

Immunoglobulin replacement therapy

Immunoglobulin replacement therapy is a treatment you might have if your antibody levels are low and you have severe or repeated infections. This can affect some people with lymphoma, although most people do not need immunoglobulin replacement therapy.

On this page

[What are immunoglobulins?](#)

[What is immunoglobulin replacement therapy?](#)

[Who might need it?](#)

[How is immunoglobulin replacement therapy given?](#)

[What side effects might I experience?](#)

We have separate information about the topics in **bold font**. Please get in touch if you'd like to request copies or if you would like further information about any aspect of lymphoma. Phone 0808 808 5555 or email information@lymphoma-action.org.uk.

What are immunoglobulins?

'Immunoglobulins' is another name for antibodies. Antibodies are proteins that your immune system makes in response to infection or vaccination. They help fight or prevent infections by sticking to the surface of germs (bacteria, viruses and parasites). This can:

- stop the germ infecting you
- act as a signal to tell immune cells to kill the germ

- activate substances that kill the germ.

Immune cells called **B cells** (B lymphocytes) usually make antibodies. If your B cells aren't working properly, they might not make enough antibodies.

What is immunoglobulin replacement therapy?

Immunoglobulin replacement therapy is treatment that boosts your antibody levels when they are low. This can help you fight infection.

It is different from the **antibody therapy** you might have as part of your treatment for lymphoma. Antibody therapy uses antibodies that have been made in a lab specifically to attack the lymphoma cells.

Immunoglobulin replacement therapy uses natural antibodies collected from blood donations. **Donors** complete a medical questionnaire first to make sure they are suitable, and their blood is carefully screened for infections. It is then filtered and processed to separate out the antibodies.

Who might need immunoglobulin replacement therapy?

Most people with lymphoma do **not** need immunoglobulin replacement therapy.

If your antibody levels are low, you might need regular antibiotic treatment to help prevent infections. For most people, this provides enough protection against infections and immunoglobulin replacement therapy isn't necessary. You are only likely to need immunoglobulin replacement therapy if your antibody levels are low **and** you have had severe or repeated infections often requiring hospital admission, despite regular preventative oral antibiotic treatment.

People who may need immunoglobulin replacement therapy include those who:

- have **chronic lymphocytic leukaemia (CLL)**
- have **B-cell non-Hodgkin lymphoma**
- have **Hodgkin lymphoma**
- have had a **donor (allogeneic) stem cell transplant**
- have had **CAR-T cell therapy**
- have had treatment that destroys B cells (such as **chemotherapy**)

- have had treatment that lowers their number of B cells (such as [rituximab](#)).

People with other [types of lymphoma](#) or who have undergone different treatments might also occasionally need immunoglobulin replacement therapy.

It is also sometimes used to treat other immune system problems, such as:

- [Autoimmune haemolytic anaemia](#) that hasn't responded to other treatments. Autoimmune haemolytic anaemia is a shortage of red blood cells caused by your immune system attacking your own cells. It can affect some people with [low-grade lymphoma](#) or some people who have had an [allogeneic stem cell transplant](#).
- [Immune thrombocytopenia](#) that hasn't responded to other treatments in people who are at risk of severe bleeding. Immune thrombocytopenia is a shortage of platelets caused by your immune system attacking your own cells. It affects around 1 in 10 people with [CLL](#).

How is immunoglobulin replacement therapy given?

To help your medical team decide whether or not you need immunoglobulin replacement therapy, you might have a 'vaccine challenge' test. This involves having a standard vaccination (usually the pneumococcal pneumonia jab) and then having a blood test a few weeks later to test how well your body has responded to it.

Most people have immunoglobulin replacement therapy as an outpatient. You might have it in one of two ways:

1. Through a drip into a vein (**intravenous** immunoglobulin, often called "IVIg"): If you have IVIg, you have it every 3 to 4 weeks. You have the first few doses slowly to reduce the risk of side effects, taking around 4 to 6 hours. Later doses take around 2 to 3 hours. You are advised not to drive yourself home after the first few sessions so make sure you make suitable transport arrangements.

2. As a slow injection under your skin (**subcutaneous** immunoglobulin, often called “SCIg”): If you have SCIg, you usually have it every week, although some people have smaller doses more frequently. The injection usually goes into your thigh, tummy or upper arm. You have SCIg through a syringe with a motor that gives the treatment at a steady rate. Depending on the dose you have, each treatment takes up to 2 hours. You might be taught how to give the treatment yourself at home.

Depending on your individual circumstances, you might need long-term treatment. While you are on immunoglobulin replacement therapy, you should have regular **blood tests** to measure your level of antibodies. This makes sure you get the most appropriate dose for you.

What side effects might I experience?

Most people do not have many side effects. Side effects are usually mild and temporary. They are more common during your first few treatments. Your medical team monitors you carefully for side effects and you might be given medicines to prevent them. Serious side effects are very rare.

The most common side effects of immunoglobulin replacement therapy are:

- flu-like symptoms, such as fever or shivers
- headache or feeling faint or dizzy
- feeling sick or being sick
- diarrhoea
- low blood pressure
- lower back pain or joint pain
- shortness of breath.

If you feel unwell during or shortly after having immunoglobulin replacement therapy, tell the nurse straightaway. They can slow down or stop the infusion, or give you treatment to help.

If you have your treatment as a slow injection under your skin, you might develop soreness, swelling, itching or a rash where you had the injection. This usually gets better within 24 hours.

A concern people might have about immunoglobulin replacement therapy is the possibility of an infection passing from the blood donors to the person receiving the treatment. The process of donor selection and the methods used to prepare the immunoglobulin product make this extremely unlikely.

References

The full list of references for this page is available on our website. Alternatively, email publications@lymphoma-action.org.uk or call 01296 619409 if you would like a copy.

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