

Histocompatibility testing for kidney transplant donors

Information for donors



Your guide to laboratory testing and giving your permission, keeping you in control of the process.

Why do you need my permission?

You have come forward to see if you might be a suitable organ donor for a family member or close friend who needs a kidney transplant. Before you can donate your kidney, you will need to provide blood samples for a number of tests.

Your blood samples will be sent to the Histocompatibility and Immunogenetics (H&I) laboratory to carry out these tests.

There are two tests - HLA typing and crossmatching.

This leaflet will explain the tests, and what happens to your sample after we have tested it.

If you do not give your permission, we cannot carry out tests or keep your samples.



HLA Typing

You inherit your HLA (Human Leucocyte Antigen) type (also called tissue type) from your parents. HLA's are found on the surface of most cells in the body. If your HLA is different to the patient's, their immune system may recognise the difference and attack the kidney, causing it damage. The better the HLA match between you and the recipient, the better the chances of the transplant being successful in the long term. The best chances of finding a good match are among close family members, especially brothers and sisters. However, many transplants work well despite differences between the donor and recipient tissue types. How well donor's and recipient's tissue match has less effect on how the kidney performs when there is a live donor, compared to when the kidney is from a deceased donor (a donor who has died).

Tissue typing can be used to establish relationships in families. This is not always a clear-cut picture and just because a relationship is not proven by laboratory tests this does not necessarily mean that people are not related. The clinical team responsible for your care are obliged to ask whether donors wish to be told if results of testing do not confirm a family relationship. A slip to record your decision in relation to this is provided at the rear of the pamphlet and should be completed and returned to the Transplant Co-ordinator.

We must identify your tissue type to see how good a match you are with the recipient. We will do this by testing a sample of your DNA, which we get from your blood cells. The laboratory will store a sample of your DNA in case we need to carry out further tests in the future to help with the care of the patient having the transplant.

We will give the results of your HLA typing to the team at the hospital that is caring for the patient. If the patient is transferred to another hospital after we have carried out your tests, and you still want to donate your kidney, your results will be sent to the new team. If we find you to be a suitable match and the transplant goes ahead, we will send your test results to NHS Blood and Transplant (NHSBT), who must keep records of all organ transplants that take place in the UK.

Crossmatching

The crossmatch is a direct test between your white blood cells and a blood sample from the recipient. This is a test of whether the recipient has any antibodies in their blood that could attack the transplanted organ and cause it to fail. We often call it "doing a transplant in a test tube". A transplant cannot usually take place unless the result of this test shows that none of these antibodies are in the recipient's blood at the time of transplant.

We may carry out more than one crossmatch while you are waiting to donate your kidney especially if there is a long gap between these tests. This is because the patient's antibodies can change over time especially if they have:

- Received a blood transfusion
- Had another transplant
- Had an infection

If the transplant goes ahead, we will store your samples in case we need to carry out further tests to help with the transplant recipients ongoing treatment.

We may ask you to give more samples after the transplant for testing to help with the patients care and management. We will use these test results to help the transplant team decide the best treatment for the patient.

What happens to my sample?

When we no longer require your samples for testing, or we have more samples than we need, the law allows us to use these anonymously for quality control (making sure our tests are working correctly), research, for checking new procedures, or for educating and training doctors, nurses, scientists and other professionals working in healthcare.

This helps us maintain accurate testing procedures and improve our knowledge, and so provide the best possible care for all patients.

However, if you do not want us to use your samples for any of the purposes above, you must tell your doctor or the person taking your blood (or both). We will respect your wishes and dispose of any samples we no longer need for immediate patient care.

Data Storage

All data obtained by the laboratory is held and used in compliance with the Data Protection Act 2018.

Name:

Date of Birth:/...../.....

Donor to:

Relationship:

I wish / do not wish (delete as appropriate) to be informed of results of laboratory testing that fail to confirm the identified relationship.

Signed:

Date:/...../.....



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Your views matter



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