

Tissue Type Test (HLA)

Table of Contents

Test Overview

Why It Is Done

How to Prepare

How It Is Done

How It Feels

Results

What Affects the Test?

Test Overview

A tissue type test is a blood test that measures substances called antigens on the surface of body cells and tissues. Checking the antigens can tell if donor tissue is safe (compatible) for transplant to another person. This test may also be called HLA typing. Antigens can tell the difference between normal body tissue or foreign tissue (for example, tissue from another person's body). Tissue type helps find the best match for tissues or blood cells (such as platelets). Some times tissue type test is done to check the autoimmune diseases.

A special pattern of antigens (called tissue type) is present on each person's cells and tissues. Half of each person's antigens come from (inherited) the mother and half from the father. Identical twins have the same pattern, but everyone else has his or her own special pattern. Brothers and sisters have a 1-in-4 chance of having an identical match. Each person's antigen pattern can be "fingerprinted" through a tissue type test.

- The closer the match of antigens, the more likely that transplanted tissues or organs will not be rejected.
- The more similar the antigen patterns are from two people, the more likely it is that they are related.

Two main antigen groups are used for a tissue type test. Class I has three classes of antigens (HLA-A, HLA-B, HLA-C) that are found on some kinds of blood cells. Class II has one class of antigens (HLA-D) that are found only on certain cells in the body. There are many different types of antigens in each category.

[↑Top](#)

Why It Is Done

A tissue type test is done to:

- See if the antigen pattern for donate tissue or organs (including a blood platelet transfusion or bone marrow transplant) is a match. The success of a transplant depends on how closely the antigen patterns match. The antigen patterns are most likely to be similar when the donated organ or tissue comes from a close relative of the person.
- A tissue type test may be done as part of a paternity test to check to see if a man could be the father of a child.
- Find people who may have a high chance of certain autoimmune diseases.

[↑Top](#)

How to Prepare

If you are donating tissue or blood cells, you must discuss your medical history with your doctor —such as a history of cancer, infections, high-risk behaviors, use of drugs, exposure to toxins. This will provide an important information, that whether your organ can be utilized as donor.

[↑Top](#)

How It Is Done

The health professional (Phlebotomist) drawing blood will:

- Wrap an elastic band (tourniquet) around your upper arm to stop the flow of blood. This makes the veins below the band larger so it is easier to put a needle into the vein.

- Clean the needle site with alcohol.
- Put the needle into the vein. More than one needle stick may be needed.
- Attach a tube to the needle to fill it with blood.
- Remove the band from your arm when enough blood is collected.
- Put a gauze pad or cotton ball over the needle site as the needle is removed.
- Put pressure to the site and then a bandage.

[↑Top](#)

Results

A tissue type test is a blood test that measures substances called antigens on the surface of body cells and tissues. Checking the antigens can tell if donor tissue is safe (compatible) for transplant to another person.

- For organ or tissue transplants, the results of tissue type show whether the donated tissue matches. The antigen pattern match is different for each type of transplant. For example, the match for a bone marrow transplant needs to be closer than the match needed for a kidney transplant.
- To check family relationships, the more alike the antigen patterns are, the more likely it is that the two people are related.
- To find a specific antigen of some diseases, the more likely that the disease is present.

[↑Top](#)

What Affects the Test?

Reasons you may not be able to have the test or why the results may not be helpful include having had a blood transfusion in the past 3 days.