
- High potassium levels, especially in those who have kidney failure.
- Low blood pressure, especially when you first start on ACE inhibitor medicine.

How well do these medicines work?

ACE inhibitors have been shown to:

- Slow how heart failure progresses.
- Improve symptoms.
- Slow the development of coronary artery disease (CAD).
- Lower the risk of stroke.
- Slow down kidney disease.
- Help people live longer.

Your doctor will first give you a low dose of these medicines, then slowly increase how much you take. Doctors do this because studies show it is how to get the best results. Ask your doctor if the dose you are taking is right for you.

Side effects

Side effects may include:

- A dry cough.

If you are taking other medicines, talk with your doctor before you take an ACE inhibitor. This includes medicines you can buy without a prescription, vitamins, herbs, and other supplements. ACE inhibitors may cause a bad reaction with nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs are medicines that reduce swelling, such as ibuprofen, naproxen, and aspirin. ACE inhibitors may also react with antacids, potassium pills, some diuretics, and lithium.

What to think about

Usually, ACE inhibitors cause very few side effects. The most common side effect is an irritating, dry cough.

If you develop a cough from ACE inhibitors, you may be able to use drugs called angiotensin II receptor blockers (ARBs) instead. ARBs are less likely to cause a cough. Discuss this with your doctor.