

Irish Council for Bioethics

# Organ Donation The Gift of Life?



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## Q1 What is organ donation?

Organ donation takes healthy organs and tissues from one person for transplantation into another, in order to replace diseased and non-functioning organs. Organs/tissue, which are suitable for transplant, include heart, kidneys, lungs, liver, pancreas, skin and bone (For a full list see Table 1).

## Q2 Who can be a donor?

Most donated organs come from people who die while on life support, following a severe brain injury. Brain death, unlike a coma, is the complete and irreversible cessation of all brain function. Brain death usually occurs when a person receives a severe head injury, suffers a stroke or a brain haemorrhage or any other event which deprives the brain of oxygen. In some countries organs are also taken from non-heart-beating donors (NHBDs). NHBDs are patients who have died from cardiac death i.e. irreversible loss of heart and lung function. A selected number of organs can also be donated by the living.

TABLE 1

Organ	Function	Treatment
Heart	Pumps blood around the body	End-stage heart disease
Lungs	Absorb oxygen and release carbon dioxide	Cystic Fibrosis, emphysema, or other end-stage lung disease
Kidneys	Extract waste from blood, produce hormones	Renal (Kidney) disease (eliminates need for dialysis)
Liver	Removes blood wastes and makes proteins	End stage liver disease
Pancreas	Secretes enzymes for digestion and regulates blood sugar	Diabetes (reduces the risk of losing limbs or sight)
Small Bowel or Small Intestine	Digestion and absorption of nutrients	Punctured intestine, mal-absorption or tumours
Corneas	Allow light to enter the eye	Restoration of sight
Skin	Protects the body against dehydration, injury and infection	Severe burns (decreases pain, infection, scarring, heat and fluid loss)
Heart Valves	Prevent blood from flowing the wrong way	Corrects heart defects in babies/children, used to treat adults with diseased valves
Bone	Supports the body, protects vital organs	Facial reconstruction, limb salvage, correction of birth defects, cancer treatments, spinal and oral surgery
Bone Marrow	Forms blood cells	Leukaemia
Cartilage	Connective tissue that serves as skeletal tissue	Reconstruction of body parts such as the nose and outer ear
Tendons	Attach muscle to bone	Repair joint injuries
Fascia	Fibrous tissue covering muscles	Repairs tendons, muscle ligaments and deformities
Dura	Membrane covering the brain	Corrects damage caused by tumours or accidents

### Q3 How are organs distributed to patients on the transplant list?

Many different medical and logistical factors are considered for an organ to be distributed to the best-matched recipient. While specific criteria differ for various organs, generally criteria include blood type and size of organ needed, time spent waiting on the transplant list and the medical urgency of the recipient. Ireland has a national electronic list of patients awaiting organ transplants. This database identifies the best-matched patient for an organ or the transplant unit to which the organ will be offered.

### Q4 Can donors select who gets their organs?

Organ recipients cannot be selected by the donor but are selected based on medical need and tissue compatibility. However, there is currently a debate regarding whether donors should be allowed to direct their organs to a specific recipient. Opponents argue that allowing donors to select recipients would lead to the discrimination of persons on the basis of e.g. race, gender or religion. Opponents also invoke the principle of justice, which supports an equal distribution of life-saving resources independent of characteristics, such as race etc. Proponents argue that permitting potential donors to select recipients would demonstrate respect for the right to autonomy i.e. one's ability to make independent choices without any external influences and would result in increased rates of donation.

### Q5 What system of organ donation is used in Ireland?



The current system of organ donation in Ireland is the opt-in or informed consent system whereby individuals wishing to donate carry a donor card and inform their next-of-kin of their decision.

Ireland has one of the highest rates of organ donation (per million population) in the world. In 2006, 234 organ transplants were carried out in

the State. However, there are currently more than 600 people in Ireland awaiting organ transplants and as of December 2006 over 1,500 people (adults and children) are on dialysis. Therefore, despite the rate of organ donation there is still an exceptional demand for transplants.

### Q6 What solutions are proposed to help decrease the shortfall in donor organs?

There are a number of options available to help decrease the shortfall in donor organs. However, it should be noted that there are social and ethical factors associated with each of these options, which may affect the feasibility of implementing them.

#### Opt-In System

The opt-in or informed consent system of organ donation is a voluntary one and has been described as a system, which respects an individual's right to autonomy. It is also an altruistic system i.e. people donate their organs for the sake of others without expecting anything in return. However, there still remains a discrepancy between the public's expression of willingness to donate and actual donation rates. Another criticism, which has been made regarding the opt-in system, is that relatives can override the previously expressed wishes of the deceased.



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#### Opt-Out System

The opt-out or presumed consent system of organ donation works on the basis that people are presumed to be willing donors unless they express otherwise to a relevant authority while living. The system of presumed consent is operated in a number of European countries and it has been suggested that, in general, countries with the opt-out system have a better ratio of donors versus people on transplant waiting lists than countries with the more conventional opt-in system.

Critics of presumed consent state that it interferes with an individual's right to autonomy and warn that there may be a public backlash against organ donation as a result. They state that individuals may be more likely to donate if they feel free to exercise a choice rather than being compelled to do so by the law. A practical issues also exists, despite operating an opt-out system most countries will still respect the wishes of the next-of-kin.

## Compulsory Donation

It has been suggested that the system of presumed consent does not do enough to maximise the amount of potential donors and for this resource to be fully utilised then deceased organ donation should be made compulsory i.e. a person could not opt-out of donating. With such a model, organ donation would be similar to other mandatory public goods, such as jury service or compulsory military service. While proponents of compulsory donation admit that the system involves a loss of autonomy, they state that it should still be considered as an option because it would benefit society as a whole.

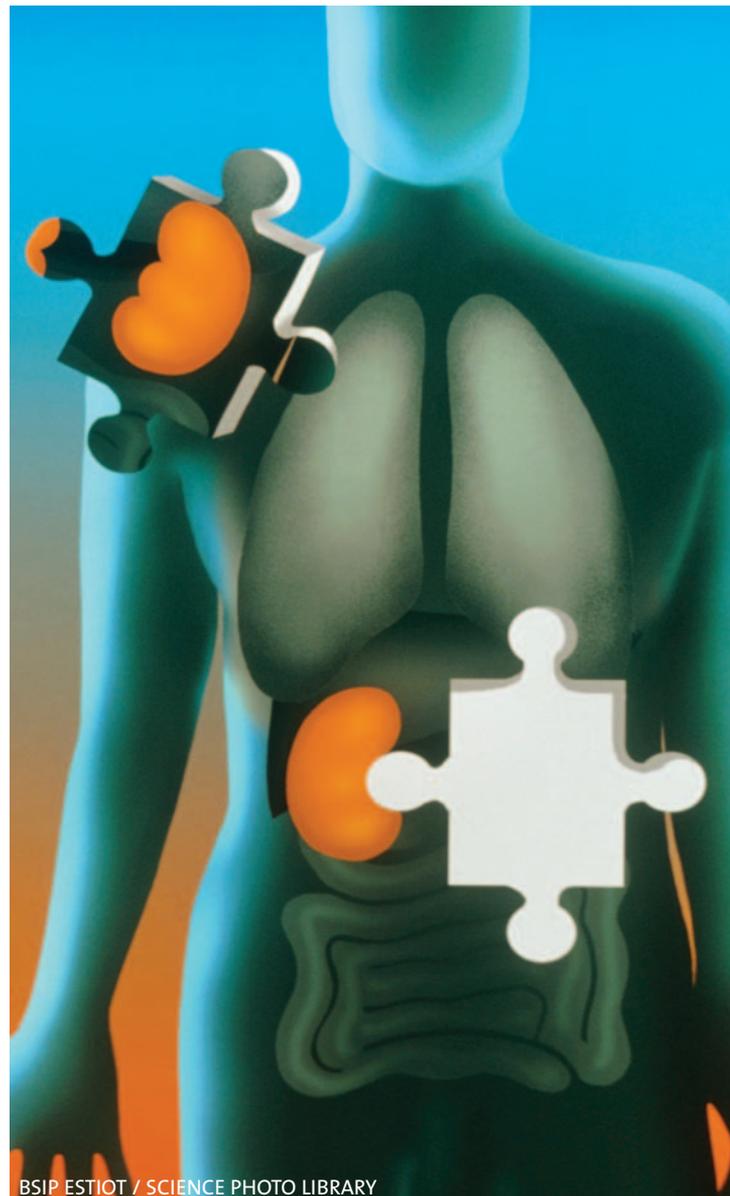
Those in favour argue that, since legally, dead bodies and body parts cannot be owned by anyone, deceased people do not suffer harm as a result of compulsory organ donation. They also argue that after death people are no longer aware of what is occurring and therefore have no interest in what happens to their bodies. However, opponents of mandatory donation argue that because of the close relationship between individuals and their bodies during their lifetime, their wishes should be respected even after their death. Concerns have also been raised about the potential distress caused to next-of-kin as a result of compulsory donation.

## Mandated Choice

Mandated choice requires individuals to inform a relevant authority whether or not they wish to donate their organs after their death. Individuals would be required to record their wishes about organ donation and those wishes would be considered legally binding i.e. relatives would have no power to veto the decision. Under the mandated choice system people would be allowed to change their minds as often as they wished. Proponents of mandated choice argue that forcing individuals to make a decision while they are living spares their families the distress of having to decide in the event of their death. Concerns have been raised, however, that mandated choice interferes with individuals' autonomy by forcing them to potentially make a decision against their will.

## The Solidarity Model

The solidarity model operates on the basis of giving priority to those who need an organ if they have previously consented to becoming an organ donor in the event of their death. There are concerns that allocating medical treatment on the basis of something other than medical need is morally ambiguous. Opponents of this system also say that it would be unjust to those who cannot donate for medical reasons. There are also concerns that there would be a strong tendency to enrol for those who have good reason to believe they will need an organ in the future because of e.g. family history or lifestyle, thus undermining the model. However, proponents argue that the solidarity model rewards those who express social solidarity and would boost the number of organs available for transplant.



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## Q7 What is living organ donation?

Living organ donation involves an organ or part of an organ being taken from a healthy living person (known as a living donor) and transplanted into a person with organ failure. Typically a living donor is related to the person awaiting a transplant e.g. sibling or parent. This is mainly because someone who is closely related will have a better chance of being a good tissue match. If the donor and recipient are genetically related there is less risk of organ rejection. Some countries allow un-related living organ donation, whereby friends, colleagues and even strangers are allowed to donate an organ for transplant. Living donors can only donate those organs or tissues, which they can live a healthy lifestyle without. These include a kidney, a lung, and part of the liver, blood or bone marrow.

## Q8 What are the ethical issues associated with live organ donation?

A live donor programme has been suggested as one possible solution to decrease the donor organ shortage, at least for the organs mentioned above. Such a programme would supplement the existing deceased donor system. Proponents argue that establishing a live organ donation programme would reduce the number of people dying while on the transplant list. From a medical standpoint, a live organ transplant provides a better outcome for the recipient than a cadaver (deceased) organ transplant. Proponents also state that because, in general, organs are transplanted from one relative to another, the motivation for donation is altruistic. Opponents of live organ donation argue that because there is no direct therapeutic benefit and albeit a small risk to the donor, it is difficult to justify this approach. They also raise concerns about the potential for family members to be pressurised or coerced to donate organs, leading to fears that their consent would not be genuine.

There are further concerns relating to the practice of organ donation by people who are not related to the recipient. The criticism of un-related living donation relates to the motivation of the donor. For instance, a person may wish to donate for financial or psychological reasons, such as receiving a financial reward, improving self-esteem or out of a sense of obligation e.g. a worker might wish to donate a kidney to his/her employer in order to receive a promotion. Proponents of living un-related donation argue that these individuals are the only living donors that can truly give genuine consent since there are no overlying emotional concerns or sense of obligation.

## Q9 Should people be paid to donate organs?

The purchase of organs as a means of increasing donation rates has been at the centre of widespread debate. While the legal sale of organs is still widely prohibited (Iran being the exception), an unregulated international black market has developed with donors and recipients crossing national borders. The problem has become so widespread, the Council of Europe has called for a common strategy in combating illegal organ trafficking.

Advocates of a legal market in human organs acknowledge that the system would need to be highly regulated with strict controls and penalties to

prevent abuse and the exploitation of the financially vulnerable. Advocates of a legal market in human organs acknowledge that the system would need to be highly regulated with strict controls and penalties to prevent abuse and the exploitation of the financially vulnerable. Opponents to this system argue that paying for organs could lead to coercion of the economically disadvantaged and to the commodification (to assign a monetary value to something that traditionally would not be considered in monetary terms) of the human body. They fear that the developed world will begin to view developing countries merely as an organ reservoir. There are also concerns that organs would no longer be allocated on the basis of medical need but on the basis of ability to pay.



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