



Anakinra (*Kineret*)

Anakinra (*Kineret*) is used to treat rheumatoid arthritis and other autoimmune diseases. It is a “biologic” medicine. This means that it is man-made and closely related to a protein that occurs naturally in the body.

Like other biologic drugs, abatacept was created with genetic-engineering techniques. It helps decrease inflammation in arthritis.

Fast Facts

- Anakinra may be used to treat rheumatoid arthritis if standard treatments do not work well.
- Anakinra is sometimes used in less common diseases such as Adult-Onset Still’s Disease.
- Anakinra increases the risk of infections. Patients taking anakinra should notify their doctors immediately if they develop fevers or other infection symptoms.

Uses

Anakinra may be used to treat rheumatoid arthritis if either the standard medications do not work well or if they cannot be used. While not an FDA-approved indication, anakinra is sometimes used for Adult-Onset Still’s Disease, gout and [pseudogout](#), [juvenile arthritis](#), [ankylosing spondylitis](#), uveitis, and auto-inflammatory syndromes.

How it works

Inflammation causes fevers. In joints, inflammation causes pain, stiffness, swelling and damage to bone and cartilage. Inflammation occurs through many pathways. In one pathway, a protein called IL-1b attaches itself to

a cell. This cell then makes other proteins that cause inflammation. A different protein, called IL-1Ra, can block this interaction and prevent inflammation.

Anakinra is a man-made form of the IL-1Ra protein. Anakinra blocks the interaction between IL-1b and the cell to stop inflammation that occurs through that pathway. Other pathways can cause inflammation, though, so anakinra may not relieve all symptoms.

Dosing

The standard dose is 100 mg per day injected under the skin. This dose was used in clinical trials of rheumatoid arthritis. In children, and in other diseases, the dose can be adjusted for patient weight. Anakinra is effective by itself. In the case of rheumatoid arthritis, anakinra can be taken with methotrexate.

Anakinra must be stored in a refrigerator and warmed to room temperature before use. A nurse or physician can teach patients how to give themselves the injections. It often helps to bring a spouse or friend along to learn how to do the injections. Patient education information and videos are available. Anakinra can be injected in the front of the thigh or abdomen. Injection sites should be rotated so that the same site is not used repeatedly.

Time to effect

Anakinra relieved symptoms in 4-6 weeks in the clinical trials for rheumatoid arthritis. In Adult-Onset Still's Disease, gout and other auto-inflammatory disorders, anakinra may begin to relieve symptoms within hours.

Side effects

The most common side effects are injection site reactions such as redness, itching, rash, and pain. Bruising or bleeding also can occur, but it is rare. These effects usually stop after 1-2 weeks. Infections, headaches and low white blood cell counts also can occur, but these are very rare.

Points to remember

- Biologics such as anakinra are generally effective and well tolerated in most patients. However, they are much more expensive than traditional arthritis drugs such as methotrexate.
- Biologics also increase the risk of infections. Their safety can be increased by periodic blood tests and monitoring for infection by a doctor.
- Patients taking anakinra should not receive live vaccines, such as certain influenza vaccines.

Drug interactions

Anakinra has no known interactions with other medications. Anakinra should not be used at the same time as other biologics [e.g., etanercept (*Enbrel*), adalimumab (*Humira*), infliximab (*Remicade*), certolizumab (*Cimzia*), golimumab (*Simponi*), [abatacept](#) (*Orencia*), or [tocilizumab](#) (*Actemra*)]. This is because all biologics increase the risk for infection.

Information to discuss with other healthcare providers

Anakinra blocks one of the pathways that causes inflammation. This pathway also is used to fight infections. You should tell your doctor if you aren't feeling well, since you may have an infection. Your doctor can stop anakinra and start antibiotics, if needed.

To find a rheumatologist

[View a listing of rheumatologists in your area](#)

Learn more information about [rheumatologists](#) and [rheumatology health professionals](#)

For additional Information

The American College of Rheumatology has compiled this list to give you a starting point for your own research. The ACR does not endorse or maintain these Web sites, and is not responsible for any information or claims provided on them. It is always best to talk with your rheumatologist for more information and before making any decisions about your care.

National Institutes of Health

www.nlm.nih.gov/medlineplus/druginfo/meds/a602001.html

Biovitrum (manufacturer)

www.kineretrx.com/patient

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Written by D. Patel, MD, PhD, and reviewed by the American College of Rheumatology Communications and Marketing Committee.

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