Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Common Questions About Blood Transfusions and Tests Before Blood Transfusions

This information answers common questions about blood tests you'll have before your blood transfusion.

What is a blood transfusion?

A blood transfusion is when you get donated blood through an intravenous (IV) line. You can also get the blood through an implanted port, central venous catheter (CVC), or peripherally inserted central catheter (PICC).

Blood is made up of different components (parts). The main blood components are red blood cells, white blood cells, platelets, and plasma. You can get 1 or more blood components during your transfusion. Your care team will tell you what to expect.

To learn more, read *About Your Blood Transfusion* (www.mskcc.org/pe/about-blood-transfusion).

What is a type and screen?

A type and screen is a set of tests everyone has before getting a blood transfusion.

- **Type** refers to blood typing. Blood typing tells us your blood group and your Rh type. Your blood group may be A, B, AB, or O. Your Rh type may be positive (+) or negative (-). Together, these make up your blood type. We need to know your blood type to know what type of blood is safe to use for your transfusion.
- **Screen** refers to an antibody screen. The screen looks for antibodies in your blood. Antibodies are proteins your immune system makes. It's important we know about antibodies in your blood that could react with the transfused blood.

We will take a blood sample for the type and screen. We will send the sample to the central MSK blood bank in Manhattan for testing.

If you're getting your transfusion at a regional site, we will take the blood sample 1 to 2 days before your transfusion.

What is a positive antibody screen?

A positive antibody screen means we saw a reaction in your blood that may cause problems with your blood

transfusion. If you have a positive antibody screen, we'll do more testing.

Why do I need more testing if I have a positive antibody screen?

More testing may show your blood has antibodies that are reacting with red blood cells. It's important to identify these antibodies and what they're reacting to.

Once we know what the antibodies react to, we can choose donor blood that does not cause a reaction. This is called compatible blood. A blood transfusion that's not compatible can be very dangerous.

How long does the testing after a positive antibody screen take?

The time it takes to complete the testing varies. On average, it takes 3 to 4 hours once the central MSK blood bank gets your blood sample. For some people with complex antibodies, it can take much longer, sometimes days.

What does it mean to have red blood cell antibodies?

Red blood cell antibodies mean your immune system sees a difference between your red blood cells and the donor

ones. It made antibodies to mark the donor red blood cells to clear them from your body.

Red blood cell antibodies can cause very bad reactions if you get donor blood that's not compatible.

That's why it's important to find donor blood that is compatible with your red blood cell antibodies. This takes extra testing and more time. You may need to wait longer before your transfusion.

What is a crossmatch?

A crossmatch is how we test your blood against donor red blood cells to make sure they're fully compatible. It's an important test to help us know what blood to use for your transfusion. This is even more true if you had a positive antibody screen. Crossmatching lowers your risk of reactions.

How often do I need a type and screen?

You need one if you're getting a blood transfusion and it's more than 3 days since your last type and screen.

With every blood transfusion, there's a risk your immune system could start making new antibodies. We repeat the type and screen every 3 days to look for new antibodies. We also check for red blood cell antibodies we have found

in the past.

I’m not feeling well. Why can’t I get a transfusion to help?

Sometimes, a blood transfusion can have more risks than benefits. For example, a transfusion can do more harm than good if your blood counts are above a certain level.

MSK has criteria (rules) for when someone needs a blood transfusion. A group of MSK’s doctors and other experts created them based on the latest evidence. The criteria consider both the benefits and the possible risks of transfusions.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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