

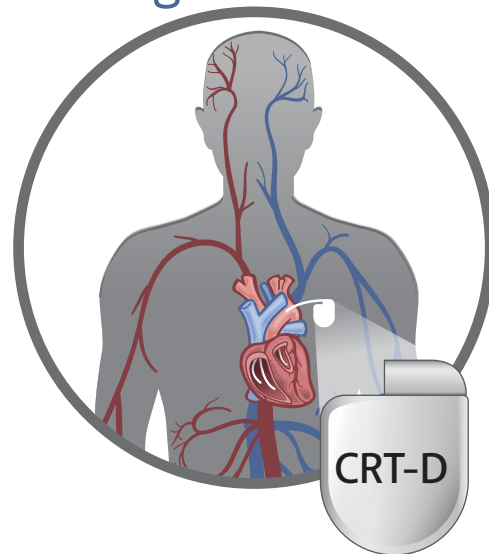
A decision aid for

Cardiac Resynchronization Therapy with Defibrillation (CRT-D)

For patients with heart failure who are getting cardiac resynchronization therapy and considering defibrillation

Section 1: What is CRT?

Sometimes patients with heart failure also have a problem with their heart beating out of sync because of damage to the electrical system of the heart. CRT is a device that helps the heart beat in sync. To do this, a special pacemaker with three wires is placed in the heart to help pace it.



CRT is designed to make you feel better



No CRT



Yes CRT



CRT helps people feel better by improving the heart's ability to get blood to the body. Some people with CRT experience less:

- shortness of breath
- leg swelling
- tiredness

Some people also notice they can walk farther with CRT. Your doctor is recommending CRT to you because she or he believes this will help lessen your overall heart failure symptoms.

Does getting CRT require surgery?

You will need surgery to implant the CRT device. You would be given medication to help you sleep lightly and control pain. The CRT device is put under the skin of the chest and three wires (called "leads") are put into the heart. The surgery takes a few hours. You may stay in the hospital overnight.

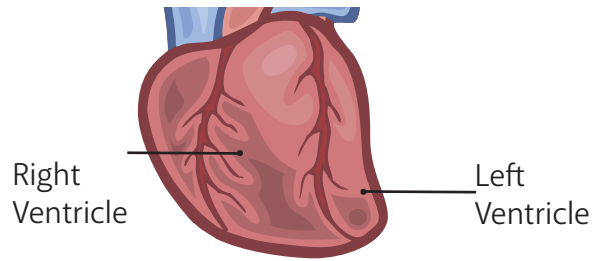


After surgery, there will be a bump the size of a small bar of soap under your skin and a visible scar.





Heart failure is when a heart is too weak to pump enough blood for the body. People with heart failure may become tired easily, have a hard time breathing, or have swelling in their legs. Symptoms may be minor for some people. For others, they can be pretty bad.



CRT is an important therapy that can help some patients feel better. If you are not interested in getting CRT, talk to your doctor. In the next section we are going to discuss the option of whether or not to get a CRT device that can also provide defibrillation.

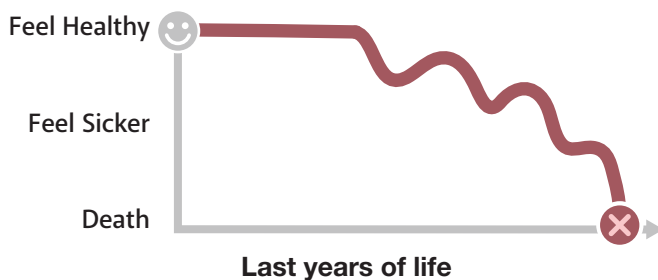
Section 2: Your decision - whether or not to add defibrillation

Is CRT with defibrillation right for me?

There is an important trade-off to consider when deciding whether to get a CRT-D. Consider two possible paths:

Path 1

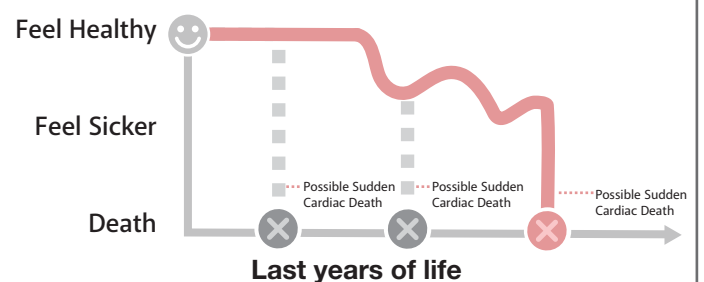
You may choose to get an ICD. You may be feeling like you usually do, then a dangerous heart rhythm could happen. The ICD may help you live longer by treating a dangerous heart rhythm. You will continue to live with heart failure that may get worse over time.



"I'm not ready to die. I have so much I'm trying to stay alive for. Even if it means getting shocked, I'm willing to do anything that can help me live longer."

Path 2

You may choose to NOT get an ICD. You may be feeling like you usually do, and then a dangerous heart rhythm could happen. You may die quickly from the dangerous heart rhythm. This can happen at any time.



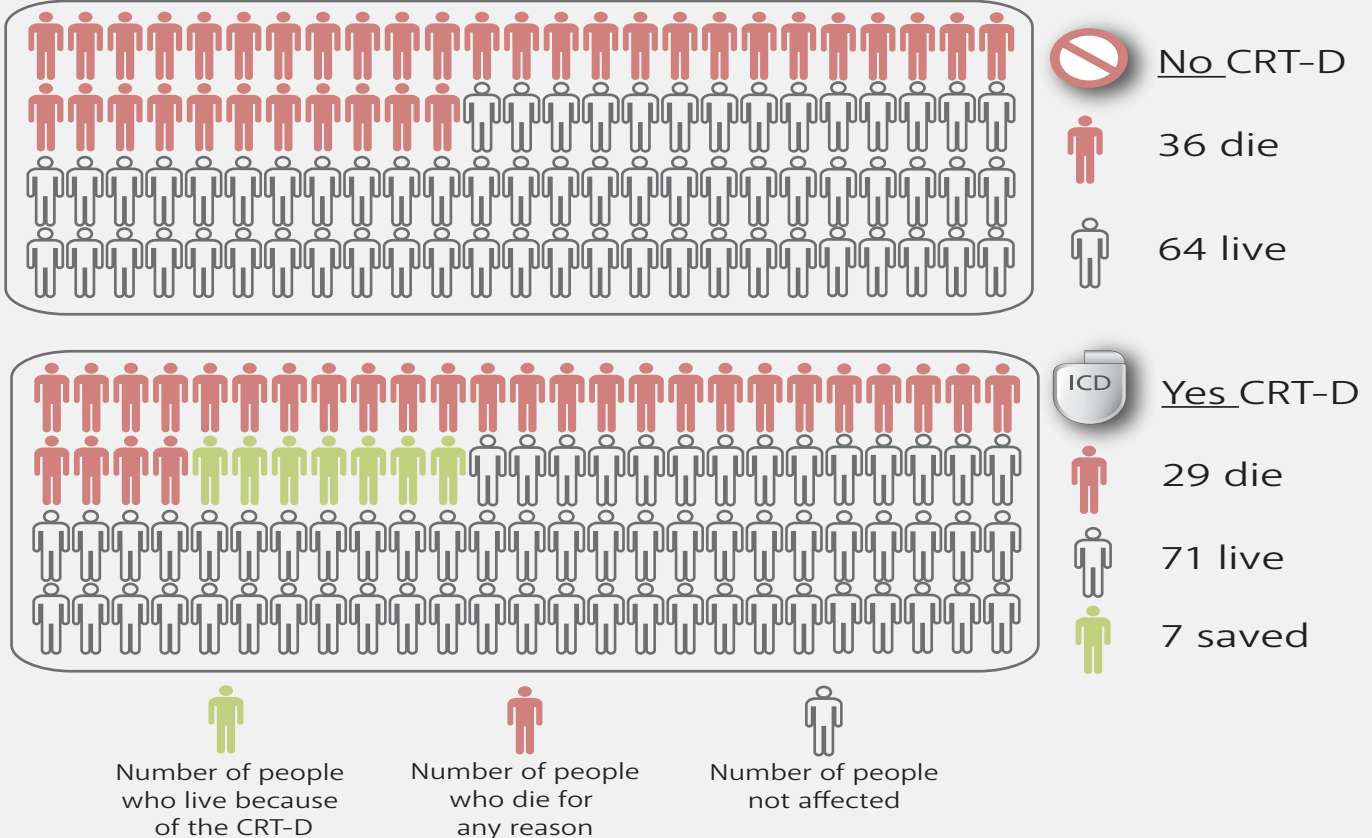
"I've lived a good life. The idea of dying quickly sounds like a painless way to go. I've always said I hope to die in my sleep. Going through surgery and getting shocked is not the kind of thing I want."



How good are CRT-Ds at preventing death?

The numbers below are from recent medical studies. However, no one can know what will happen to any one person.

What are the benefits of getting a CRT with defibrillation (CRT-D) Results from a 5-year study*



*SCD-HeFT. Bardy, GH, et al. NEJM 2005;352:225-237.

Can the CRT-D be turned off?

Yes. It is possible to turn off the defibrillator of the CRT-D without surgery. You may keep the resynchronization therapy turned on. In patients who are close to death, the defibrillator is often turned off so that it will not shock them. Some patients may choose to have it turned off because they no longer want to prevent sudden death.

Can the CRT-D be taken out?

It is best not to remove the CRT-D unless you have an infection or are having the CRT-D replaced.

What are the risks of getting a CRT-D?

Problems do occur:

- 4 out of every 100 patients will experience some bleeding after surgery.
- 2 out of every 100 patients will have a serious problem like damage to the lung or heart.
- About 1 out of every 100 patients will develop an infection.
- Some patients develop anxiety or depression from being shocked.

Copyright © 2017 by The Regents of the University of Colorado on behalf of its employees: Daniel D Matlock MD MPH; Paul Varosy MD; Fred Masoudi MD, MSPH; Pilar Ingle MSW; Christopher Knoepke PhD, MSW; Bryan Wallace; Kenneth Pierce. Funding by the National Institutes on Aging (K23AG040696) and the Patient-Centered Outcomes Research Institute (PI000116-01). Conflicts of Interest: All Developers - None. Last Update 10/24/2017. Some rights reserved. **No part of this publication may be used in any commercial development or effort without the express prior written permission of the publisher. No part of this publication may be used in any derivative work without first obtaining permission from the publisher and providing acknowledgement thereof.** University of Colorado hereby disclaims all liability associated with the use or adoption of the information provided herein. User shall remain liable for any damages resulting from his reliance on this information. The content is solely the responsibility of the authors and does not necessarily represent the official views of funding agencies (NIH, PCORI) or medical centers. The material provided on this infographic is intended for informational purposes only and is not provided as medical advice. Any individual should consult with his or her own physician before determining whether an ICD is right for him or her. This work is licensed under a Creative Commons Attribution, Non-Commercial, No-Derivatives 4.0 International License.

