

Biologic Medications

What Are Biologic Medications?

Biologic medications are also called *biologics*. Biologics are a new class of medication for people with rheumatic diseases. Biologics work best for rheumatic diseases that involve inflammation. In these diseases, there is painful and destructive inflammation in your joints.

You get joint inflammation because the immune system is not working correctly. By mistake, it treats parts of your body (eg, your joints), as if they were harmful invaders like a viruses. When this happens, you have an autoimmune disease. Biologics are medications made to fight autoimmune diseases.

How Do Biologics Work?

Biologics try to fix parts of your immune system. The immune system is very complicated. It is made of a very large family of chemicals and cells. In a healthy immune system, all of these work together perfectly. In autoimmune diseases, some of them do not do their jobs as they should.

Biologics try to fix the mistakes made by these chemicals and cells. Different biologics target and fix different chemicals and cells:

Parts that Need to be Fixed	Type of Medication that Helps	Names of Medications
Tumor necrosis factor (TNF)	TNF inhibitors	Remicade®, Enbrel®, Humira®, Simponi®, Cimzia®
T cells	T cell inhibitors	Orencia®
B cells	B cell inhibitors	Rituxan®
Interleukin 1 (IL-1)	IL-1 inhibitors	Kineret®
Interleukin 6 (IL-6)	IL-6 inhibitors	Actemra®

Your doctor will prescribe the medication that is best for you. Which one is best depends on 1) the type of rheumatic disease you have, 2) other health problems you may have, 3) the health issues that run in your family, and 4) how well your body handles the medication.

How Do I Take Biologic Medications?

You take biologics by either injection under the skin (SQ) or by an intravenous (IV) drip. You may need an SQ injection every day. You may need an IV infusion once every six months. After starting on one of these medications, you also may need to take other arthritis medications. Together, these medications can make you feel better. They also can keep your joints from being damaged by inflammation.

What Are the Side Effects?

Like all medications, biologics have side effects. If a medication helps you, and you have a very small risk of getting serious side effects, you may want to take it. If a medicine helps you only a little, and you have a lot of side effects, you may want to switch to another one. You may have to try several medications to find the one that works best for you. *If you want to change or stop your medication, you always need to talk to your doctor!* Here are some side effects to think about:

Infections

Biologics slow down parts of the immune system. Therefore, they may make you more prone to infections. Common infections seen are colds, sore throats, and sinus infections. You need to talk to your doctor right away, even when you do not feel very sick.

People taking biologics can also get more serious infections. The risk is very small in people with a rheumatic disease only. People who also have diabetes, COPD, asthma, or heart disease have a greater risk. Your risk also goes up as you become older.

What You Can Do

- ✓ Stay away from people who have infections.
- ✓ Get screened for tuberculosis (TB) and hepatitis.
- ✓ Keep your immunizations (flu, pneumonia, and/or shingles shots) up to date.
- ✓ Tell your doctor *right away*, if you have (or think you have) an infection.
You need to get medication *before* you get really sick!

Tuberculosis (TB)

The risk of getting TB is very small for people in the United States. Your risk increases, when you travel to countries where TB is more common.

What You Can Do

- ✓ Before traveling abroad, talk to your doctor.
- ✓ For TB risks in other countries, visit *Traveler's Health* (<http://wwwnc.cdc.gov/travel/>).

Fungal Infections

If you live in New York, you do not need to be concerned about this. But talk to your doctor, if you will travel to the Ohio River Valley, the desert southwest, or California.

What You Can Do

- ✓ If you travel to these areas, know how to contact your doctor.
- ✓ Call your doctor right away, if you develop a fever, breathing problems, or feel like you are getting sick.

Hepatitis

Patients with hepatitis B cannot take biologics. Patients with hepatitis C usually can take biologics.

Some types of infections – a cold, the flu, bladder infections for example - affect people who do not take biologics and do not have autoimmune diseases. It is important to remember that, because developing a common cold or the flu does not mean the biologic medication caused it. So, sometimes your doctor may advise you to resume a biologic after an infection, and sometimes depending on the type and severity of the infection, your doctor may advise you to stop the medication.

Cancer

Some researchers think that biologics increase the risk of getting cancer. Others think that biologics do not increase this risk. More research needs to be done to answer this question.

What You Can Do

- ✓ Make sure that you are up-to-date with all your preventive cancer screenings.

Other Risks

Biologics can cause skin inflammation. This can happen at the place of your skin, where you get the biologics injection or IV. Biologics can also cause allergic reactions (eg, rash, itching, or swelling).

In addition, biologics can damage your liver, make you anemic, or cause nerve problems. These side effects are extremely rare. But it is important for you to know about them.

What You Can Do

- ✓ Tell your doctor about any unusual health problems you may develop.
Better be safe than sorry!

Who Should Take Biologics?

The most common medications taken for rheumatic diseases are DMARDs (disease-modifying anti-rheumatic drugs). But some people do not get better with these medications. They still have a lot of inflammation, pain, and continued joint damage. These people may be helped by biologics.

Who Should Not Take Biologics?

People who already have an active infection should not take biologics. They will have to wait until the infection is completely cured. People with a high risk for infection may be able to take biologics. But they need to get checked more often by their doctor.

If you have some types of heart problems, you may not be able to take biologics. Patients who have more serious forms of congestive heart failure may not be able to take biologics. Other patients, whose heart problems are under good control, may be able to take biologics. It is important to make sure your rheumatologist and the doctors taking care of you for your heart know all about your health problems. You also should not take TNF inhibitors, if you have had multiple sclerosis (MS). Women who are

pregnant or breast feeding should not take biologics. If you have had cancer, ask your doctor whether a biologic medication is safe for you.

Further Information

The biologics are a relatively new class of medications. They have been available for about 10 years or less. Rheumatologists are very familiar with the biologics. Family physicians and other physicians who do not prescribe biologics may have heard of them, but are often not familiar with the medications and their benefits and risks. When taking a biologic, or any medication for arthritis, it is important that your doctors communicate particularly when you become ill, or the question of a side effect comes up.

Find out more about each one of the biologics online at

Actemra® www.actemra.com

Cimzia® www.cimzia.com

Enbrel® www.enbrel.com

Humira® www.humira.com

Kineret® www.kineretrx.com

Orencia® www.orencia.com

Remicade® www.remicade.com

Rituxan® www.rituxan.com

Simponi® www.simponi.com