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Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC)

The Jordan Boyd
Inherited Heart
Disease Clinic

How does the heart work?

The heart is a hollow organ made of muscle. It has 4 chambers: 2 at the top (**atria**) and 2 at the bottom (**ventricles**).

Blood flows from the body into the top chambers. The blood is pumped to the bottom chambers, and is then pumped back out to the body.

Electric signals that pass through the heart muscle control the pumping of the chambers. This electrical activity is called the **heart rhythm**.

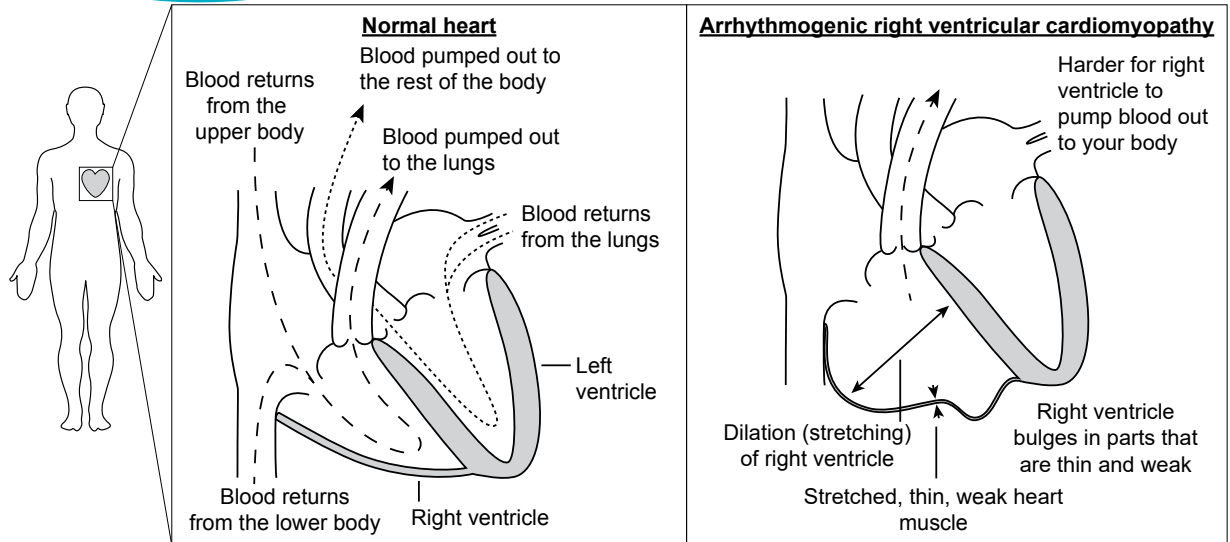
What is arrhythmogenic right ventricular cardiomyopathy?

In arrhythmogenic right ventricular cardiomyopathy (ARVC), some of your heart muscle is replaced by fat and scar tissue.

ARVC usually affects the right side of the heart. The fat and scar tissue dilate (stretch) the right side of your heart. This weakens the heart muscle. This makes it harder for your heart to pump blood out to your body.

If your ARVC is very bad, it may cause fluid to build up in your lungs (causing shortness of breath), ankles, or belly (causing swelling).

ARVC can also change your heart's electrical activity. This can cause fast, dangerous heart rhythms.



What causes ARVC?

ARVC can be caused by changes in your genes. These changes can be hereditary (passed from parents to their children).

Sometimes the cause is not known.

It is important to tell your health care provider if you had a relative who died suddenly at a young age. This could have been caused by ARVC.

What are the symptoms of ARVC?

Symptoms may include:

- › Lightheadedness
- › Fainting
- › Palpitations (feeling like your heart is jumping, racing, or fluttering)
- › Shortness of breath
- › Tiredness
- › Pain, swelling, or tightness in the chest

How is ARVC diagnosed?

Health care providers use different tests to diagnose ARVC. You may have some of these tests:

Electrocardiogram (ECG/EKG): A recording of your heart rhythm for 10 to 20 seconds.

Signal averaged electrocardiogram (ECG/EKG): A more detailed recording of your heart rhythm for 5 to 10 minutes.

Holter monitor: A recording of your heart rhythm for 24 hours (1 day).

Echocardiogram (Echo): An ultrasound that measures the size of your heart chambers and how well your heart is pumping.

Cardiac MRI: A scan using magnets and radio waves. It measures the size of your heart chambers, how well your heart pumps, and shows any fat and scar tissue in the heart muscle.

Your cardiologist (heart doctor) may want you to have other tests when they are diagnosing you. They will talk with you about this, if needed.

Genetic testing and family screening

If your cardiologist thinks changes in your genes caused your ARVC, they may ask if you would like to talk with a genetic counsellor about genetic testing.

Your cardiologist may also want to ask other members of your family to test for ARVC.

They may ask you to help by giving letters to your family members.

How is ARVC treated?

There is no cure for ARVC, but there are treatments that can control fast heart rhythms and help with your symptoms.

Treatments may include:

- › medications.
- › a pacemaker called an **internal cardioverter defibrillator** (ICD). The ICD identifies fast heart rhythms and slows your heart rhythm down to a safer speed.
- › a heart transplant (this is rare).

Intense and repetitive types of exercise may make ARVC worse. Talk with your health care provider about what activities are safe for you.

More information about ARCV:

Hearts in Rhythm Organization (HiRO)

- › www.heartsinrhythm.ca/arvc/info/

The Canadian Sudden Arrhythmia Death Syndromes (SADS) Foundation

- › www.sads.ca
- › Includes information about inherited heart diseases and a booklet on ARCV that you can download.

This pamphlet is for educational purposes only. It is not intended to replace the advice or professional judgment of a health care provider. The information may not apply to all situations. If you have any questions, please ask your health care provider.

Prepared by: The Jordan Boyd Inherited Heart Disease Clinic

Illustration by: David C. Lee

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