

MonashHeart, Southern Health is committed to providing outstanding cardiac services for cardiac patients of all ages

- ♥ Every 10 minutes, an Australian dies from cardiovascular disease making it the biggest killer of all Australians
- ♥ MonashHeart treats more acute heart attack patients than anywhere else in Victoria
- ♥ Each year MonashHeart treats over 5700 patients with acute heart problems, the most in Victoria
- ♥ MonashHeart operates one of the busiest cardiac CT scanners in the world
- ♥ MonashHeart is the only cardiac service in Victoria, South Australia and Tasmania to treat heart patients of all ages; from pre birth to our senior citizens
- ♥ MonashHeart is an internationally and nationally recognised leader in cardiovascular research
- ♥ Nearly one in 100 children in Australia are born with a heart defect. Congenital heart disease accounts for 50% of childhood lethal malformations



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Clayton South 3169

At the **Heart** of Care and Innovation

Some useful websites

MonashHeart
www.monashheart.org.au

Patient Information
www.heartfoundation.com.au



Please use this space to write down any questions you may have:



Direct Current Cardioversion (DCR)

A Guide For Patients

What is a Direct Current Cardioversion?



Cardioversion is the process of converting an abnormal heart rhythm (arrhythmia) to a normal rhythm. A Direct Current Cardioversion (DCR), also known as electrical cardioversion, is a procedure in which a very brief electrical current is delivered to the heart to restore normal rhythm.



Why do I need a DCR?

The most likely reason that you require a DCR is that you have an abnormal heart rhythm (arrhythmia) such as atrial flutter or atrial fibrillation. In these arrhythmias, the atria (upper chambers of the heart) beat very fast or quiver. Because of this abnormal beating, blood is not circulated effectively around the body. Not all patients experience symptoms, however some may experience symptoms including palpitations (heart racing), dizziness, shortness of breath and tiredness. In some patients, the arrhythmia can affect heart function.

Most likely your cardiologist has tried medications to try to correct the arrhythmia (chemical cardioversion) but they have not been successful. With a successful DCR your heart rhythm can be restored to normal (known as sinus rhythm) and it is likely this will make you feel better.

What happens after the DCR?

After the DCR, you will remain in hospital with your blood pressure and oxygen level monitored until you are fully awake. A 12-lead ECG will be performed after the DCR. You will be able to eat and drink once you are fully awake. Your intravenous cannula will be removed and you will be allowed to go home two to four hours after your DCR.

You will be seen by a MonashHeart doctor for the procedure, and reviewed after the procedure before going home from hospital. You should have an appointment for review with your own cardiologist within six weeks of your DCR.

You may feel sleepy after the procedure. Please make sure you have someone with you who can drive you home afterwards as you will not be allowed to drive yourself or catch a taxi alone. You should not drive for 24 hours after the procedure as the effects of sedation may persist for many hours.

You should continue your usual medications including warfarin until review with your cardiologist unless advised otherwise. Warfarin is usually continued for at least four weeks following DCR and we recommend you continue your warfarin until you are reviewed by your cardiologist and advised whether it should still be continued.

Please report any return of symptoms (irregular pulse rate) to your local doctor.

If you have any further questions or concerns about your upcoming DCR, please talk to your local doctor. On the day of the DCR the MonashHeart team will be more than happy to discuss all aspects of the procedure with you.

I support MonashHeart, Southern Health in providing leading care to cardiac patients of all ages.

(Donations of \$2 or more are tax deductible ABN 82 142 080 338)

I enclose a cheque/money order made payable to MonashHeart, Southern Health for: \$.....

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Is your donation a gift in memory? Yes No

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I give MonashHeart the option of publishing my name in recognition of my support

Here's how to make your gift:

Call: 1300 MHEART Fax: 03 9594 6030

Post: complete and return this coupon to:
Fundraising, MonashHeart, Southern Health,
Locked Bag 29, Clayton South 3169

Online: www.monashheart.org.au/donate

Thank you for supporting MonashHeart

How do I prepare?

Prior to your DCR, you will need to take a medication called warfarin (or coumadin) for at least three to four weeks (alternatively you may be receiving clexane/heparin injections). Warfarin should be continued until your procedure, including the day of your DCR, and most likely for a period after your DCR. That is, your warfarin should not be stopped for the procedure.

The reason you require warfarin relates to the fact that the atria (upper chambers of the heart) are beating fast/quivering and do not contract effectively. As a consequence there is a risk of blood clots forming within these chambers. Restoring the heart rhythm with cardioversion can cause these blood clots to dislodge when the heart begins contracting normally again, increasing the risk of heart attack or stroke. By taking warfarin, an anticoagulant that thins the blood, the risk of clots is substantially reduced.

A blood test called an INR, is performed to ensure your blood is thin enough and your warfarin dosage is often adjusted according to the INR blood test results. Your doctor or pathology service will review your INR and advise you of what dosage of warfarin to take.

When we are aware that you will be having a DCR, you will be contacted by MonashHeart. We will review your INR results and ensure your blood has been thinned enough to proceed with the procedure. Once your INR is greater than two for three consecutive weeks you will be ready to be booked for your DCR.

When booked for your DCR, you will receive a letter of appointment, instructions and a blood INR slip. You must attend your normal pathology provider on the Monday before your DCR to have your INR and kidney function test. Results will need to be faxed to MonashHeart on (03) 9594 2091.





What can I expect?

DCR requires an admission to hospital as a day patient.

You must not eat or drink anything for six hours prior to the procedure.

The procedure usually does not require you to stop any medications. We request that you continue your other medications as normal. This includes medications that you have been prescribed for the arrhythmia including beta-blockers, amiodarone etc.

Please withhold on the morning of your DCR any diuretics (lasix/spironolactone/ indapamide/thiazide) and digoxin.

On the day of your DCR you may take your usual medications with a sip of water, unless you are instructed to do otherwise.

Specific advice for diabetics

If you take diabetic medication:

- ♥ please withhold all diabetic medication the morning of your DCR
- ♥ bring your tablets and/or insulin with you on the day of your DCR
- ♥ oral hypoglycaemic tablets (metformin, gliclazide, glipizide) can usually be taken with food after the DCR
- ♥ if you are taking insulin, the MonashHeart doctor supervising the DCR will decide what dose of insulin you may need after your DCR

If you need to clarify these instructions, please do not hesitate to contact MonashHeart on 9594 2684.

You will be admitted to a bed in our cardiac care unit. Before the DCR, nursing staff will arrange for a 12-lead electrocardiogram (12-lead ECG) to check your heart rhythm and any additional blood tests if required. An intravenous cannula (drip) will be inserted into your hand or arm and you will be placed on a heart monitor.

An anaesthetist and MonashHeart doctor will be present during the procedure. You will be given light anaesthetic so that you are asleep for the procedure. Your breathing will be supported as needed (usually with an oxygen mask) by the anaesthetist.

Special gel pads will be placed on the front and back of your chest. A doctor will perform the DCR and determine the amount of electricity required to be delivered by the defibrillator. More than one electrical current may be required to return your heart to a normal rhythm.

The electrical current will reorganise your heart rhythm so that the natural pacemaker of the heart resumes normal function and restores the normal/regular rhythm.

Occasionally the DCR procedure is not successful and does not return your heart to its normal rhythm.





What are the risks?

In recommending this procedure your cardiologist has balanced the benefits and risks of the procedure against the benefits and risks of not proceeding. Your cardiologist believes there is a net benefit of you having a DCR.

The procedure is generally very safe however, a few risks include:

- ♥ reaction to anaesthetic (uncommon)
- ♥ unsuccessful DCR in restoring your normal rhythm (uncommon)
- ♥ rhythm problems including an unsafe rhythm disturbance (cardiac arrest) requiring resuscitation (rare)
- ♥ slow heart rate (bradycardia) requiring a pacemaker (rare)
- ♥ heart attack or stroke due to atrial clot (uncommon if you have had INR levels greater than two for at least three consecutive weeks prior to the DCR)