

Your guide to blood transfusion

Intramuscular immunoglobulin blood products



Information
for Patients

What are immunoglobulins?

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 intramuscular immunoglobulin blood products?

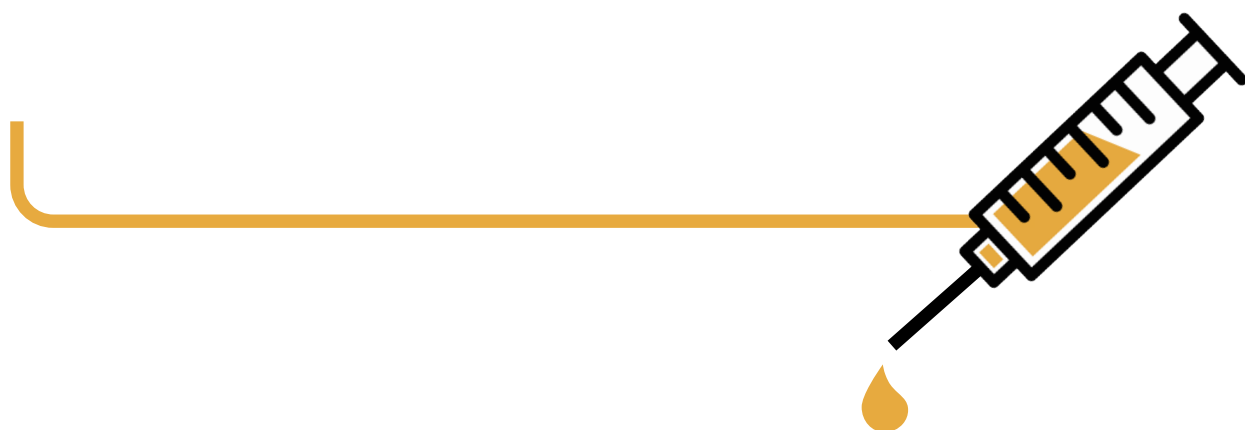
They are clear solutions of specific antibodies, collected from the plasma of blood donors in Aotearoa New Zealand (NZ) or overseas. The plasma is tested, processed, purified and then batched into small glass bottles. Intramuscular immunoglobulin (IMlg) solutions are not vaccines. IMlg provides passive immunity (short-term protection) against specific infections, whereas a vaccine provides active immunity (long-lasting protection).

How are they given?

The clear IMlg solution is injected via a needle directly into a large muscle (intramuscular), usually in the thigh or upper arm, allowing the antibodies to be quickly absorbed into the bloodstream.

Why might you need an intramuscular immunoglobulin injection?

After exposure to certain viral or bacterial infections, an IMlg injection may be required to protect you from developing the infection yourself. The antibodies collected from blood donors help fight the infection when your immune system is weakened or hasn't made the specific antibodies itself.



Which immunoglobulin injection is right for you?

The injection you receive is for **prophylaxis** (to prevent the disease from developing) or **modification** (to reduce the effect of the infection). The type of IMIg solution needed, when it should be given and how much might be needed, depends on the infection you have been exposed to.

Four types of IMIg solution are commonly available to provide immediate protection from viral infections such as measles, shingles, hepatitis A and B, or the toxins made by bacterial infections like tetanus. Although rare, an IMIg solution providing protection against rabies is also available. The names of the products available in NZ can sometimes change. Your healthcare professional will provide you with more information on the IMIg solution that is right for you before you start treatment.

The effect and benefit of the immunoglobulin injection you receive can vary. In some cases, the infection will be prevented completely, in others the infection will be in a milder form. How soon after being exposed to the infection and the dose of IMIg given can affect the outcome. If the viral infection has started, the injection is unlikely to be of much help. The protection you receive is short-term, lasting several weeks or months, this is why vaccination against the infection may also be discussed.



What type of immunoglobulin solutions are available?

💧 Normal Immunoglobulin (Normal Ig)

Normal Ig can be used if you have been exposed to measles | te mate karawaka, within the last 6 days and are not vaccinated or fully protected against the disease. Measles is a serious and highly contagious viral infection, which means it can spread easily between people who are not immune (lack the antibodies to fight the infection).

Normal Ig is also used if you have been exposed to hepatitis A | te mate ate kakā A, within the last 2 weeks. It can provide protection for up to 3 - 6 months, depending on the dose. If Normal Ig is not available or is contraindicated (has other risk factors for you), hepatitis A vaccine may be offered instead. Vaccination is preferred if you plan to travel to countries with a high risk of the disease.

In rare situations, your healthcare professional may recommend Normal Ig for infections such as rubella | te karawaka tiamana during pregnancy or chickenpox | te koroputa hei.

💧 Hepatitis B Immunoglobulin (HBIg)

HBIg is used if you are exposed to blood or body fluids containing the hepatitis B virus | te mate ate kakā B. If you are pregnant and have hepatitis B, the infection can be passed on to your baby | pēpi at or around the time of birth.

To provide immediate protection against the virus, your newborn pēpi needs to be given HBIg as soon as possible after birth. The hepatitis B vaccine is also required to provide long-term immunity (protection).



💧 Tetanus Immunoglobulin (Tlg)

Tlg is used if you have been exposed to tetanus | te pakaua hukihuki, a rare but serious bacterial infection. Tetanus spores and bacteria are commonly found in soil in New Zealand farms, towns and cities. The bacteria can enter the body through any cut or wound, no matter how minor. Only a small amount of bacteria can cause the disease.

If there is any doubt about your immunity and you have a contaminated wound, lots of tissue damage or a deep puncture-type cut or wound, your healthcare professional will recommend Tlg. You will also be offered the tetanus vaccine, to provide long term protection from the effects of the tetanus toxin released into your bloodstream.

💧 Zoster Immunoglobulin (Zlg)

Zlg is used if you are exposed to the varicella-zoster virus (VZV) and, you are not immune and are at high risk of severe illness. VZV causes chickenpox | te koroputa hei a, or shingles | te mate io kirikiri.

Zlg is normally given within 96 hours of exposure to the virus, to prevent or reduce the severity of the disease for:

- Pregnant women who are not immune (to protect the unborn baby | pēpi)
- Newborn pēpi, if their mother develops chickenpox the week before or after birth
- Premature newborns, if their mother is not immune, especially if born before 28 weeks
- Anyone with a weakened immune system who may not be able to fight the infection, this includes people on chemotherapy for cancer, certain autoimmune diseases or immune deficiency.



💧 Rabies Immunoglobulin (Rlg)

NZ is rabies-free, but some countries are not. Rabies | Repe is a deadly viral disease that can infect animals including unvaccinated dogs, bats, racoons and cats. Other animals such as monkeys, foxes and skunks can be carriers of the virus.

If you have been bitten or scratched by an animal infected with rabies while travelling overseas, Rlg will be offered to protect you from developing the disease when you return home to NZ. Rabies vaccination before travelling to high-risk countries is usually recommended.



What are possible side effects?

IMlg solutions are unlikely to cause severe side effects.

Mild side effects can include discomfort, redness or swelling at the site of the injection. This is more common if a larger volume (more than 5 mL) is injected into your muscle.

Other less common side effects include a headache, fatigue, fever or chills.

Allergic reactions are very rare. If you lack IgA immunoglobulin an allergic reaction may occur. If this occurs, let your healthcare professional know straight away, and they will stop or change your treatment.



How safe are intramuscular 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 infections, such as syphilis, human immunodeficiency virus (HIV), hepatitis B (HBV) and hepatitis C (HCV).

When immunoglobulins are extracted from plasma, pathogen inactivation and removal (of viruses, bacteria and other microbes) are used to reduce the potential risk of transmitting disease. There have been no reported cases where immunoglobulin blood products provided by NZBS have caused infections including syphilis, HIV, HBV, HCV, Creutzfeldt - Jakob disease (CJD) or variant CJD.



Things to know before you receive the injection



Your healthcare professional will discuss which intramuscular immunoglobulin (IMIg) blood product is needed, its name and source of the donated plasma, as well as:

- its benefits and potential risks
- any treatment alternatives.



Sometimes the IMIg solution available may not be registered for use in Aotearoa New Zealand (NZ) but is approved and registered for use overseas, where the same strict rules for safety and testing apply. Your healthcare professional will discuss this with you as part of the consent process before the product is prescribed.



Your healthcare professional will provide you with time to ask questions.



If you agree to treatment, you will need to sign a consent form to confirm you are happy to proceed.



The injection into your muscle will take less than a minute or two. If you need a large dose and volume, a second injection might be needed.



After you receive the injection your healthcare professional will ask you to stay close-by for 20 minutes, so they can ensure you feel well and don't experience any immediate side effects.



Always report any symptoms or concerns to your healthcare professional.

All reactions are reported to New Zealand Blood Service (NZBS).

For more information scan here to go to



nzblood.co.nz/patients



**Consumer Medicine Information
medsafe.govt.nz**

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