## Interferon beta-1a (Rebif®)
**Patient Information**

**Center for Multiple Sclerosis & Neuroinflammation**
1500 Owens Street, Suite 320
San Francisco, CA 94158
Tel: (415) 353-2069
Fax: (415) 353-2633
Steven Merrill, PharmD, MSCS

**Updated: 10.2019**

### USED FOR
- Relapsing-remitting forms of multiple sclerosis (MS)
- Interferon beta-1a will not cure MS. It may prevent and reduce the number of flare-ups and slow disease progression.

### HOW IT WORKS
- Interferon beta-1a is made from human proteins called interferons thought to modify the immune processes responsible for injury to the nervous system from MS.

### HOW IT IS SUPPLIED
- Interferon beta-1a comes in a single-dose prefilled syringe and an auto-injector syringe form
  - Rebif single-dose prefilled syringe
  - Rebiject II auto-injector device (requires inserting of a single-dose prefilled syringe in device)
  - Rebif Rebidose (single use, comes with syringe already inside)

### DOSE
- There are two dosing options for Interferon-beta 1a. You and your MS doctor can talk about which one works best for you.
  - 22 mcg or 44 mcg is injected under the skin (subcutaneously) three times per week. You may decide to inject on Mondays, Wednesdays, and Fridays, at least 48 hours apart.
  - When first starting, a smaller dose is used, then gradually increased over 4 weeks according to a titration schedule. On the fifth week, use the full 22 mcg or 44 mcg dose.
  - Consider hydrating well and pre-medicating with Acetaminophen (Tylenol) or Ibuprofen (Advil) to prevent flu-like symptoms.

---

This information is for educational purposes only and is not intended to replace the advice of your doctor or health care provider. We encourage you to discuss with your doctor any questions or concerns you may have.
### Titration Schedule for 22 mcg

<table>
<thead>
<tr>
<th>Week</th>
<th>Syringe</th>
<th>Amount</th>
<th>Dose (% of full dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>8.8-mcg syringe</td>
<td>1/2 of syringe</td>
<td>4.4 mcg (20%)</td>
</tr>
<tr>
<td>Week 2</td>
<td>8.8-mcg syringe</td>
<td>1/2 of syringe</td>
<td>4.4 mcg (20%)</td>
</tr>
<tr>
<td>Week 3</td>
<td>22-mcg syringe</td>
<td>1/2 of syringe</td>
<td>11 mcg (50%)</td>
</tr>
<tr>
<td>Week 4</td>
<td>22-mcg syringe</td>
<td>1/2 of syringe</td>
<td>11 mcg (50%)</td>
</tr>
<tr>
<td>Week 5 and on</td>
<td>22-mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>22 mcg (100%)</td>
</tr>
</tbody>
</table>

### Titration Schedule for 44 mcg

<table>
<thead>
<tr>
<th>Week</th>
<th>Syringe or auto-injector</th>
<th>Amount</th>
<th>Dose (% of full dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>8.8 mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>8.8 mcg (20%)</td>
</tr>
<tr>
<td>Week 2</td>
<td>8.8 mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>8.8 mcg (20%)</td>
</tr>
<tr>
<td>Week 3</td>
<td>22 mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>22 mcg (50%)</td>
</tr>
<tr>
<td>Week 4</td>
<td>22 mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>22 mcg (50%)</td>
</tr>
<tr>
<td>Week 5 and on</td>
<td>44 mcg syringe or auto-injector</td>
<td>Full syringe/auto-injector</td>
<td>44 mcg (100%)</td>
</tr>
</tbody>
</table>

### HOW IT IS GIVEN

- Interferon beta-1a is injected into the fatty layer just under the skin in the areas shown to the right.
- Do not inject into an area where the skin is irritated, reddened, bruised, infected or scarred in any way.
- Rotate injection sites to avoid skin reactions.

### STORAGE AND HANDLING

- When not used, Interferon beta-1a should be stored in the refrigerator.
- If refrigeration is not possible, Interferon beta-1a may be stored protected from light up to 25°C (77°F) for up to 30 days.
- Safely dispose of used syringes in a sharps container.

### DRUG INTERACTIONS

- There are no known drug interactions with Interferon beta-1a.

This information is for educational purposes only and is not intended to replace the advice of your doctor or health care provider. We encourage you to discuss with your doctor any questions or concerns you may have.
| COMMON SIDE EFFECTS | **Flu-like symptoms:** muscle aches, fever, tiredness, chills.  
⇒ You may be able to manage with over-the-counter (OTC) pain and fever reducers (Acetaminophen or Ibuprofen). For many people, these symptoms lessen or go away over time.  
• Thyroid problems.  
• Change in liver function tests.  
• Injection site reactions: redness, pain, swelling. |
|---------------------|-------------------------------------------------------------|
| RARE, BUT SERIOUS SIDE EFFECTS | **Tell your MS doctor right away if you have any of the following:**  
⇒ **Depression and suicidal thoughts:** feeling hopeless or feeling bad about yourself, and having thoughts of hurting yourself  
⇒ **Liver injury:** symptoms may include nausea, loss of appetite, tiredness, dark colored urine and pale stools, yellowing of your skin or the white part of your eye (jaundice), bleeding more easily than normal, confusion, sleepiness  
⇒ **Serious allergic and skin reactions:** itching, swelling of your face, eyes, lips, tongue or throat, trouble breathing anxiousness, feeling faint, skin rash, hives, sores in your mouth or skin blisters and peels.  
⇒ **Skin necrosis at the injection site:** any break in the skin, color changes (blue or black), swelling, drainage of fluid from the injection site  
⇒ **Blood problems:** low red and white blood cell, and platelet counts that can lead to infections and problems with bleeding and bruising. |
| MONITORING | • You should always check your skin for changes at the injection site.  
• During your treatment, you will need to have regular blood work to check for side effects.  
  • BEFORE starting interferon beta-1a, you will need a complete blood count and liver function tests.  
  • AFTER starting interferon beta-1a, you will need to repeat the blood work at 1 month, 3 months, and 6 months, then every 6 months thereafter. |
| MORE INFORMATION | • Websites: [www.rebif.com](http://www.rebif.com), [www.nationalmssociety.org](http://www.nationalmssociety.org)  
• Clinical Trials:  