

# Biologics and Biosimilars for the Treatment of Inflammatory Arthritis



**What treatments  
are available for  
inflammatory arthritis?**



**What are biologics?**



**What are biosimilars?**



**Are biologics/biosimilars  
safe?**



**How do biologics/  
biosimilars work?**



**If I am considering  
biologics/biosimilars,  
what do I need to know?**



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## What is inflammatory arthritis?

Inflammatory arthritis is a group of conditions where the body's defense system begins to attack healthy tissues, particularly around the joints, causing *inflammation* – redness and swelling which causes pain and, when in the joints, can also cause stiffness. Left untreated, inflammation can lead to significant and often irreparable damage to the affected areas, resulting in loss of function and disability. Early treatment aimed at reducing inflammation is important to prevent this damage. There are over 100 forms of inflammatory arthritis and the causes are numerous, such as infections, trauma, and autoimmune reactions where the immune system attacks the body. The most common inflammatory forms of arthritis in adults are rheumatoid arthritis, ankylosing spondylitis and psoriatic arthritis. Inflammatory arthritis also affects children.

More information about inflammatory arthritis is available here: [inflammatory arthritis](#)

## What treatments are available for inflammatory arthritis?

There are many different types of inflammatory arthritis and many different types of treatments—both medical (such as drugs and surgery) and non-medical (such as physical activity). For inflammatory arthritis, traditional medical treatments include disease-modifying anti-rheumatic drugs (DMARDs) and non-steroidal anti-inflammatory drugs (NSAIDs), but in recent years, advanced medications called **biologics** have been introduced that offer powerful treatment options for patients when other treatments have failed to work.

## What are biologics?

Biologics are a class of drugs that can be prescribed instead of (or in addition to) more common medical treatments.

Biologics are large, complex biological compounds that are made by living cells—bacterial or yeast cells or cells obtained from plants or animals—rather than being manufactured chemically like most other drugs. For people coping with inflammatory arthritis, biologics work by calming the immune system and thereby reducing pain, stiffness and other symptoms.

Biological products provide additional options for the treatment of arthritis.

More information about medication for arthritis, including biologics is available here: [medication guide](#)

## What are biosimilars?

**Biosimilars are biologics** that are produced by manufacturers after the patent on an original biologic expires. Because biologics are very complex molecules produced using living cells it is not possible to duplicate them exactly. For this reason, different versions of the same biologic are called **biosimilars**, because they are **very similar** (but not identical) to the original biologic. More information about biosimilars is available here: [Joint Health](#)

## Are biosimilars the same as generic drugs?

A **generic** drug is a chemically manufactured drug that is **an exact copy** of the original drug. This is possible because the active ingredients in common medications are easy to duplicate. For example, acetaminophen in a drug store brand of pain reliever is exactly the same as the acetaminophen found in the brand name product.

In contrast, **biosimilars** are **highly similar** but not identical to the original biologic. This is because of their large size and complicated structure, and the specialized biological steps needed to make them.

## Are biologics/biosimilars safe?

Health Canada is responsible for making sure that all new drugs, including biologics and biosimilars, are safe, effective and of high quality.

Health Canada also makes sure that approved biosimilars work the same as the original biologic and their side effects are similar.

## How do biologics/biosimilars work?

Biologics are a class of drugs designed to treat various conditions, including inflammatory autoimmune conditions. Biologics actually work to reduce the inflammation and can help to prevent further damage to the joints.

In some people with arthritis, high levels of certain proteins may be present in the blood and joints leading to inflammation (and therefore pain, swelling and stiffness). Biologics and biosimilars work to calm the body's overactive immune system by blocking these proteins and their ability to cause inflammation.

A great video on inflammatory arthritis and different treatment options, including biosimilars is available here: [Inflammatory Arthritis Medications Simplified](#)

Your doctor may suggest that your biologic be taken in combination with other drugs to increase the chance of successful treatment of your arthritis.

## If I am considering biologics/biosimilars, what do I need to know?

### ***What are my options?***

There are different biologics that could be offered to you to treat your inflammatory arthritis. One could be more appropriate for you or your type of arthritis. Make sure you discuss with your doctor the pros and cons of the different treatments available.

### ***How is the drug given?***

Generally biologics need to be either injected or given by infusion (intravenous or IV). You can inject the biologic yourself, but infusions must be done in a clinic, a process that may take several hours.

## ***Will biologics work for me?***

As with all treatments, different people react differently. Some people find that biologics act very quickly (within days) to reduce their symptoms while others find that it takes longer (weeks or even months). Some people find that biologics help to reduce their symptoms while others find that they are now nearly symptom-free. For some people, biologics may not work at all.

When on biologics, you should reach out to your doctor:

- if you have a fever;
- if you have an infection;
- if you need to take an antibiotic;
- if you are considering surgery; or
- if you want to get pregnant.

## ***How much do they cost?***

Biologics are very expensive drugs—whether you are paying for them yourself, or through a provincial or private drug plan. Biosimilars are usually less expensive than the original biologic.

## ***What about fighting infections?***

Biologics are designed to calm the immune system, so when you are on them, they can make it harder for your body to fight infections. You will need to be very careful to prevent infections when you are on a biologic. Also, before you start taking a biologic, you should make sure that your vaccinations are up to date and that you have seen your dentist to be sure you have no cavities or gum disease.

If you have to take antibiotics for an infection, you must temporarily stop taking your biologic until the infection is resolved. Your doctor will let you know when to resume your biologic treatment.

## ***Can I travel while taking a biologic?***

If you are travelling on a plane, you may need a “[travel letter](#)” from your doctor to confirm that you need to take this medication (and any syringes) with you. In addition, you may need to make arrangements to have your biologic properly stored and administered at your destination.

## ***Are patient support programs available?***

When you are prescribed a biologic, the manufacturer may offer a support program to help with cost and other issues related to taking the medication. This support may include a patient information line with tips such as how to dispose of used syringes, and suggestions for how to get help to pay for the biologic.

## ***What if I have to change my biologic/biosimilar?***

There are many reasons why you might talk about a medication change with your doctor. A medication can work well for years and reduce your symptoms, but sometimes it needs to be changed. This can be because you had to stop the medication for a health reason and it does not work after it is restarted, or because, for no apparent reason, a medication just stops working for you. If you are taking a biologic and

your disease is stable, you may consider switching to a biosimilar, but this should be done only after discussion with your doctor based on what is right for you, your treatment and your overall needs.

## How do I talk about different treatment options with my doctor?

There are many types of arthritis and many different treatments: it can feel a little overwhelming. But it is important that you are involved in the choice of your treatments, and to be involved you need to know as much as possible about your condition and your treatment options.

It should not be difficult to discuss your concerns and questions with your doctor, but doctors are busy and may not always have the time to explain things thoroughly. You may also find it difficult to understand the medical terms that they use. To make the most of your time with your doctor, try to do some reading about your condition and treatment options before your appointment.

Write down any questions that you have before your doctor's appointment so you remember what to ask. And write down the doctor's answers so you can look at them again. Better yet, consider bringing someone with you to your appointment to take notes for you.

Here are some things that you should consider and discuss with your doctor:

- What might you expect from a biologic treatment?
- Does the treatment work with your lifestyle? For example, will it be hard for you to get time off work to go to an infusion clinic regularly? Are you afraid of giving yourself a needle?
- What are the side effects of this treatment?
- Does this treatment affect other medications you are taking?
- What do you need to think about if you are travelling? Do you need a special "travel letter"? How do you keep your biologics safe while you travel?
- Are there any special considerations if you have other health issues, or if you are pregnant or want to become pregnant?
- Are there special considerations if you are self-employed? Is there someone who can help you get reimbursed for the cost of your biologics?
- Does the biologic your doctor has recommended have a patient support program? What services does the support program offer? Are there any other supports available to you for this treatment?

If you are considering switching from a biologic to its biosimilar, here are some questions you should discuss with your doctor:

- If your biosimilar is delivered by infusion, will you need to go to a different infusion centre from where you go now?
- If your biosimilar is delivered by injection, will the device work the same way? Will you need additional training?
- Is the patient support program different from the one you are currently on? If so, how?
- With your personal background, are there any reasons why you should not change to the biosimilar?

Work with your doctor to make informed and shared decisions about your treatment options, including biologics/biosimilars.

More information about how to speak with your doctor is available here: [You and Your Healthcare Provider: A Guide to Effective Conversations](#)

## Practical things you should do when on biologics/biosimilars:

- Take your medications as directed by your doctor.
- Do blood work as requested by your doctor.
- Discuss any vaccines you might need with your doctor.
- Consult your doctor about any planned surgery.
- Make an appointment with your doctor before the renewal date of your medication.
- Carry a list of all your medications at all times.
- Carry all of your doctors' names and contact information (general practitioner and specialist) with you at all times.
- Fill the medical information emergency file on your mobile phone.
- Store your medications as directed. Keep your medications out of reach of children.
- If required, ensure you have a proper travel letter when you are travelling with your medication.

## Where can I get more information about inflammatory arthritis symptoms and treatments?

Arthritis is a complex condition, and there are many types, each with its own symptoms and possible medical and non-medical treatments. More information is available here:

- [Arthritis Society](#)
- [Health Canada](#)
- [RheumInfo](#)

## What does the Arthritis Society do?

The Arthritis Society's vision is to live in a world where people can be free from the devastating effects that arthritis can have on lives. To that end, we invest in cutting-edge research, proactive advocacy and innovative solutions that will deliver better health outcomes and an improved quality of life for people affected by arthritis.

The Arthritis Society provides information and education to people coping with arthritis so that they, together with their doctors, can make the most appropriate and informed choices for their needs.