



UNLOCKING THE MYSTERY OF DONATION TESTING

Does every donation get tested?

Yes. Every donation. Even donations from our regular and frequent donors.

Why do we test?

Along with the donor questionnaire, this is a key part of ensuring the safety of the blood.

What are we looking for?

We need to know the ABO and Rh (positive or negative) blood types and whether there are any attack molecules (antibodies) which could target red cells. We also need to know if the donor has ever been exposed to certain viruses and bacteria.

How do we test for the viruses?

There are two ways to find evidence of exposure to a virus:

1. Look for the body's reaction to a virus. Whenever exposed to a virus, our body will make antibodies to help protect us. These can be measured in our lab.
2. Look for the virus itself. We perform tests for specific proteins (antigens) or viral genetic code which is made of molecules called RNA or DNA.

Which viruses do we look for?

On all donations used for the production of fresh blood components we look for:

- antibodies to HTLV I/II, hepatitis C and HIV 1/2
- the virus itself by checking hepatitis B surface antigen (a specific protein), hepatitis B DNA, hepatitis C RNA, and HIV-1 RNA
- antibodies to a bacteria that causes syphilis.

Why do we look for both virus and antibodies?

This increases our the chance of detection, especially early infection.

Do we perform any other tests?

Some blood is also tested for:

- **CMV.** A virus which can cause problems for patients with poor immune systems.
- **Malaria.** This testing is only for donors from at-risk areas.
- **Bacteria.** All platelets are tested for bacterial growth.
- **Ferritin.** This measures how much iron a person has stored in their body. We do this test on samples from donors with low haemoglobin.
- **Other blood groups.** There are plenty more blood groups than ABO and Rh. Testing for these is important for some patients who react to certain blood groups.
- **Specific virus antibodies.** High levels of some antibodies is a good thing. For example, we send plasma with high level of antibody to the chickenpox shingles virus (zoster) to CSL for the manufacture of a vaccine.

Is that it for testing?

Not quite. To ensure ongoing suitability and wellbeing of apheresis donors, additional blood tests are performed at or before their first donation and repeated annually if required. We also check a small number of all blood components for quality control purposes.

BLOOD FACT

Hepatitis C RNA can be detected within three days of infection.