



You may want to have a say in this decision, or you may simply want to follow your doctor's recommendation. Either way, this information will help you understand what your choices are so that you can talk to your doctor about them.

Heart Failure: Should I Get an Implantable Cardioverter-Defibrillator (ICD)?

Here's a record of your answers. You can use it to talk with your doctor or loved ones about your decision.

1. Get the facts
2. Compare your options
3. What matters most to you?
4. Where are you leaning now?
5. What else do you need to make your decision?

1. Get the Facts

Your options

- Get an ICD.
- Don't get an ICD.

An implantable cardioverter-defibrillator (ICD) is often placed in people who have survived an abnormal heart rhythm that could cause sudden death. This decision aid focuses on whether to get an ICD if you have **not** had a heart rhythm that could be deadly but are at risk for one.

Key points to remember

- Your doctor may suggest an ICD if you are at risk of having an abnormal heart rhythm that could cause sudden death. Tests can show if you are at risk.
- An ICD does not treat heart failure. It does not help you feel better. You will continue with your treatment for heart failure whether you decide to get an ICD or not.
- Many medical facts play a role in whether an ICD might help you. For example, your doctor will check the amount of blood your heart pumps (ejection fraction). Your doctor also will consider other health problems you may have.
- The shock from an ICD hurts briefly. It's been described as feeling like a punch in the chest. But the shock is a sign that the ICD is doing its job to keep your heart beating. The ICD also can use painless electrical pulses to fix a heart rate that is too fast or too slow.
- There are several risks to getting an ICD. Problems can happen during and soon after the surgery to implant the device. Other problems can happen over time.

FAQs

How can heart failure affect heart rhythm?

When you have heart failure, the lower chambers of your heart (the ventricles) aren't able to pump as much oxygen-rich blood as the body needs. Some people who have heart failure also may have abnormal heart rhythms that can cause sudden death.

The heart may beat so fast that the ventricles don't have time to fill with blood. This type of abnormal rhythm is called ventricular tachycardia (say "ven-TRICK-yuh-ler tack-ih-KAR-dee-uh"). Some types of ventricular tachycardia may lead to ventricular fibrillation (say "ven-TRICK-yuh-ler fib-ruh-LAY-shun"). With ventricular fibrillation, the heart quivers, or flutters, and stops pumping blood. Then, if the heart stops beating, this is called cardiac arrest. Cardiac arrest causes sudden death.

How can an ICD help?

An ICD is a battery-powered device that can fix an abnormal heart rhythm and prevent sudden death.

An ICD is always checking your heart rate and rhythm. If the ICD detects a life-threatening rapid heart rhythm, it may try to slow the rhythm back to normal using electrical pulses. If the dangerous rhythm does not stop, the ICD sends an electric shock to the heart to restore a normal rhythm. The device then goes back to its watchful mode.

Some ICDs also can fix a heart rate that is too slow without using a shock. The ICD can send out electrical pulses to speed up a heart rate that is too slow.

Whether you get pulses or a shock depends on the type of ICD, the type of heart problem that you have, and the way the doctor programs the ICD to respond to it.

In some people who have heart failure, the ventricles don't beat at the same time. If these people also have a risk for abnormal heart rhythms, they may get a device that combines an ICD and a biventricular (say "by-ven-TRICK-yuh-ler") pacemaker. This pacemaker is also called cardiac resynchronization therapy (CRT). This type of pacemaker uses electrical pulses to make the ventricles pump at the same time. The ICD part of the device can give a shock to fix an abnormal heart rhythm.

How is the ICD placed?

Your doctor will put the ICD in your chest during minor surgery. You will not have open-chest surgery. You probably will have local anesthesia. This means that you will be awake but feel no pain. You also will likely have medicine to make you feel relaxed and sleepy.

The doctor will make an incision (cut) in the skin just below your collarbone or at the side of your chest. The doctor will put the ICD leads (wires) through the cut. For one type of ICD, your doctor puts one or two leads in a large blood vessel and threads them into the heart. For another type, the lead may be placed under the skin through a small cut in the middle of your chest. Then your doctor connects the leads to the ICD. Your doctor puts the ICD under the skin of your chest and closes the cut. Your doctor also programs the ICD.

Most people spend the night in the hospital, just to make sure that the device is working and that there are no problems from the surgery.

You may be able to see a little bump under the skin where the ICD is placed.

How does it feel to get a shock from an ICD?

The shock from an ICD hurts briefly. It's been described as feeling like a punch in the chest. But the shock is a sign that the ICD is doing its job to keep your heart beating. You won't feel any pain if the ICD uses electrical pulses to fix a heart rate that is too fast or too slow.

There's no way to know how often a shock might occur. It might never happen.

It's possible that the ICD could shock your heart when it shouldn't. If that were to happen, you would have pain. The shock could make you fall out of bed, and that could injure you. You also might be afraid or worried about when the ICD might shock you again.

In rare cases, the shock could cause ventricular fibrillation. If this happened, the ICD would shock your heart again to stop the abnormal rhythm.

Many people say that they have a good quality of life with an ICD. But shocks—and the fear of shocks—can make some people worry too much. They may be afraid all the time that the ICD might shock them. This worry can reduce a person's quality of life.

Who might want an ICD?

An ICD often is placed in people with heart failure who have survived a dangerous abnormal rhythm. The ICD would protect them if they get another abnormal heart rhythm.

But it also may be offered to people with heart failure who haven't had an abnormal heart rhythm but are at risk for one.

You will have tests to see whether you are at risk for abnormal heart rhythms. These may include an electrocardiogram (EKG, ECG), an echocardiogram, or an electrophysiology study.

Your doctor will use these test results and your medical history to figure out if an ICD could help you. Your doctor also will rely on guidelines that help find out who might benefit from an ICD.¹ You and your doctor can work together to decide whether you want to get an ICD.

Your personal feelings are just as important as the medical facts. Talk with your doctor about what matters most to you.

Your doctor may talk with you about a few things. These include whether:

- You're taking medicine to treat heart failure and to prevent abnormal heart rhythms.
- You're expected to live more than 1 year.
- Your ejection fraction is lower than normal.
- You have had a heart attack.

What are the benefits of an ICD?

An ICD can prevent sudden death from an abnormal heart rhythm. ICDs may also help certain people who have heart failure live longer. How much an ICD might help you depends on a few things, including your overall health. Your doctor can help you understand how well an ICD might help you.

What are the risks of an ICD?

There are several risks to getting an ICD. But the risks are different for each person. The risks also depend on the type of ICD that you get. Your doctor can help you understand what your risks are from an ICD.

During the procedure. Problems can happen during or soon after the procedure to implant an ICD. Here are some examples.

- You may have pain or bruising.
- Serious bleeding could occur after placement of the ICD.
- A lung could collapse (pneumothorax) from a buildup of air in the space between the lung and the chest wall.

After the procedure. Problems can also happen months or years after the ICD is implanted. These problems are related to the device or the leads.

- The leads that attach to the heart may break or stop working right. If a lead does break or does not work anymore, you would need surgery. The surgery would be more complex than that needed to replace an ICD battery.
- You could get an infection where the ICD is placed.
- The ICD could shock the heart when it shouldn't. There is no way to know if or when this could happen. It might never happen. Your doctor will program your ICD to lower the risk of one of these shocks.
- There also is a chance that a manufacturer may recall an ICD for a problem. If this were to happen, you might need surgery to take out the ICD and leads.
- The idea of living with an ICD and getting shocked worries some people. For some people, getting a shock can cause anxiety and depression.

How do you live well with an ICD?

After the ICD is implanted, you will not drive for a short time. Depending on the reason you got the ICD, you may not be able to drive for one week to a few months. If you get a shock from the ICD, your doctor may ask that you don't drive for a short time.

You'll need to take steps to safely use electric devices. Some electric devices have a strong electromagnetic field. This field can keep your ICD from working right for a short time. Check with your doctor about what you need to avoid and what you need to keep a short distance away from your ICD. Many household and office electronics do not affect your ICD.

You will need regular monitoring and checkups with your doctor to make sure that the ICD is working well

and that the programming is right for you.

It's important to keep taking your medicines for heart failure. You'll also need to follow a healthy lifestyle to treat heart failure. This includes eating healthy foods that are low in salt and not smoking.

An ICD runs on a battery that can last several years. If the battery gets low, you can decide whether or not to have minor surgery to replace the ICD.

Talk with your doctor about the possibility of turning off the ICD at the end of life. Many people consider turning off the ICD when their health goals change from living longer to getting the most comfort possible at the end of life. Turning off your ICD is legal. It isn't considered suicide. The decision to leave on or turn off your ICD is a medical decision that you make based on your values.

2. Compare your options

	Get an ICD	Don't get an ICD
What is usually involved?	<ul style="list-style-type: none"> ▪ Your doctor will numb the area with local anesthesia. ▪ You probably will spend the night in the hospital, just to make sure that there are no problems. ▪ If the battery gets low, you will have to decide whether to replace the ICD. ▪ You keep taking your heart failure medicine and following a healthy lifestyle. 	<ul style="list-style-type: none"> ▪ You keep taking your heart failure medicine and following a healthy lifestyle. ▪ You may take a rhythm-control medicine to prevent abnormal heart rhythms.
What are the benefits?	<ul style="list-style-type: none"> ▪ An ICD may lower the risk of sudden death in some people who have heart failure. ▪ You may have peace of mind that a dangerous heart rhythm could be fixed right away. 	<ul style="list-style-type: none"> ▪ You avoid the risks of surgery. ▪ You avoid the long-term risks of having the ICD in your body. ▪ You won't worry about when the ICD might shock you.
What are the risks and side effects?	<ul style="list-style-type: none"> ▪ Problems can happen during or soon after the procedure to place the ICD. Examples include a lead tearing the heart or a lung collapsing. ▪ The manufacturer could recall an ICD for a problem. If this were to happen, you might need surgery to take out the ICD and leads. ▪ The shock from an ICD hurts briefly. 	<ul style="list-style-type: none"> ▪ You could have an abnormal heart rhythm that could cause sudden death.

Personal stories

Personal stories about getting an ICD for heart failure

These stories are based on information gathered from health professionals and consumers. They may be

helpful as you make important health decisions.

"I've had heart failure for a while now. My ejection fraction is 40%. It's not great. But my doctor says it's not low enough for me to think about getting an ICD. I'm taking my heart failure medicine, eating a low-salt diet, and doing everything my doctor says to do. If my ejection fraction gets lower, I will think about getting an ICD."

— Marie, age 71

"About 6 months ago I had a heart attack. It affected my heart's ability to pump. So I have heart failure. I've had some trouble just going shopping and taking walks. My doctor and I agreed that I should get an ICD. The type I'm going to get combines a pacemaker for heart failure and an ICD."

— Lucy, age 55

"My doctor said I could get an ICD. We talked about how it could help me. But I don't want a device like that inside my body. So I'm not going to get one."

— Martin, age 75

3. What matters most to you?

Your personal feelings are just as important as the medical facts. Think about what matters most to you in this decision, and show how you feel about the following statements.

Reasons to get an ICD				Reasons not to get an ICD			
I want to do everything I can to prevent a deadly heart rhythm.				I would rather use only medicine to lower my chance of a deadly heart rhythm.			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More important		Equally important		Equally important		More important	
I'm not worried that the ICD might shock me.				I would worry all the time that the ICD might shock me.			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More important		Equally important		Equally important		More important	
I don't mind having a device inside my body.				I don't like the idea of having a device inside my body.			

More important	Equally important				More important	

I'm not worried about the risks of surgery.						I'm concerned that something could go wrong with the surgery.
More important	Equally important				More important	

I'm not concerned about long-term risks.						I'm concerned about long-term risks.
More important	Equally important				More important	

My other important reasons:						My other important reasons:
More important	Equally important				More important	

4. Where are you leaning now?

Now that you've thought about the facts and your feelings, you may have a general idea of where you stand on this decision. Show which way you are leaning right now.

Getting an ICD						NOT getting an ICD
Leaning toward	Undecided				Leaning toward	

5. What else do you need to make your decision?

Check the facts

1. I'll feel a painful shock if an ICD fixes a heart rhythm that could cause sudden death.

True

False

I'm not sure

You're right. The shock from an ICD hurts briefly. But the shock is a sign that a possibly deadly heart rhythm has been fixed.

2. If the battery gets low, I will need to decide whether to have surgery again to replace the ICD.

True

False

I'm not sure

That's right. If the battery gets low, you will need to decide whether to have surgery again to replace the ICD.

Decide what's next

1. Do you understand the options available to you?

Yes

No

2. Are you clear about which benefits and side effects matter most to you?

Yes

No

3. Do you have enough support and advice from others to make a choice?

Yes

No

Certainty

1. How sure do you feel right now about your decision?

Not sure at all		Somewhat sure		Very sure

2. Check what you need to do before you make this decision.

- I'm ready to take action.
- I want to discuss the options with others.
- I want to learn more about my options.

Use the following space to list questions, concerns, and next steps.

Credits

By Ignite Healthwise, LLC Staff (<https://www.healthwise.org/specialpages/legal/abouthw/en>)
Clinical Review Board Clinical Review Board (<https://www.healthwise.org/specialpages/legal/abouthw/en>)
All Healthwise education is reviewed by a team that includes physicians, nurses, advanced practitioners, registered dietitians, and other healthcare professionals.

References

Citations

1. Heidenreich PA, et al. (2022). 2022 AHA/ACC/HFSA Guideline for the management of heart failure: A report of the American College of Cardiology/American Heart Association. Journal of the American College of Cardiology, published online April 1, 2022. DOI: 10.1016/j.jacc.2021.12.012. Accessed April 1, 2022.

Note: The "printer friendly" document will not contain all the information available in the online document some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.

This information does not replace the advice of a doctor. Ignite Healthwise, LLC, disclaims any warranty or liability for your use of this information.

© 2024 Ignite Healthwise, LLC.

