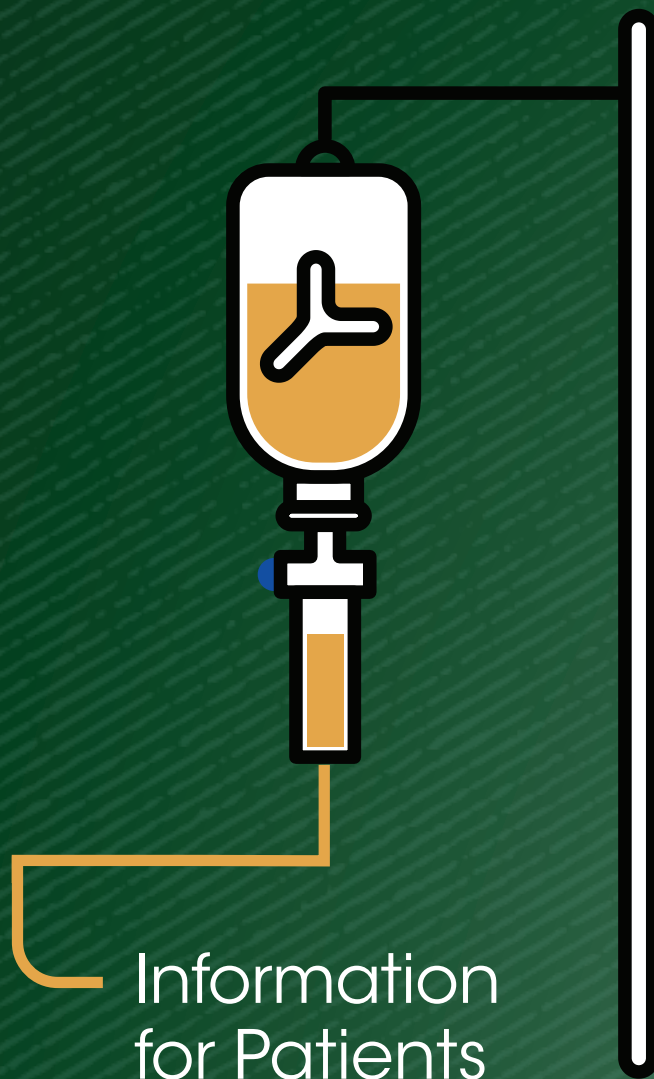


Your guide to blood transfusion

Intravenous and subcutaneous immunoglobulin blood products



What are Immunoglobulins?

Put simply, they are antibodies produced naturally by our immune system to help fight infections caused by bacteria and viruses. There are various types of immunoglobulins in the bloodstream, immunoglobulin G (IgG) is the most common.

What are Immunoglobulin Blood Products?

They are clear solutions of immunoglobulins (Ig), collected from the plasma of blood donors. The plasma is tested, processed, purified and then batched into glass bottles. Ig blood products available in New Zealand, include:

- ♦ **PRIVIGEN® NZ and HIZENTRA® NZ**; made from plasma donated by New Zealand voluntary blood donors.
- ♦ **PRIVIGEN® and HIZENTRA®**; made from plasma donated by blood donors in Europe and North America.
- ♦ **GAMUNEX® 10%**; made from plasma donated by blood donors in North America.



Who may need Immunoglobulin Blood Products?

Being given immunoglobulin is called Immunoglobulin therapy. It's used for a variety of medical conditions, such as one of the following:

Immunoglobulin replacement:

When a person cannot make enough antibodies themselves to fight infections, the antibodies made by blood donors are used to **'replace'** (top-up) your own.

Low levels of antibodies may be due to a rare inherited condition, known as primary immunodeficiency; or secondary to an underlying disease or treatment (acquired immunodeficiency).

Immunomodulation:

In autoimmune diseases, the immune system attacks the body instead of protecting it, damaging cells, nerves or tissue. The antibodies made by blood donors are believed to **'modulate'** (modify) the immune system to prevent it from attacking the body.

Conditions such as idiopathic thrombocytopenic purpura (ITP), Guillain Barré Syndrome (GBS), Chronic Idiopathic Demyelinating Polyneuropathy (CIDP) and Kawasaki Disease can respond to immunoglobulin therapy.

There are specific criteria for use and your doctor will discuss this with New Zealand Blood Service (NZBS) specialists to ensure it is the right treatment for you.

Before you start, your doctor will discuss the benefits, risks and treatment alternatives, providing you with time to ask questions. If you agree to treatment, your doctor will also ask you to sign a consent form.

Your response to immunoglobulin will be monitored by your doctor, to ensure it is working well.

Sometimes your doctor may adjust the dose, add to or stop the treatment.

How is it given?

Immunoglobulin therapy can be given intravenously or subcutaneously and is usually administered regularly to maintain the level of IgG in the blood.

Intravenous immunoglobulins (IVIg) include *PRIVIGEN*[®] NZ, *PRIVIGEN*[®] and *GAMUNEX*[®] 10% which are given as an infusion directly into your bloodstream via a drip (cannula placed in your vein).

- IVIg therapy can take several hours to give. The time depends on the dose and volume prescribed for you. The infusion will always start slowly and every 30 minutes the rate (how fast it can be given) can be increased.
- It is usually given by a nurse in a hospital or day unit every 3-4 weeks. During the treatment the nurses will monitor you, including your temperature and blood pressure.

Subcutaneous immunoglobulins (SCIg) include *HIZENTRA*[®] NZ and *HIZENTRA*[®] which are given via a needle placed under the skin, the solution enters your blood-stream slowly over a few days.

- SCIg therapy is quicker to give, but only small volumes can go under the skin at any one time. Sometimes more than one needle and site is needed to ensure you get your full dose.
- Because the volume is smaller, it is normal to have an injection once a week. Some people prefer to have their weekly dose given over more than one day.
- The majority of people learn how to self-administer SCIg, which means you can have your treatment in your own home, at a time that suits you best.



How safe are Immunoglobulin Blood Products?

Collection and processing of immunoglobulins from plasma is strictly controlled and regulated to ensure the product you receive is safe.

All blood donors in New Zealand, Europe and North America are always checked before donating plasma. The donor must be in good health and meet strict health and lifestyle screening criteria.

Every plasma donation must test negative for blood-borne viruses and infections including HIV / AIDS, syphilis, hepatitis B (HBV) and hepatitis C (HCV).

During the process of extracting the antibodies from plasma, multiple steps of viral inactivation and removal are undertaken to reduce the potential risk of transmitting any infections.

Viral infections such as HIV / AIDS, syphilis, HBV or HCV and prion infections such as Creutzfeldt Jakob Disease (CJD) and variant CJD, have never been spread via immunoglobulin blood products.

What are possible side effects of treatment?

Some people develop a headache during or after an infusion. A few experience a variety of other symptoms including fevers, chills, flushing, rashes, muscle aches or nausea. If symptoms happen during the infusion, it will be slowed or stopped. Medications such as paracetamol or antihistamines might be given. Such symptoms often settle quickly. Skin rashes however, can take much longer to go.

If your treatment is subcutaneous, localised redness or swelling may occur where the needle was placed.

After the infusion some people may feel more tired than usual or experience generalised muscle or joint aches. Such symptoms usually resolve after a day resting.

Rare side effects:

IVIg may cause a severe headache for several days, known as aseptic meningitis (inflammation of the lining of the brain). Medications, a slower rate of infusion and ensuring you stay well-hydrated can help to prevent this complication. Always report a persistent headache to your doctor or nurse.

With higher doses, liver or kidney problems, blood clots (more likely in people with circulation problems) and haemolytic anaemia (when red cells can be targeted and broken down) can occur.

Severe allergic reactions are very rare but require urgent medical intervention. Symptoms can include difficulty breathing, chest tightness, wheezing, rash, swelling of the face or tongue and a drop in blood pressure.

It is always important to report any symptom or concern to your healthcare professional, as a slower rate, a different product or a different treatment may be needed. All reactions are reported to NZBS.

What about vaccinations?

Your body may not be able to fully respond to vaccines during immunoglobulin therapy. Talk to your doctor about the best time to receive any immunisations.



Things to note before you start treatment

- ♦ Your weight and height will be measured to work out the right dose
- ♦ You will need to consent for treatment
- ♦ If your blood group is unknown, a blood sample will be needed
- ♦ If you have an immunodeficiency, blood tests to measure your Ig levels will be needed at intervals during your treatment

If you are scheduled for intravenous immunoglobulin (IVIg)

- ♦ Ensure you are well-hydrated before starting each treatment
- ♦ Be prepared for a long infusion – bringing a book or electronic device and earphones might be useful
- ♦ Ig levels can rise and fall between doses, talk with your doctor if you become tired between doses
- ♦ Tell your doctor early if you plan to travel, so that continuous treatment can be organised

If you are scheduled for subcutaneous immunoglobulin (SCIg)

- ♦ You will be taught to self-administer the product
- ♦ You will need to safely store your product at home – your doctor or nurse can provide advice on how to do this



**For more information,
scan here to go to:**



**[nzblood.co.nz/
patients/](https://nzblood.co.nz/patients/)**



**Consumer Medicine
Information
mdsafe.govt.nz**

If you have an immunodeficiency

Immune Deficiencies Foundation of New Zealand (IDFNZ) & the Kids Foundation are dedicated to helping children and adults with suspected or diagnosed Primary Immune Deficiencies (PID).



Phone: 0508 300 600
Email: info@idfnz.org.nz
Scan to go to idfnz.org.nz

*PRIVIGEN® NZ, PRIVIGEN®, HIZENTRA® NZ and HIZENTRA® are
registered trademarks of CSL Group of Companies.*

GAMUNEX® 10% is a registered trademark of Grifols.