

## Heart Failure Medicines

The Heart Failure Society of America (HFSA) is a non-profit organization of health care professionals and researchers who are dedicated to enhancing quality and duration of life for patients with heart failure and preventing the condition in those at risk. These educational modules have been developed to help patients, their families, and individuals at risk for heart failure understand and cope with the disease. For more information about the Society please visit our web site [www.hfsa.org](http://www.hfsa.org).



[www.hfsa.org](http://www.hfsa.org)

**Heart Failure Society**  
of America

## Contact Information

Please write down important contact information in the space below. You may also want to share this information with family members and friends.

### Doctor Treating Me for Heart Failure:

Name:

Address:

City:

State:

Zip code:

Phone number:

Fax:

E-mail:

### Other Important Phone Numbers:

Ambulance, fire department, or emergency services: **911**

Pharmacy:

Other doctors or nurses:

## Introduction

Medicines are important in the treatment of heart failure. Research shows that heart failure medicines can help stabilize your heart function. They can also help you:

- Live longer.
- Have fewer symptoms.
- Breathe more easily.
- Have more energy.
- Increase your activity level.
- Have less swelling.
- Stay out of the hospital.

This module provides information on:

- The main types of medicines used for heart failure.
- Common side effects of heart failure medicines.
- Other medicines used to treat heart failure.

It will help you learn about:

- What heart failure medicines do.
- Why it is important to take all of your medicines regularly.
- How to manage common side effects of your medicines.

## General Information about Taking Heart Failure Medicines

Most people with heart failure require several medicines for the best results. It is common for your doctor or nurse to increase the dose of these medicines even if you feel better after starting them. That is because most heart failure medicines work best at certain doses. Their purpose is not only to make you feel better, in the short run, but also to treat the underlying disease and improve your health, in the long run. Therefore, it is important to take all of your medicines at the prescribed doses even if you are feeling better.

If you are taking all of your medicines and feel worse, be sure to tell your doctor or nurse. You may be feeling worse because of heart failure or another illness. You may also be experiencing side effects from your medicines. All medicines can have side effects. The side effects can be mild and hardly noticeable, or they can be bothersome. If you think your pills are causing side effects, tell your doctor or nurse about your symptoms. They will work with you to manage your symptoms and make you feel better. For example, some of your medicines may decrease your blood pressure and make you feel dizzy. Staggering the times you take some of your medicines can decrease this problem.



# Heart Failure Medicines

The main types of heart failure medicines are:

- ACE (angiotensin-converting enzyme) inhibitors
- Beta-blockers
- Digoxin
- Diuretics (water pills)
- Aldosterone antagonists
- ARBs (angiotensin receptor blockers)
- Isosorbide dinitrate/hydralazine

They will be described in the following sections.



# ACE Inhibitor Pills

ACE inhibitors are very beneficial for people with heart failure. Research has shown that ACE inhibitors help people live longer and decrease hospitalizations. They can also decrease symptoms of heart failure and increase your ability to be more active.

ACE inhibitors work by:

- Blocking the effects of harmful stress hormones (substances produced by your body that make heart failure worse).

They also control high blood pressure and prevent heart attacks. However, ACE inhibitors are effective for heart failure even if you do not have high blood pressure.

The full medical name for ACE inhibitors is angiotensin-converting enzyme inhibitors.

## ACE Inhibitors: Management Tips and Common Side Effects

ACE inhibitors usually do not cause a lot of side effects in most people.

But they can make some people feel dizzy. Let your doctor or nurse know if you feel dizzy after you start taking an ACE inhibitor. Starting with a low dose and increasing the amount slowly over time can reduce the chance that you will have this side effect. Because several heart failure medicines can cause dizziness, spacing them out at different times through the day may help. If you feel dizzy when you wake up in the morning, try to:

- Do ankle pumps by moving your feet back and forth about ten times in a row before you stand up.
- Dangle your legs on the side of the bed before sitting. Then sit at the side of the bed for a minute before standing.

## ACE Inhibitor Pills (*cont.*)

Tell your doctor or nurse if you:

- Are dizzy for more than five to ten minutes after you get up.
- Are so dizzy that you have trouble walking around.
- Have fainted.

ACE inhibitors can also cause:

- Problems with your kidneys or potassium level. These problems can be found with blood tests. Ask your doctor or nurse how often you should have your blood checked for these problems.
- Cough. Cough is not uncommon in patients taking an ACE inhibitor. If your cough is due to your ACE inhibitor, your doctor or nurse may lower your dose or change your medicine. The cough may decrease over time. But it may also persist.  
  
You may also have a cough for many other reasons. In fact, worsening heart failure can cause a cough. So do not assume that the cough is due to the ACE inhibitor. If you have a cough, talk to your doctor or nurse about it.
- **Swelling in your lips or throat.** This occurs very rarely, but it is a serious sign. If it happens to you, get medical help immediately. Be sure to tell your doctor or nurse, if you have ever taken medicines that made your lips, tongue, or throat swell up.
- Low blood pressure. Ask how often you should have your blood pressure checked.

## Questions to Ask Your Doctor or Nurse

Am I on an ACE inhibitor?

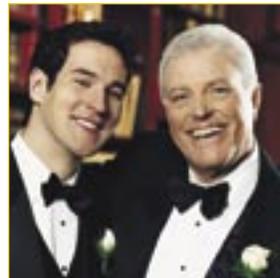
*Reason for asking this question:* ACE inhibitors are very important for people with heart failure. Most people should take an ACE inhibitor unless they can not tolerate this medicine.

Am I taking the right dose of an ACE inhibitor for me?

*Reason for asking this question:* ACE inhibitors are most effective in treating heart failure when the right amount is taken.

Studies have shown that some people with heart failure may not be taking a high enough dose of an ACE inhibitor. So, the medicine may not be helping as much as it could be. Ask your doctor or nurse whether your ACE inhibitor dose is the right one for you.

## Beta-Blocker Pills



Beta-blocker pills are another group of medicines that are very effective for people with heart failure. The long name for these pills is beta-adrenergic blocking agents. Research studies have shown that beta-blockers improve heart function and can help people with heart failure feel better, live longer and go to the hospital less frequently.

Beta-blockers work by:

- Blocking the effects of harmful stress hormones (substances produced by your body that make heart failure worse and contribute to your symptoms).

They also control high blood pressure, prevent heart attacks, and help regulate the heart rhythm. However, beta-blockers are effective for heart failure even if you do not have high blood pressure or an irregular heart rhythm.

## Beta-Blocker Pills (*cont.*)

### Beta-Blockers: Management Tips and Common Side Effects

Beta-blockers can have some side effects. They can make you:

- Feel tired or dizzy. This can happen most often when you first start taking this pill or when your dose is increased. You will probably start on a low dose of a beta-blocker. The dose should be increased until you are taking the right one for you.  
  
Sometimes, it may take a while before people feel better after they start taking a beta-blocker. They may even feel worse for a few weeks. Eventually, most people feel better than before they started taking a beta-blocker. But, if you feel dizzy, see your doctor or nurse, so they can be sure you are on the right beta-blocker dose.
- Have more fluid build up in your body. Be sure to tell your doctor or nurse if you have symptoms of fluid build-up. Keep track of your weight and symptoms. Let your doctor or nurse know if they change. Your doctor can adjust your medications to take care of this problem before it becomes too severe.
- Wheeze or have more shortness of breath. Most of the time, this happens in people with a history of asthma. If you wheeze or get short of breath, tell your doctor or nurse right away.

Beta-blockers can also cause:

- Low blood pressure. Ask how often you should have your blood pressure checked.
- A slow heart rate. Ask how often you should have your heart rate checked.

## Questions to Ask Your Doctor or Nurse

Am I on a beta-blocker?

*Reason for asking this question:* Research shows that beta-blockers help people with heart failure live longer and feel better. This type of medicine should be considered for most people with heart failure. So it is important for you to ask your doctor or nurse if you are taking a beta-blocker.

Am I taking the right dose of a beta-blocker to help my heart failure?

*Reason for asking this question:* Sometimes, people are taking a beta-blocker, but the dose is too low. Asking whether you are taking the right beta-blocker dose for heart failure will help your doctor or nurse consider your particular case.

## Digoxin Pills



Digoxin pills have been used to treat heart failure for years. They improve heart function by making the heart beat stronger and also may help to correct hormonal imbalance that makes heart failure worse. Patients with heart failure breathe more easily and feel better as a result.

Studies show that among patients with heart failure, those taking digoxin go to the hospital less often than patients who are not taking this type of medicine. However, not all people with heart failure need digoxin.

### **Digoxin: Management Tips and Common Side Effects**

Excessive amounts of digoxin may cause:

- Nausea or vomiting.
- Blurred or colored vision.
- Abnormal heart rhythm, which may cause palpitation or black outs.

If you notice any of these problems, call your doctor or nurse right away. They can help decide if you need other treatment.

If you are taking both digoxin and a diuretic (commonly called a water pill), you should:

- Have your blood tested at regular times to check your potassium level and kidney function.





## Diuretics

Diuretics, also called water pills, work by helping your body get rid of extra fluid. Less fluid in your lungs makes breathing easier. Less fluid also means less swelling in other parts of your body. Both of these actions of diuretics will help you feel more comfortable.

Taking your diuretic as directed can decrease the chance that you will have to go to the hospital.

### **Diuretics: Management Tips and Common Side Effects**

Sometimes a diuretic causes people to lose potassium. Potassium is needed for the body to work properly and to ensure that your heart rhythm is okay. Often, patients taking a diuretic need to take potassium pills, too.

If you are taking a diuretic, your blood should be checked periodically to make sure that your potassium level is normal.

Diuretics can also cause people to lose too much fluid, so that they become dehydrated. If you feel dizzy, call your doctor or nurse. While taking a diuretic it is a good idea to weigh yourself daily and go over your weight log with your doctor or nurse to make sure you are not losing too much fluid.

## Questions and Answers About Diuretics

**Question:** Taking a diuretic can make it hard to leave home. How can I go out and still take my diuretic?

**Answer:** For several days pay attention to when you urinate the most after taking your diuretic. The diuretic will work in a similar way each time you take it. Plan your trip away from home at a time when your diuretic is not as active. When you go to a new place, find out where the bathroom is when you first get there.

Another option is to take your diuretic at a different time of day. For example, you could take it several hours before you plan to go out or wait until after you return from your outing to take it.

Do not skip your diuretic when you are away from home.

**Question:** My diuretic causes trouble with my sleep, because I have to get up at night to urinate. Is there anything I can do about that?

**Answer:** Most diuretics are short-acting. That means you will have to go to the bathroom more frequently during the first two to three hours after taking your diuretic. So, take your diuretic in the morning. If you take a diuretic two times a day, take the second dose around 4:00 P.M. That way you will be less likely to have to get up at night.

**Question:** I have leg cramps with my diuretic. What should I do?

**Answer:** This may mean that you are losing potassium with your diuretic. Ask your doctor or nurse if you need a check of your blood potassium level. You may need a potassium supplement.

Do not take a potassium supplement on your own without talking to your doctor or nurse.

**Question:** What if I take my diuretic as directed, but my breathing gets worse, and I have more swelling?

**Answer:** If you notice that you are breathing harder or that you have more swelling in your feet, legs, or hands, call your doctor or nurse right away to let them know. They can decide if your medicine is working or if you need a different amount or kind of medicine.

Weighing yourself everyday can help you know if your diuretic is working. If you gain weight over a few days or week, you may be retaining fluid. You should call your doctor or nurse and let them know. They can determine whether you need a higher dose of your diuretic.

See Module 4: Self-Care: Following Your Treatment Plan and Dealing with Your Symptoms for more information on monitoring and managing weight gain.

**Question:** If I am short of breath only some of the time, should I take an extra diuretic?

**Answer:** Your doctor or nurse may decide it is the right thing for you to do. They will explain exactly when you should take the extra dose and any other treatments you may need. (You may also need an extra dose of potassium.)

Do not take an extra dose of your diuretic without consulting your doctor or nurse first. Removing too much fluid and sodium from your body can make you dehydrated.

## Aldosterone Antagonist Pills

Aldosterone antagonists work by blocking the effects of a stress hormone called aldosterone (a substance which can make heart failure worse). One study shows that people with advanced heart failure who take aldosterone pills live longer and stay out the hospital.

### **Aldosterone Antagonists: Management Tips and Common Side Effects**

Aldosterone antagonists can:

- Cause breast enlargement or tenderness, especially in men.
- Increase potassium levels. Have your blood checked periodically to make sure your potassium level is normal.

## ARB (Angiotensin Receptor Blocker) Pills

ARB pills reduce the impact of certain harmful stress hormones (substances that build up the body of people with heart failure). They have actions similar to those of ACE inhibitors.

ARBs are used less often than ACE inhibitors to treat heart failure. They may be recommended for people who can not tolerate an ACE inhibitor. The full medical name for ARBs is angiotensin receptor blockers.

### **ARBs: Management Tips and Common Side Effects**

Some of the common side effects of ARBs are:

- Dizziness.
- Decrease in blood pressure.
- Problems with your kidneys or potassium level. These problems can be found with blood tests. Ask your doctor or nurse how often you should have your blood checked for these problems.

Talk to your doctor or nurse if these or other side effects are a problem for you.

## Combination Isosorbide Dinitrate and Hydralazine Pills

The combination of isosorbide dinitrate and hydralazine is called a vasodilator because it relaxes blood vessels and eases the work of the heart. The medicine works by supplying nitric oxide to the heart and blood vessels. Nitric oxide is an important substance which is often lacking in people with heart failure. The combination of isosorbide dinitrate and hydralazine may work particularly well in people of African American descent, because they may be somewhat deficient in the production of nitric oxide.

A study completed in 2005 that included only people with heart failure who considered themselves African American showed that people on the combination of isosorbide dinitrate and hydralazine did better than those who were not on the combination medicine. The combination medicine prolonged life, reduced the need for hospitalization, and improved well-being when it was taken with all other prescribed heart failure medicines.

If your doctor prescribes pills with a combination of isosorbide dinitrate and hydralazine for you, it is very important that you continue to take all of your other heart failure medicines so that you can achieve all of the benefits of the new medicine.

### Combination Isosorbide Dinitrate and Hydralazine Pills: Management Tips and Common Side Effects

The combination of isosorbide dinitrate and hydralazine can cause headaches, especially right after you start taking the pills. They may become less intense as you continue to take the pills. Taking acetaminophen can also help with headaches.

Other commonly report side effects of these pills are:

- Dizziness
- Nausea
- Vomiting
- Feeling lightheaded or even fainting if you consume too much alcohol or do not drink enough fluids.

All nitrates, including sublingual nitroglycerin (taken under the tongue) and the combination of isosorbide dinitrate and hydralazine can cause low blood pressure. When nitrates are combined with drugs designed to treat erectile dysfunction, low blood pressure can also occur. Low blood pressure can lead to dizziness, lightheadedness, and fainting.

Talk to your doctor or nurse if the side effects listed or others are a concern.

## Questions to Ask Your Doctor or Nurse



I am African American. Am I on pills with a combination of isosorbide dinitrate and hydralazine?

*Reason for asking this question:* Research shows that pills with a combination of isosorbide dinitrate and hydralazine can help African Americans feel better, stay out of the hospital and live longer. This type of medicine should be considered in addition to other heart failure medicines. So it is important for you to ask your doctor or nurse if you are taking pills with a combination of isosorbide dinitrate and hydralazine.



I am not African American. Can pills with a combination of isosorbide dinitrate and hydralazine help me?

*Reason for asking this question:* Pills with a combination of isosorbide dinitrate and hydralazine were tested in a special study that included only people who considered themselves African American. However, the pills may also benefit non-African Americans. If you still have heart failure symptoms despite taking all of your medicines as prescribed, your doctor may consider prescribing the combination of isosorbide dinitrate and hydralazine for you.



## Other Medicines That May Be Used to Treat Heart Failure



Your doctor may also prescribe other medicines for your heart failure. These medicines are discussed below, along with common side effects.

### Anticoagulant Medicines

Some people with heart failure need anticoagulant medicines (commonly called blood thinners). These medicines help prevent blood clots.

People with heart failure (and their families) should receive specific instructions about caring for themselves while on a blood thinner. They should also be monitored carefully by a doctor or nurse.

If you take a blood thinner, be sure to ask your doctor or nurse about:

- Any activities you should avoid.
- Having your blood checked regularly.

### Potassium Pills

Potassium is an electrolyte your body needs to function properly. Many diuretics (water pills) cause people to lose potassium along with urine. For that reason, some people who take a diuretic need a potassium supplement.

Note that some heart failure patients who have kidney problems, or who are taking an aldosterone antagonist, or an ACE inhibitor along with their regular diuretic may not need extra potassium.

Remember that some salt substitutes contain potassium.

If you are taking a potassium supplement, you should have your blood checked regularly to make sure your potassium level is normal.



# Medicines to Avoid

Always be sure to tell every doctor and nurse you see that you have heart failure. Also tell them about all of the medicines that you are taking, even the over-the-counter ones that do not require a prescription from your doctor.

Certain medicines should only be taken with great caution, because they can make heart failure worse. People with heart failure should be particularly cautious about taking:

- Non-steroidal anti-inflammatory medicines (NSAIDs)
- Calcium channel blockers
- Most antiarrhythmic medicines

These medicines are covered below.

## **Non-Steroidal Anti-Inflammatory Medicines (NSAIDs)**

Non-steroidal anti-inflammatory medicines, sometimes called NSAIDs, are typically used for pain management. You can buy some NSAIDs over-the-counter, while others require a prescription. NSAIDs include medicines such as aspirin, ibuprofen, indomethacin, naproxen, and a number of others.

In general, it would be preferable to use acetaminophen to treat aches, pains, or fever rather than NSAIDs.

## **Calcium Channel Blockers**

Calcium channel blockers are used to treat heart rhythm disturbances, high blood pressure, and angina, but they can make heart failure worse. So your doctor may want you to avoid them. However, there are certain circumstances where he or she may prescribe a calcium channel blocker for one of the indications listed above and carefully monitor you for side effects.

Calcium channel blockers are available only by prescription and include amlodipine, diltiazem, nifedipine, verapamil, and a number of others.

## **Antiarrhythmic Medicines**

Antiarrhythmic medicines are used to control heart rhythm disturbances. Several antiarrhythmics are harmful for people with heart failure and generally should be avoided. These medicines are available only by prescription. If you have a heart rhythm disturbance, your doctor can use other medicines to manage it.

If you have heart failure, your doctor will probably want you to avoid certain antiarrhythmics, such as quinidine, disopyramide, procainamide, and flecainide.

## Alternative Therapy Interactions

Many patients have questions about whether alternative or herbal therapies can help treat heart failure.

Although you may have read some encouraging claims about these therapies, there is no evidence that they improve heart failure.

We do know that the ingredients in some alternative therapies interfere with the action of heart failure medicines and may have other harmful actions.

Some natural or synthetic products containing the following substances may interfere with or adversely affect the intended effects of certain medicines used to treat heart failure:

- Ephedra (ma huang)
- Ephedrine metabolites
- Chinese herbs
- Hawthorne (crataegus) products

Additionally, the following substances can interact with a blood thinner you may be taking:

- Garlic
- Ginseng
- Gingko
- Coenzyme Q-10

If you wish to try alternative or herbal therapies, please talk to your doctor or nurse about it. Ask them the following questions:

- Will this alternative or herbal therapy interfere with my heart failure medicines?
- How much of this alternative or herbal therapy is safe for me to take?
- Has this alternative or herbal therapy been tested for safety in people with heart failure?
- Have research studies proven that this alternative or herbal therapy helps people with heart failure?

Tell your doctor about any natural medicines or alternative or herbal therapies that you are taking. Beware of extravagant claims about the benefits of alternative or herbal therapies.

Never take alternative or herbal medicines in place of your regular medicines.

## General Questions and Answers about Heart Failure Medicines

**Question:** How can I remember to take all of my pills at the right times each day?

**Answer:** It can be hard to remember when to take your pills. The following tips can help you:

- Get a pillbox labeled with the days of the week and times of day. Fill the box at beginning of the week. Ask a family member or visiting nurse to help you fill the box if needed.
- Make a list with the names of your medicines, the dosages, the times, and other instructions on how to take them. Put the list on the refrigerator or other place where you will easily see it every day. You can also carry a copy with you. (You can use the cards at the back of this module for your list.)
- Keep a chart of when you are supposed to take your medicines. Mark the chart after you take your pills.
- When you are at home, use a kitchen timer to help you to remember the times to take your medicines. You can also use a watch with a timer.
- Ask family members or friends who live with you or near you to remind you to take your medicines if that will help you.

- Take your medicines with you when you leave home, so you can take them on time.
- Be sure to take several days worth of medicines with you, if you are going to be away from home for a few days. Pack your medicines in your carry-on bags. Do not put them in your checked luggage on an airplane.
- Reorder your prescriptions ahead of time so that you never run out of medicines.

**Question:** Do I need to take my heart failure medicines even if I feel well, am breathing easily, and do not have swelling?

**Answer:** Yes. Take your medicines all of the time to stay healthy. Remember that some of these medicines block the production or action of stress hormones (substances that make heart failure worse). So even if you are feeling well, breathing easily, and do not have swelling, your body needs the medicines.

## Keeping Track of Your Medicines

To keep track of all of the medicines you take, make a list. Keep it in a handy place at home. Also keep a copy in your wallet or purse. You can use the cards on the next page. Fill out the cards using a pencil, so you can update them.

- Be sure to update your cards whenever a medicine or dose changes.
- Carry a card in your wallet or purse, so you have it with you when you visit your doctor or go to the hospital.

List each of your own medicines, their doses, and number of times each day you take each medicine on your cards.

Name: _____		
Drug	Dose	Times per day
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Name: _____		
Drug	Dose	Times per day
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
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## Learn More

You can learn more about how to take control of your heart failure by reading the other modules in this series. You can get copies of these modules from your doctor or nurse. Or you can visit the Heart Failure Society of America web site at: [www.hfsa.org](http://www.hfsa.org).

The topics covered in the other modules include:

- Introduction: Taking Control of Heart Failure
- How to Follow a Low-Sodium Diet
- Self-Care: Following Your Treatment Plan and Dealing with Your Symptoms
- Exercise and Activity
- Managing Feelings About Heart Failure
- Tips for Family and Friends
- Lifestyle Changes: Managing Other Chronic Conditions
- Advance Care Planning
- Heart Rhythm Problems
- How to Evaluate Claims of New Heart Failure Treatments and Cures

These modules are not intended to replace regular medical care. You should see your doctor or nurse regularly. The information in these modules can help you work better with your doctor or nurse.

<b>Doctor Treating Me for Heart Failure:</b> Name: _____ Phone: _____ Emergency Services: <b>911</b> Pharmacy: _____ <b>Other doctors or nurses:</b> _____ _____ _____ _____ _____	<b>My Medicines</b>  _____ Date
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<b>Doctor Treating Me for Heart Failure:</b> Name: _____ Phone: _____ Emergency Services: <b>911</b> Pharmacy: _____ <b>Other doctors or nurses:</b> _____ _____ _____ _____ _____	<b>My Medicines</b>  _____ Date
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