

Thrombopoietin Receptor Agonists (TPO-RAs) for Immune Thrombocytopenia (ITP)

What is ITP?

Immune Thrombocytopenia (ITP) is a condition where the immune system attacks and destroys platelets, the blood cells that help stop bleeding. Low platelet counts can increase the risk of bruising and bleeding, which may be serious.

What are TPO-RAs?

Thrombopoietin receptor agonists (TPO-RAs) are medications used to help increase platelet counts in people with ITP. They work by signalling to your bone marrow to produce more platelets.

Common TPO-RA medications include:

- Eltrombopag – given as a daily oral tablet
- Romiplostim – given as a weekly injection
- Avatrombopag – given as an oral tablet multiple times per week or daily

Your doctor will recommend the most appropriate option based on your medical history, lifestyle, and preferences

Why are TPO-RAs used in ITP?

TPO-RAs may be used when:

- Steroids or IVIG do not work well enough
- ITP comes back after initial treatment
- You need a longer-term treatment option to maintain platelet counts

TPO-RAs can:

- Increase platelet counts
- Reduce bruising and bleeding
- Lower the need for steroids or other treatments
- Help many people maintain safe platelet counts over the long term

How are TPO-RAs taken?

Different TPO-RAs are taken in different ways:

- **Eltrombopag** is taken as a pill by mouth once daily on an empty stomach

Important: Eltrombopag Must Be taken on an Empty Stomach

Take Eltrombopag **at least 2 hours before** or **4 hours after**:

- Food or dairy products
- Antacids
- Multivitamins
- Calcium or iron supplements

Your body will not properly absorb the medication if it is not taken on an empty stomach.

- **Romiplostim** is given as a weekly injection under the skin, given either by your healthcare team or self-injected at home
- **Avatrombopag** is taken as a pill by mouth with food

Your healthcare team will decide which medication is most appropriate for you.

What to expect during treatment

Common side effects include:

- Headache
- Tiredness
- Nausea
- Joint or muscle aches
- Redness or soreness at the injection site (romiplostim only)

Less common but serious side effects include:

- Blood clots
- Liver problems
- Eye changes
- Bone marrow changes
- Sharp drop in platelet count if stopped suddenly

Before starting treatment, you will have blood tests to check your blood cells and liver function. People who can become pregnant may need a pregnancy test.

After treatment

Some people with ITP go into remission, meaning the ITP becomes inactive, and may be able to slowly reduce and stop their TPO-RA. However, this is not the case for everyone.

If you stop a TPO-RA too quickly, your platelet count can fall rapidly. This is called rebound thrombocytopenia. It does not mean the medicine failed, it means the dose needs to be tapered slowly under medical supervision. Your doctor may need to decrease your dose if your platelet count becomes too high. Never stop or reduce your dose without speaking to your doctor first.

Important considerations

- **Pregnancy and breastfeeding:** TPO-RAs are not recommended during pregnancy or breastfeeding. Tell your doctor if you are pregnant, planning pregnancy, or breastfeeding.
- **Other medications:** Some medications and supplements can interact with TPO-RAs. Tell your healthcare team about all prescription medications, over-the-counter medications, vitamins, and herbal supplements you take.
- **Dietary restrictions:** Eltrombopag must be taken on an empty stomach, at least 2 hours before or 4 hours after dairy products, antacids, multivitamins, and calcium or iron supplements or else your body will not absorb the medication.
- **Funding Support:** TPO-RAs are expensive and may not be covered by BC Fair PharmaCare. Your healthcare team will guide you through the process of securing funding through Patient Support Programs.

When to contact your healthcare provider

Get medical help right away if you have:

- Unusual pain, swelling, or redness in your arm or leg
- Sudden chest pain or shortness of breath
- Severe headache or vision changes
- Unusual bruising or bleeding
- Yellowing of the skin or eyes, or dark urine
- Numbness, tingling, or weakness
- Signs of infection: fever, chills, or persistent cough

Report any additional problems to your healthcare provider.

This information is meant to support, not replace, the advice provided by your doctor and healthcare team. It may not include all possible side effects or instructions. If you have questions or would like more information, please speak with your healthcare provider.