



## National MS Society Information Sourcebook

[www.nationalmssociety.org/sourcebook](http://www.nationalmssociety.org/sourcebook)

### **Glatiramer Acetate (Copaxone®) (formerly called Copolymer-1 or COP-1)**

Glatiramer acetate is a synthetic compound made of four amino acids (the building blocks of proteins) that are found in myelin. This drug is thought to stimulate T cells in the body's immune system to change from harmful, *pro-inflammatory* agents to beneficial, *anti-inflammatory* agents that work to reduce inflammation at lesion sites. Glatiramer acetate has been shown in clinical trials to reduce the number and severity of exacerbations (also called attacks, relapses, or flares) and reduce the number of new, gadolinium-enhancing brain lesions on MRI. It was approved by the FDA in 1996 to reduce relapses in relapsing-remitting multiple sclerosis. This medication is not an interferon.

#### **Effectiveness and Safety Tested in Many Clinical Trials**

In 1991, a placebo-controlled trial of glatiramer acetate enrolled 250 patients at several medical centers. The patients all had relapsing-remitting MS, were 18 to 45 years of age, and had EDSS ratings of less than or equal to 5.0. Glatiramer acetate was administered daily by injection under the skin for two years. At the end of two years, there was a 29% reduction in the relapse rate for the treated patients compared to controls. (The annual relapse rate was 0.59 for those receiving glatiramer acetate; 0.84 for those taking the placebo.). Subsequent studies have confirmed the efficacy and safety of glatiramer acetate in people with relapsing-remitting MS, including 12-year follow-up data published in 2005.

#### **Administration**

This drug is injected subcutaneously (under the skin) every day. Patients or family members who first receive proper training in aseptic injection techniques can perform the injections without medical supervision.

#### **Side Effects**

The drug is well tolerated and does not cause the flu-like symptoms or increase in depression associated with interferon drugs. The most common side effects are injection site reactions, pain upon injection, and a post injection reaction involving shortness of breath, flushing, palpitations, anxiety, and chest pain. The reaction resolves itself within 15 to 20 minutes and does not appear to have any long-term consequences. However, it can be very frightening.

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## See also...

### Sourcebook

- Early Intervention (Disease Management Consensus Statement—Summary)
- Expanded Disability Status Scale (EDSS)
- Interferons

### Society Web Resources

- Treatments  
[www.nationalmssociety.org/Treatments](http://www.nationalmssociety.org/Treatments)
- Medications Used in MS  
[www.nationalmssociety.org/Meds](http://www.nationalmssociety.org/Meds)
- Information in Spanish  
[www.nationalmssociety.org/Spanish](http://www.nationalmssociety.org/Spanish)

### Expert Opinion Papers for Healthcare Professionals

- Disease Management Consensus Statement
- Changing Therapies in Relapsing Multiple Sclerosis: Considerations and Recommendations  
[www.nationalmssociety.org/ExpertOpinionPapers](http://www.nationalmssociety.org/ExpertOpinionPapers)

### Books

Holland NJ, Halper J (eds.). *Multiple Sclerosis: A Self-Care Guide to Wellness* (2<sup>nd</sup> ed.). New York: Demos Medical Publishing, 2005.  
—Ch. 3 What Treatment is Available?

Kalb R. (ed.) *Multiple Sclerosis: The Questions You Have; The Answers You Need* (3<sup>rd</sup> ed.). New York: Demos Medical Publishing, 2004.  
—Ch. 3 Treatment

Schapiro R. *Managing the Symptoms of Multiple Sclerosis* (4<sup>th</sup> ed.). New York: Demos Medical Publishing, 2003.

The National Multiple Sclerosis Society is proud to be a source of information about multiple sclerosis. Our comments are based on professional advice, published experience, and expert opinion, but do not represent individual therapeutic recommendations or prescription. For specific information and advice, consult your personal physician.

To contact your chapter, call **1-800-FIGHT-MS** (1-800-344-4867) or visit the National MS Society web site: [www.nationalmssociety.org](http://www.nationalmssociety.org).