

Medication Guide
Rebif[®] (Re-bif)
Interferon beta-1a
(in-ter-feer-on beta-one-â)

Please read this leaflet carefully before you start to use Rebif[®] and each time your prescription is refilled since there may be new information. The information in this medication guide does not take the place of regularly talking with your doctor or healthcare professional.

What is the most important information I should know about Rebif[®]?

Rebif[®] will not cure multiple sclerosis (MS) but it has been shown to decrease the number of flare-ups and slow the occurrence of some of the physical disability that is common in people with MS. Rebif[®] can cause serious side effects, so before you start taking Rebif[®], you should talk with your doctor about the possible benefits of Rebif[®] and its possible side effects to decide if Rebif[®] is right for you. Potential serious side effects include:

- **Depression.** Some patients treated with interferons, including Rebif[®], have become seriously depressed (feeling sad). Some patients have had thoughts about or have attempted to kill themselves. Depression (a sinking of spirits or sadness) is not uncommon in people with multiple sclerosis. However, if you are feeling noticeably sadder or helpless, or feel like hurting yourself or others you should tell a family member or friend right away and call your doctor as soon as possible. Your doctor may ask that you stop using Rebif[®]. You should also tell your doctor if you have ever had any mental illness, including depression, and if you take any medications for depression.
- **Liver problems.** Your liver may be affected by taking Rebif[®], so you may be asked to have regular blood tests to make sure that your liver is working properly. If your skin or the whites of your eyes become yellow or if you are bruising easily you should call your doctor right away.
- **Risk to pregnancy.** If you become pregnant while taking Rebif[®] you should stop using Rebif[®] immediately and call your doctor. Rebif[®] may cause you to lose your baby (miscarry) or may cause harm to your unborn child. You and your doctor will need to decide whether the potential benefit of taking Rebif[®] is greater than the risks are to your unborn child.
- **Allergic reactions.** Some patients taking Rebif[®] have had severe allergic reactions leading to difficulty breathing, and loss of consciousness. Allergic reactions can happen after your first dose or may not happen until after you have taken Rebif[®] many times. Less severe allergic reactions such as itching, flushing or skin bumps can also happen at any time. If you think you are having an allergic reaction, stop using Rebif[®] immediately and call your doctor.
- **Injection site problems.** Rebif[®] may cause redness, pain or swelling at the place where an injection was given. A few patients have developed skin infections or areas of severe skin damage (necrosis). If one of your injection sites becomes swollen and painful or the area looks infected and it doesn't heal within a few days, you should call your doctor.

What is Rebif[®]?

Rebif[®] is a type of protein called beta interferon that occurs naturally in the body. It is used to treat relapsing forms of multiple sclerosis. It will not cure your MS but may decrease the number of flare-ups of the disease and slow the occurrence of some of the physical disability that is common in people with MS. MS is a life-long disease that affects your nervous system by destroying the protective covering (myelin) that surrounds your nerve fibers. The way Rebif[®] works in MS is not known.

Who should not take Rebif[®]?

Do not take Rebif if you:

- have had an allergic reaction such as difficulty breathing, flushing or hives to another interferon beta or to human albumin.

If you have any of the following conditions or serious medical problems, you should tell your doctor *before* taking Rebif:

- Depression (a sinking feeling or sadness), anxiety (feeling uneasy or fearful for no reason), or trouble sleeping
- Liver diseases
- Problems with your thyroid gland
- Blood problems such as bleeding or bruising easily and anemia (low red blood cells) or low white blood cells
- Epilepsy
- Are planning to become pregnant

You should tell your doctor if you are taking any other prescription or non-prescription medicines. This includes any vitamin or mineral supplements, or herbal products.

How should I take Rebif[®]?

Rebif[®] is given by injection under the skin (subcutaneous injection) on the same three days a week (for example, Monday, Wednesday and Friday). Your injections should be at least 48 hours apart so it is best to take them the same time each day. Your doctor will tell you what dose of Rebif to use, and may change the dose based on how your body responds. You should not change the dose without talking with your doctor.

If you miss a dose, you should take your next dose as soon as you remember or are able to take it, then skip the following day. **Do not take Rebif[®] on two consecutive days.** You should return to your regular schedule the following week. If you accidentally take more than your prescribed dose, or take it on two consecutive days, call your doctor right away.

You should always follow your doctor's instructions and advice about how to take this medication. If your doctor feels that you, or a family member or friend may give you the injections then you and/or the other person should be trained by your doctor or healthcare provider in how to give an injection. Do not try to

give yourself (or have another person give you) injections at home until you (or both of you) understand and are comfortable with how to prepare your dose and give the injections.

Always use a new, unopened, pre-filled syringe of Rebif[®] for each injection. Never reuse syringes.

It is important that you change your injection site each time Rebif[®] is injected. This will lessen the chance of your having a serious skin reaction at the spot where you inject Rebif[®]. You should always avoid injecting Rebif[®] into an area of skin that is sore, reddened, infected or otherwise damaged.

At the end of this leaflet there are detailed instructions on how to prepare and give an injection of Rebif[®]. You should become familiar with these instructions and follow your doctor's orders before injecting Rebif[®].

What should I avoid while taking Rebif[®]?

- **Pregnancy.** You should avoid becoming pregnant while taking Rebif[®] until you have talked with your doctor. Rebif[®] can cause you to lose your baby (miscarry).
- **Breast feeding.** You should talk to your doctor if you are breast feeding an infant. It is not known if the interferon in Rebif[®] can be passed to an infant in mother's milk, and it is not known whether the drug could harm the infant if it is passed to an infant.

What are the possible side effects of Rebif[®]?

- **Flu-like symptoms.** Most patients have flu-like symptoms (fever, chills, sweating, muscle aches and tiredness). For many patients, these symptoms will lessen or go away over time. You should talk to your doctor about whether you should take an over the counter medication for pain or fever reduction before or after taking your dose of Rebif[®].
- **Skin reactions.** Soreness, redness, pain, bruising or swelling may occur at the place of injection. (see: *"What is the most important information I should know about Rebif[®]?"*)
- **Depression and anxiety.** Some patients taking interferons have become very depressed and or anxious. There have been patients taking interferons who have had thoughts about killing themselves. If you feel sad or hopeless you should tell a friend or family member right away and call your doctor immediately. (see: *"What is the most important information I should know about Rebif[®]?"*)
- **Liver problems.** Your liver function may be affected. Symptoms of changes in your liver include yellowing of the skin and whites of the eyes and easy bruising. (see: *"What is the most important information I should know about Rebif[®]?"*)
- **Blood problems.** You may have a drop in the levels of infection-fighting blood cells, red blood cells or cells that help to form blood clots. If the drop in levels are severe, they can lessen your ability to fight infections, make you feel tired or sluggish or cause you to bruise or bleed easily.

- **Thyroid problems:** Your thyroid function may change. Symptoms of changes in the function of your thyroid include feeling cold or hot all the time, change in your weight (gain or loss) without a change in your diet or amount of exercise you are getting.
- **Allergic reactions:** Some patients have had hives, rash, skin bumps or itching while they were taking Rebif®. Other patients have had more serious allergic reactions such as difficulty breathing, or feeling light-headed. You should tell your doctor if you think you are having an allergic reaction. (see: “*What is the most important information I should know about Rebif®?*”)

Whether you experience any of these side effects or not, you and your doctor should periodically talk about your general health. Your doctor may want to monitor you more closely and ask you to have blood tests done more frequently.

Storage Conditions

Rebif® is packaged in pre-filled syringes with needles already attached to the syringe.

Rebif® should be stored refrigerated between 2-8°C (36-46°F). DO NOT FREEZE. If a refrigerator is temporarily not available, such as while you are traveling, Rebif® should be kept cool (i.e., below 25° C/77 ° F) and away from heat and light.

General Information About Prescription Medicines

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. This medication has been prescribed for your particular medical condition. Do not use it for another condition or give this drug to anyone else. If you have any questions you should speak with your doctor or health care professional. You may also ask your doctor or pharmacist for a copy of the information provided to them with the product.

Keep this and all drugs out of the reach of children.

Instructions for Preparing and Giving Yourself an Injection of Rebif®

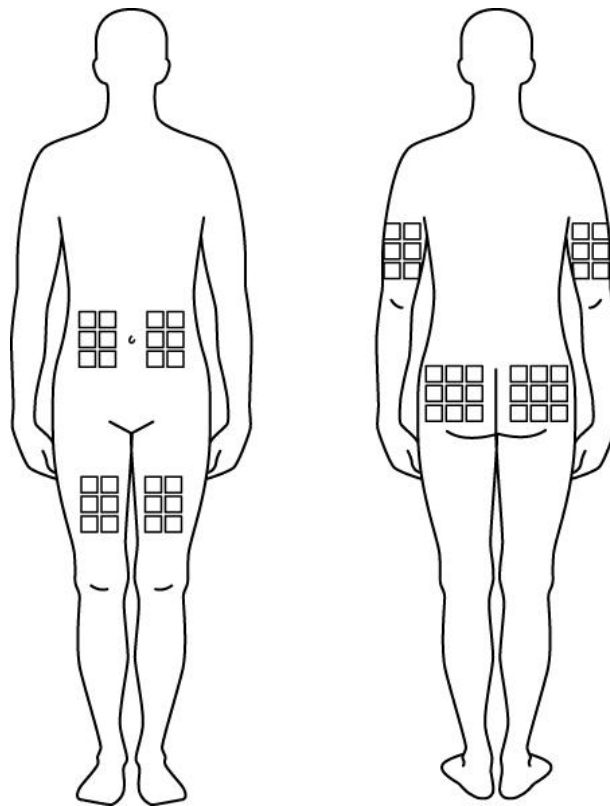
Before you begin, gather all of the supplies listed below:

- Rebif® pre-filled syringe with 27 gauge needle. You may wish to remove your syringe from the refrigerator 30 minutes prior to use and let it adjust to room temperature so the liquid is not cold. Do not heat or microwave a syringe.
- Alcohol swabs (wipes) or cotton balls and rubbing alcohol
- Small adhesive bandage strip (if desired)
- Puncture resistant safety container for disposal of used syringes
- Antibacterial soap
- An over-the-counter pain or fever reducing medication, if your doctor has recommended that you take this prior to, at the same time, or after you give yourself Rebif® to help minimize the fever, chills, sweating and muscle aches (flu-like symptoms) that may occur.

When first starting treatment with Rebif®, your doctor may prescribe a “Starter Pack” containing a lower strength version (22 mcg) of Rebif®. After that, you will be using syringes containing 44 mcg.

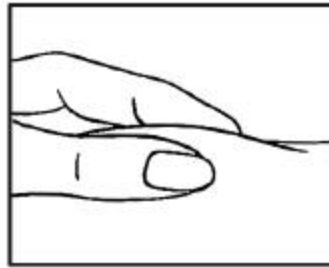
Preparing for an injection:

- Check the expiration date; **do not use if the medication is expired**. The expiration date is printed on the syringe, plastic syringe packaging and carton.
- Remove the Rebif® syringe from the plastic packaging. Keep the needle capped.
- Examine the contents of the syringe carefully. The liquid should be clear to slightly yellow. **Do not use if the liquid is cloudy, discolored or contains particles.**
- Choose the injection site. The best sites for giving yourself an injection are those areas with a layer of fat between the skin and muscle, like your thigh, the outer surface of your upper arm, your stomach or buttocks. Do not use the area near your navel or waistline. If you are very thin, use only the thigh or outer surface of the arm for injection. Use a different site each time you inject (thigh, hip, stomach or upper arm, see Figure below). Do not inject Rebif® into an area of your body where the skin is irritated, reddened, bruised, infected or abnormal in any way.
- Wash your hands thoroughly with antibacterial soap before preparing to inject the medication.
- Clean the injection site with an alcohol swab (wipe) or cotton ball with rubbing alcohol using a circular motion. To avoid stinging, you should let your skin dry before you inject Rebif®.

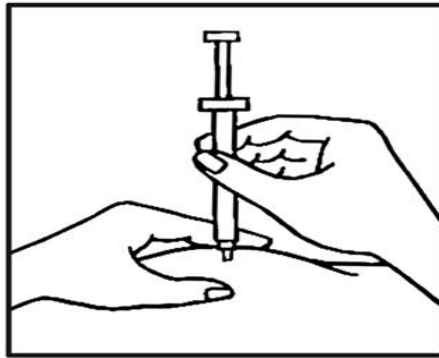


Giving yourself an injection of Rebif®

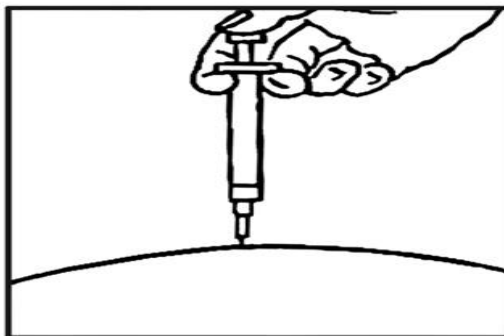
- Remove the needle cap from the syringe needle.
- If your doctor has told you to use less than the full 0.5ml dose, slowly push the plunger in until the amount of medication left in the syringe is the amount your doctor told you to use.
- Use your thumb and forefinger to pinch a pad of skin surrounding the cleaned injection site (see figure below). Hold the syringe like a pencil with your other hand.



- While still pinching the skin, swiftly insert the needle like a dart at about a 90 degree angle (just under the skin) into the pad of tissue as shown below.



- After the needle is in, remove the hand that you used to pinch your skin and inject the drug using a slow, steady push on the plunger until all the medication is injected and the syringe is empty.



- Withdraw the needle and apply gentle pressure to the injection site with a dry cotton ball or sterile gauze. Applying a cold compress or ice pack to the injection site after injection may help reduce local skin reactions.
- Put a small adhesive bandage strip over the injection site, if desired.
- Discard the syringe and needle as you were instructed by your doctor or health care professional into a puncture resistant syringe disposal container.
- Keep a record of the date and location of each injection.
- After 2 hours, check the injection site for redness, swelling, or tenderness. If you have a skin reaction and it doesn't clear up in a few days, contact your doctor or nurse.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

Serono, Inc.
Randolph, MA 02368
Rev (0), March 2002