



Injectable drugs referred to as biologic DMARDs (Disease-Modifying Antirheumatic Drugs)—or simply, biologics—are used to treat rheumatoid arthritis, a chronic condition in which the immune system attacks the lining of the joints, causing swelling, stiffness and pain. The biologics do not cure rheumatoid arthritis, but they do alleviate symptoms and may help prevent further joint damage.

To help you and your doctor choose the right biologic if you need one, *Consumer Reports* has evaluated the drugs in this category based on their effectiveness, safety, and cost. This 2-page brief is a summary of a 17-page report you can access on the Internet at ConsumerReportsHealth.org/BestBuyDrugs. You can also learn about other drugs we've analyzed on this free Web site.

DO YOU NEED A BIOLOGIC?

The biologics can cause serious side effects and should not be used until after you have tried other therapies. In some cases, a biologic may not be appropriate. If you have been newly diagnosed with rheumatoid arthritis, studies show that other, less costly and safer medications work just as well as biologics, so you should try these first. These include ibuprofen (Advil, Motrin, and generics, naproxen (Aleve, Naprosyn, and generics), corticosteroids such as prednisone, and nonbiologic DMARDs, including hydroxychloroquine (Plaquenil), sulfasalazine (Azulfidine), minocycline (Dynacin, Minocin), and methotrexate (Rheumatrex). You should also follow an exercise program because studies show such programs improve function in people with rheumatoid arthritis.

If those therapies fail to provide you with enough symptom relief, then it may be time to try a biologic. Between 40 to 70 percent of people who have not benefitted from other rheumatoid arthritis medications experience some measure of relief from biologics.

Our Recommendations

Nine different biologics are available to treat the symptoms of rheumatoid arthritis. None are available as generics, so they are all very expensive. Taking into account the evidence for effectiveness and safety, as well as cost, if you need a biologic drug to treat your rheumatoid arthritis, we have chosen the following as *Consumer Reports Health Best Buy Drugs*:

- Adalimumab (Humira)
- Etanercept (Enbrel)
- Abatacept (Orencia)

Studies show that these three medications are as effective—or better than—the other biologics for relieving rheumatoid arthritis symptoms. They also have better side effect profiles than some of the other biologics.

The side effects profile is a very important factor in choosing a biologic. The vast majority of people (up to 97 percent) treated with these medications experience at least one side effect, which can range from mild to serious to life-threatening. The potentially life threatening side effects include infections such as tuberculosis, cancer, serious damage of blood cells, and allergic reactions and convulsion following the infusion of a biologic.

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Your doctor should *not* prescribe a biologic if:

- Your rheumatoid arthritis is not active (i.e., your arthritis is in remission)
- You have not tried standard treatments (i.e. NSAIDs or conventional DMARDs) first
- You are pregnant or breastfeeding
- You have an infection
- You have previously had severe reactions to biologics

Your doctor may decide *not* to prescribe a biologic if:

- You have had tuberculosis in the past
- You have had other repeated infections
- You have had cancer
- You have or had a serious heart condition
- You have lung fibrosis

Effectiveness and Tolerability of Biologics








Generic Name	Brand Name	Response to Treatment ¹	Discontinuation because of side effects ²	Comments / Special Notes
Abatacept	Orencia	26% - 40%	3% - 7%	Low rate of infusion reactions
Adalimumab	Humira	24% - 97%	5% - 9%	None
Anakinra	Kineret	19% - 50%	Not reported	May be less effective than some other biologics Highest rate of injection site reactions
Certolizumab	Cimzia	24% - 41%	1% - 7%	None
Etanercept	Enbrel	47% - 100%	3% - 57%	None
Infliximab	Remicade	27% - 75%	2% - 20%	Higher rate of infections than Orencia and Enbrel
Rituximab	Rituxan	18% - 49%	1% - 6%	Highest rate of infusion reactions ³

1. Response is defined as a 50 percent or greater improvement of rheumatoid arthritis symptoms.

2. Average discontinuation rates due to adverse events seen in studies.

3. 77 percent of people treated with rituximab had a reaction after the first infusion.

Biologics-Cost Comparison

Generic Name and Dose	Brand Name	Frequency of Use	Average Monthly Cost ¹
 Abatacept 10 mg/kg ²	Orencia	Every 4 weeks	\$1,860
 Adalimumab 40 mg, injectable kit	Humira	Every other week	\$2,022
 Adalimumab 40 mg, pen injector	Humira	Every other week	\$2,034
Anakinra 100 mg, disposable syringe	Kineret	Daily	\$1,205
Certolizumab 400 mg, injectable kit	Cimzia	Once a month	\$915
Certolizumab 400 mg, prefilled syringe	Cimzia	Once a month	\$933
 Etanercept 25 mg, prefilled syringe	Enbrel	Twice a week	\$2,648
 Etanercept 50 mg, prefilled syringe	Enbrel	Once a week	\$2,784
 Etanercept 25 mg, injectable kit	Enbrel	Twice a week	\$2,113
 Etanercept 50 mg, pen injector	Enbrel	Once a week	\$2,126
Infliximab 5 mg/kg ²	Remicade	Every 8 weeks ³	\$2,034 ⁴
Rituximab 1,000 mg	Rituxan	Every 24 weeks ³	\$1,122 ⁴

1. Prices are derived from national average retail costs for April 2010, rounded to the nearest dollar. Information is derived by *Consumer Reports Health Best Buy Drugs* from data provided by Wolters Kluwer Pharma Solutions. Wolters Kluwer is not involved in our analysis or recommendations.

2. Calculated price is based on an assumed body weight of 75 kg (165 pounds).

3. Refers to an average interval; number of infusions required varies among people.

4. A typical course requires closer intervals in the beginning. Average costs during the first year of treatment, therefore, may be substantially higher.

NOTE: The information contained in the *Consumer Reports Health Best Buy Drugs™* reports is for general informational purposes and is not intended to replace consultation with a physician or other health care professional. Consumers Union is not liable for any loss or injury related to your use of the reports. The reports are intended solely for individual, non-commercial use and may not be used in advertising, promotion, or for any other commercial purpose.