

Living-donor liver transplantation

Information for the public

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What has NICE said?

Living-donor liver transplantation is safe enough and works well enough for use in the NHS for suitable donors and recipients, providing that legal and regulatory requirements are met.

NICE is asking health professionals to send information about all donors and recipients who have the procedure and what happens to them afterwards to a database at the NHS Blood and Transplant UK transplant registry so that the safety of the procedure and how well it works can be checked over time.

What does this mean for me?

Liver donors and recipients face significant risks. Your health professional should fully explain what is involved in having this procedure and discuss the possible benefits and risks with you. You should have screening and counselling about the risks of the procedure. You should also be told how to find more information about the procedure and provided with clear written information, including information from the Human Tissue

Authority.

An interview with an independent assessor will be arranged, as required by the Human Tissue Authority. This is to make sure that you are not being persuaded to have the procedure against your will, that no reward is involved and that you have enough information to make a decision.

All of this should happen before you decide whether you want to have this procedure or not.

Your health professional should ask you if details of your procedure can be collected.

Other comments from NICE

NICE said that donors must be followed up after the procedure to check their health, including their psychological wellbeing.

Your healthcare team

A healthcare team experienced in living-donor liver transplantation should carry out the procedure in specialist transplant centres.

The condition

A liver transplant is an option for people with end-stage liver failure (for example because of liver disease or infection) and some types of primary liver cancer.

Organs for transplant usually come from donors who have recently died, but there aren't enough organs available. A living donor is usually a blood relative (for example, a parent, brother or sister) but could also be a spouse, partner or volunteer. The donor could also be someone they have never met and who is not known to them (called non-directed altruistic donation).

NICE has looked at using [living-donor liver transplantation](#) as another treatment option.

[NHS Choices](#) may be a good place to find out more.

The procedure

A living-donor liver transplant is a major operation to replace a diseased or damaged liver with a healthy one from a living human donor. The donor has an operation under general anaesthesia to remove either the right lobe of their liver (usually for transplanting into an adult) or the left lobe (usually for a child). Sometimes a liver segment is removed, and this can be transplanted into an infant or young child. The right lobe is larger than the left and is easier to transplant. However, removing it from the donor is more complex and carries more risks.

The donated liver is transplanted immediately into the recipient. The transplanted liver and the remaining part of the donor's liver regrow into a normal-sized liver.

Benefits and risks

When NICE looked at the evidence, it decided that living-donor liver transplantation could be carried out in the NHS providing the [legal and regulatory requirements](#) are met. The 18 studies (including reviews and surveys) that NICE looked at involved more than 30,000 patients.

Generally, the studies showed the following benefits:

- Survival was higher in children receiving liver transplants from living donors (92%) than from dead donors (81%) and the liver tissue survived in more children having live liver transplants (81%) than from dead donors (73%).
- For transplants between adults, survival rates were similar for transplants from live and dead donors.
- Nearly all donors returned to normal life by 6 months after surgery. By this time, the donor's liver had recovered to 89% of its original size.
- The quality of life of donors was better than that of the general population over a 14-year period after donation.

The studies showed that there are significant risks of living-donor liver transplantation for both recipients and donors. These include death and some potentially life-threatening complications. The risks for donors and recipients are different. Your doctor should make sure you understand the risks involved, and explain them in detail. Counselling is required

before any decision.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

Medical terms explained

Legal and regulatory requirements

NICE has said that the requirements of the [Human Tissue Authority](#), who give approval for donations to take place, must be met when carrying out living-donor liver transplantation.

There are also guidelines about living-donor liver transplantation, which must be followed:

- The NHS Blood and Transplant (NHSBT) Organ Donation and Transplantation Liver Advisory Group's [Liver Selection Policy](#).
- The British Transplantation Society's guidelines for [Directed Altruistic Organ Donation](#).

About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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Accreditation

