



Australian Government
Organ and Tissue Authority

DCD Plain Language Statement

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Explanation of Donation after Cardiac Death (DCD)
and Frequently Asked Questions



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Explanation of Donation after Cardiac Death (DCD) and Frequently Asked Questions

Organ donation involves removing organs and tissue from someone who has died (a donor) and transplanting them into someone who, in many cases, is very ill or dying (a recipient). The donation can save the life or significantly improve quality of life for recipients

In Australia, most donations occur when a person is declared 'brain dead'. Brain death occurs when the brain is so badly damaged that it permanently stops functioning, usually because of bleeding in the brain, a stroke, infection or severe head injury.

This document aims to explain another method of organ donation known as Donation after Cardiac Death (DCD), and to answer some frequently asked questions.

Frequently Asked Questions

When can DCD be considered?

Potential DCD donors are patients in the Intensive Care Unit (ICU) who are so sick that their doctors do not think they have any chance of survival without ongoing artificial ventilation or life support, and it is expected that they will not survive for longer than 90 minutes when life support is withdrawn. Generally they are patients with very severe brain injury from which they cannot recover. Less often, they are patients with terminal heart or lung failure, or have suffered a very severe spinal injury where they cannot breathe unassisted. Care and respect is always maintained during the end-of-life process

What is the difference between DCD and Donation after Brain Death?

In a patient who has lost all brain function, the blood is still circulating to organs other than the brain. In this situation there is usually plenty of time to organise organ donation. This allows the family to spend more time with the patient who has died, before the organ donation operation takes place. However in DCD, it is important to start the operation as soon as possible after death has been determined. This is because the heart is no longer pumping blood to the organs, and if this time is too long, the organs may not work properly after they are transplanted.

Can the family change their minds about donation?

Yes, the immediate family can change their minds about organ donation at any point up to the time when the patient is taken to the operating room.



Will the patient suffer after the ventilator is removed?

No, patients are given medications to ensure there is no pain, distress or suffering and to ensure that their dignity is maintained at all times.

Can family and friends be there when the patient dies?

Yes, it is possible for family and friends to be there when the ventilator is removed and the patient subsequently dies. They may be asked to leave very shortly after death, so that the time between the determination of death and the start of the organ donation operation is as short as possible.

After the ventilator is removed how quickly will the patient die?

This can be difficult to predict. Often, patients die within 10-20 minutes after stopping the ventilator and removing the breathing tube. However, some patients may not die until some hours later. If this occurs, organ donation is no longer possible but donation of tissue may still proceed

How is death determined?

After artificial ventilation is withdrawn, the intensive care doctors will monitor the patient's breathing and heart beat to determine the exact time the patient's heart stops beating. The doctor will determine that the patient has died in the period of no less than two minutes and no more than five minutes after the patient's heart stops beating. This is the time of death that appears on the death certificate.

Is it possible for a patient to come back to life after death has been determined?


No, the doctor who determines death must decide that the process is irreversible, that is, that the heart will not start beating again. This is why death is determined at no less than 2 minutes and no more than 5 minutes after the heart stops.

Will the patient be given any treatment that will benefit the organ recipients?

The treatment given to potential DCD donors is slightly different from the treatment of patients for whom the decision to withdraw artificial ventilation is made and who are not going to be organ donors.

These differences do not harm the patient and are essential for organ donation to occur. Examples of these differences include:

- ▶ Delaying withdrawing of artificial ventilation to allow time to organise the organ donation operation.
- ▶ Taking blood samples to ensure the organs are suitable for donation and match the organs to potential recipients.
- ▶ Possibly moving the patient to a place that is more suitable for the process of DCD (e.g. to a room that is in or close to the operating room, to shorten the delay before surgery).

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- ▶ Occasionally giving medication at the discretion of the medical staff with consent from next of kin.

No treatment is given that is intended to hasten or cause the death of the patient.

Who is involved in the organ donation process?

Many people are involved at different stages:

- ▶ Intensive care doctors and nurses provide end of life care to dying patients in the days and hours leading up to their death.
- ▶ The intensive care doctors are involved in determining that the patient is going to die from their primary injury or illness and will only discuss the possibility of organ donation once the decision has been made with the family to withdraw artificial ventilation.
- ▶ The organ donor coordinator organises all aspects of the donation process and will often be the person who explains the details of the DCD process to the family.
- ▶ A doctor independent of the surgical team determines death.
- ▶ The surgical retrieval team conducts the donation surgery and other surgical teams transplant the organs retrieved. The surgical teams are not involved in treating the donor patient before death. These teams are not involved the determination of death and are separate from the doctors providing care in the ICU.

How long will the organ donation process take?

Once a family has decided to go ahead with organ donation, it can take up to 12 hours to prepare for the organ donation operation. This time will be taken up with:

- ▶ Explaining the organ donation process to the family, answering their questions and providing support.
- ▶ Organising blood tests.
- ▶ Collecting medical information needed to decide which patients on the waiting list should receive the organs.
- ▶ Organising the surgeons and operating rooms.

How soon are the organs removed after the patient has died?

The organs are not removed until the patient has died, and the family has had time with their loved one. The patient is then transferred to the operating room for surgery. This time is kept as short as possible to ensure that organs function well after being transplanted into a recipient.

Which organs can be donated after cardiac death?

The lungs, liver, kidneys and, on occasion, the pancreas can be donated. This will depend on the patient's age, the condition of the organs and how quickly the patient dies after ventilation is withdrawn. Tissue donation, such as corneas, skin, and bone may also occur at the same time to minimise the number of operations carried out on the donor.



How are the organs removed?

The organ donation operation is performed by a specialist surgical team in an operating room at the hospital. The donor is always treated with dignity and respect, throughout and following the donation operation.

How long will the organ donation operation take?

The organ donation operation will take 1 to 2 hours, depending on how many organs are being donated.

Can the family and/or friends see the patient after the organ donation operation?

Yes, it is possible to see the patient after the organ donation operation. This may occur at the hospital directly after the operation or at a time requested by the family and/or friends.

Will the patient look different after the organ donation operation?

No, the organ donation operation does not change the physical appearance of the patient, other than the natural appearance of death, and the presence of surgical dressings. If the family wish, it will still be possible to have an open coffin funeral.

Is there a cost or payment to the patients or donors family?

No, there is no cost or payment to the family related to organ or tissue donation. Families will be able to organise funeral arrangements as per their loved one's wishes.

Can the family find out what happened to the organs after they are transplanted into the recipients?

The organ donor coordinator remains in contact with the donor's family and provides ongoing information and support. The family will be told about the outcome of the donation and give some limited information about the recipients. Legal restrictions do not permit any identifying information about the recipients to be given to the donor family and likewise the transplant recipients are restricted from knowing the identity of their donor or donor family. Donor families and transplant recipients are encouraged to write anonymous letters to each other through their donation agency and transplant units. This process remains anonymous by law.

Can the potential donor's family have a say in who receives the organs?

No. The organs are donated unconditionally. The allocation of the organs is determined by the transplant doctors, based on who will be the best 'match' for, and who will benefit most from, the transplanted organs.