

# Blood Group Incompatible (ABO-i) Kidney Transplantation

Living kidney donors do not need to be the same blood group as recipients. However, they do need to be blood group compatible (see below). If your donor is medically suitable to donate a kidney but is from an incompatible blood group, transplant may still be possible. This information sheet will explain treatment options for blood group incompatible kidney transplantation. Talk to your transplant team about your options.

## Blood group compatibility

Every person makes antibodies to blood groups that are not their own. It is important to identify blood groups in kidney transplants, (See Diagram 1).

		Donor			
Recipient	Blood Group	O	A	B	AB
	O	✓	✗	✗	✗
	A	✓	✓	✗	✗
	B	✓	✗	✓	✗
	AB	✓	✓	✓	✓

Diagram 1: Blood group compatibility

There are now ways we can remove these antibodies before the transplant when recipient and donor blood groups are not compatible, we call this blood group incompatible transplant. This information sheet outlines how this process works.

## How does this work?

Antibodies are found in the liquid part of the blood called plasma. The key to a blood group incompatible transplantation is to remove or lower these antibodies from your blood.

The first step is to check the antibodies in your blood and your donor's blood. Sometimes people do not need treatments because their antibody is very low. Sometimes the levels of antibodies are too high to be safely removed.

If it is safe, we will plan for you come to hospital for appointments and treatments. The number of treatments depends upon the number of antibodies present. These treatments occur the week or two before the transplant and sometimes again in the week after the transplant. In a few weeks, your body's immune system gets use to the kidney and transplant medications keep things in check.



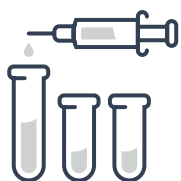
## How are these antibodies removed?

Removing the antibodies involves a procedure like dialysis, where we pass your blood through a filter. You will need either a fistula or a tunnelled line (inserted into the vein in the neck). Tunnelled lines are temporary and removed in the week after the transplant. We continue to check your antibody levels during treatment. In about 1 in 10 cases, it may not be possible to reduce your antibodies. In this case it may not be possible to proceed with blood group incompatible transplantation.



## What other treatments are available?

Kidney Exchange. You may prefer to exchange your donor's kidney for a compatible one. The Australia and New Zealand Paired Kidney Exchange (ANZKX) is a good option, and your kidney team will discuss this with you.



For more information about blood group incompatible transplants please contact  
The Queensland Kidney Transplant coordinators on:

**Phone: (07) 3176 6963**

Email: [QKTSCoordinators@health.qld.gov.au](mailto:QKTSCoordinators@health.qld.gov.au)



In regards to this treatment contact:

High dependency - Acute dialysis unit

**Phone: (07) 3176 2925**