



Having Your KIDNEY Donor Find YOU!

Recipient & Donor Compatibility

As was expressed in Episode #8, there are many factors that go into whether a recipient and donor are compatible, this document does not cover all of them.

One that was not mentioned in that episode are HLAs. (Human Leukocyte Antigens.) In the early days of kidney transplants, recipients and donors needed to match all 6 antigens that have been identified as having an important role for the transplant to be successful. The new anti-rejection drugs that recipients take are so effective, that a perfect “match” is no longer needed. Therefore, HLA matching typically is not a factor that determines whether someone is compatible.

Here’s additional information on the three important blood tests done to determine donor/recipient compatibility.

BLOOD TYPE MATCHING

Scientists have known for many years that blood group matching is important for blood transfusions and it is equally important in kidney transplantation.

There are four major blood types. These types are simply noted as blood type A, B, AB and O and referred to as ABO. The Rh factor, the positive or negative feature in blood typing is not an issue when determining compatibility between a donor and a recipient.

Blood Type Compatibility Chart

Donor	Can	Recipient Blood Type
Blood Type	Donate to	
O	48%	A,B, AB, O
A	32%	A or AB (O)*
B	16%	B or AB
AB	4%	AB

*(Blood Type O is the **Universal Donor**: donors with O blood are compatible with any other blood type)*

Recipient

Blood Type	Can Receive	Blood Type
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O	O (A)*
A	A or O
B	B or O
AB	A or B or AB or O

(Blood Type AB is the **Universal Recipient**: recipients with AB blood are compatible with any other blood type)

* There is a subgroup of donors who are blood type A's called A2s that may be able to donate to a blood type O recipient. If you are blood type O and have a blood type A donor, you should ask your center if your donor would be able to be your donor.

PRA's - Panel Reactive Antibodies

PRA's, panel reactive antibodies is a blood test that measures the level of antibodies in the recipients blood. The more antibodies you have, the more difficult it will be to find a compatible donor. A person's PRA can be anywhere from 0% to 100%. Your PRA represents the percent of the U.S. population that the antibodies in your blood would react to and reject the kidney. For example, having a PRA of 25 means that 25% of the population will not be able to donate a kidney to you. The antibodies present in your blood would attack the transplanted kidney and can cause immediate rejection.

You can develop high PRA's from a blood transfusion, an earlier transplant or for some women, from being pregnant.

There are ways of lowering PRA's through a procedure called Plasmapheresis a blood-cleansing process that can lower the dangerous antibodies from the blood. If you have a high level of antibodies, also referred to as being "sensitized" you should speak to your center to about plasmapheresis.

CROSS MATCHING

Cross matching is sometimes done early in the evaluation process and always done a few days before you are transplanted. It is usually one of the final test performed on a kidney donor and recipient.

The basic cross match test involves a mixing of cells and serum of the donor and recipient to determine whether or not the recipient will respond to the transplanted organ by attempting to reject it

You want the cross match to be negative. A negative cross match means that the recipient has not responded to the donor and therefore transplant can proceed .