

FACTSHEET

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Fontan circulation and arrhythmia

This information is designed for use by young people with a Fontan circulation and their families.

Why do you need to know about arrhythmia?

It is common for people who have a Fontan circulation to develop problems with their heart rhythm, this is called an arrhythmia. Up to 40% of patients with Fontan circulation will develop at least one arrhythmia in the 10 years after having Fontan surgery. Arrhythmias commonly occur because of dilation and scarring (from surgery) in the top chambers of the heart (the atria).

The chance of developing arrhythmias has reduced over time as the Fontan procedure has been refined and improved, so patients with an extracardiac Fontan (the most common type of Fontan operation done since about 1990) have the lowest rate of arrhythmia compared to other, older types of Fontan circulation.

Fast heart beats (tachyarrhythmias) are more common than slow heart beats (bradyarrhythmias). Some common arrhythmias experienced by Fontan patients include: atrial flutter, atrial fibrillation, atrial tachycardia and supraventricular tachycardia.

It is important to be aware of this risk of developing an arrhythmia because an arrhythmia can cause you to suddenly feel unwell and you may need medical assistance. This is also a good reason to have some

medical information on you at all times (eg. Medical ID bracelet or use a health app on your phone).

What do you need to look out for?

Watch for symptoms such as:

- shortness of breath
- feeling lightheaded
- fainting
- palpitations (feeling a fast or irregular heart beat)
- chest pain

If you notice any of these symptoms you should immediately seek medical attention.

It is possible to have an arrhythmia and not feel that anything is wrong. This is one of the reasons why regularly attending your follow up appointments is important.

Your cardiologist will regularly perform an ECG or Holter Monitor to check your heart rhythm. You may hear a normal heart rhythm be described as normal sinus rhythm. Regularly checking for an arrhythmia helps detect problems so that they can be treated.

What is the treatment for arrhythmia?

There are different types of treatment available for arrhythmia. These include;

- Putting your heart back to a normal rhythm by cardioversion (delivering a safe kind of energy to the heart).
- Medications called antiarrhythmics.
- Catheter procedures that map your heart rhythm and change electrical pathways within the heart.
- Implantation of a pacemaker and/or a defibrillator.

Deciding on the best treatment option will depend on the type of arrhythmia. If you have an arrhythmia and don't already take a blood thinner medication (eg. aspirin or warfarin) this may also be recommended to you.

Remember:

- Arrhythmias are common for patients with Fontan circulation.
- Arrhythmias can be treated.
- Attending your follow up appointments is very important.

Arrhythmia: When your heart is beating in a way that is not normal.

Bradycardia: When your heart is beating abnormally and too slow.

Cardioversion: A procedure that delivers a safe kind of energy to the heart to put your heart rhythm back to normal. This is done while you are asleep under anaesthetic.

Defibrillator: A device that gives an electric shock to change your heart beat back to a normal heart beat.

ECG: Electrocardiogram, a test that uses stickers on your chest to record the electrical activity of the heart.

Holter Monitor: A test that is like an ECG, you are given a small portable machine that will record your heart rhythm for 24 hours.

Palpitations: When your heart is not beating normally. It may feel like it is beating too hard, too fast, too slow or missing beats.

Sinus Rhythm: The normal heart rhythm.

Tachycardia: When your heart is beating abnormally and too fast.