What is AVONEX® (interferon beta-1a)?

AVONEX is a prescription medicine used to treat relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults.

It is not known if AVONEX is safe and effective in children.

Important Safety Information

Who should not use AVONEX?

- Do not take AVONEX if you are allergic to interferon beta, albumin (human), or any of the ingredients in AVONEX

Please see Important Safety Information continued on page 2 and accompanying full Prescribing Information and Medication Guide.
What is AVONEX®?

AVONEX® (interferon beta-1a) is an FDA-approved, once-a-week injectable treatment for relapsing MS. It has been prescribed to over 450,000 people since its approval in 1996.

AVONEX Works on 3 key areas in relapsing MS

- Slows the progression of physical disability
- Decreases the number of relapses
- Reduces brain lesions on magnetic resonance imaging (MRI)

Important Safety Information (cont’d)

What is the most important information I should know about AVONEX?

AVONEX can cause serious side effects. Tell your healthcare provider right away if you have any of the symptoms listed below while taking AVONEX.

- Behavioral health problems including depression, suicidal thoughts or hallucinations. Some people taking AVONEX may develop mood or behavior problems including irritability (getting upset easily), depression (feeling hopeless or feeling bad about yourself), nervousness, anxiety, aggressive behavior, thoughts of hurting yourself or suicide, and hearing or seeing things that others do not hear or see (hallucinations).

Please see Important Safety Information continued on page 3 and accompanying full Prescribing Information and Medication Guide.
AVONEX was found to:

Help slow physical disability progression
In a 2-year clinical study, it took significantly longer for people with relapsing MS taking AVONEX® (interferon beta-1a) to have increased physical disability compared with people in the placebo group.

- People taking AVONEX were 37% less likely to have increased physical disability at 2 years
- At the end of this study, 78% of people (67 out of 85) taking AVONEX had no increase in physical disability, compared with 66% of people (58 out of 87) in the placebo group.

The most common side effects of AVONEX are flu-like symptoms (fever, chills, muscle aches, and tiredness) early during the course of therapy. Usually, these symptoms last for a day after the injection.

Important Safety Information (cont’d)

What is the most important information I should know about AVONEX? (cont’d)

- Liver problems, or worsening of liver problems including liver failure and death. 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, bleeding more easily than normal, confusion, and sleepiness. During your treatment with AVONEX you will need to see your healthcare provider regularly and have regular blood tests to check for side effects.

Reduce Relapses
In people who took AVONEX® (interferon beta-1a) in a full 2-year clinical study, AVONEX reduced relapses by 32% compared with placebo.

- The annual relapse rate was 0.61 per patient-year in the AVONEX-treated group and 0.90 per patient-year in the placebo-treated group (P=0.002)

When including the people in the study who didn’t take AVONEX for the full 2 years, AVONEX reduced relapses by 18% compared with placebo.

- The annual relapse rate was 0.67 per patient-year in the AVONEX-treated group and 0.82 per patient-year in the placebo-treated group.

Help reduce brain lesions
In a 2-year study, AVONEX® (interferon beta-1a) reduced the number of gadolinium (Gd)-enhanced lesions by 75%, compared with the beginning of the study.*

- At the start of the study, people in the AVONEX group had 3.2 Gd-enhanced lesions vs 0.8 lesions after 2 years on AVONEX.

* Patients in the placebo group saw a 30% reduction from baseline in the number of Gd-enhanced lesions after 2 years.

Please see Important Safety Information continued on page 4 and accompanying full Prescribing Information and Medication Guide.
Questions to ask your healthcare team

Every visit with your healthcare team is an opportunity for you and your care partner to ask questions. Staying informed is an important part of treating your relapsing MS. Below is a list of questions you might want to discuss with your doctor at your next appointment. Remember, no question is too big or too small.

1. What are the benefits and risks of AVONEX?
2. How will I know if AVONEX is working?
3. What should I expect when I start AVONEX?
4. Can there be side effects from AVONEX?
5. How can I manage common side effects such as flu-like symptoms?
6. Does the maker of AVONEX have other relapsing MS treatment options?

Do not take Avonex if you are allergic to interferon beta, albumin (human), or any of the ingredients in Avonex.

Important Safety Information (cont’d)

What is the most important information I should know about AVONEX? (cont’d)

- Serious allergic reactions and skin reactions. Symptoms may include itching, swelling of the face, eyes, lips, tongue or throat, trouble breathing, anxiousness, feeling faint, and skin rash, hives, sores in your mouth, or your skin blisters and peels.

Please see Important Safety Information continued on page 5 and accompanying full Prescribing Information and Medication Guide.
When you’re starting relapsing MS treatment for the first time—or switching to a new treatment—you can feel overwhelmed. To support you on your journey, the Above MS™ program from Biogen is here for you with tips, tools, and information for your relapsing MS—and so much more—including:

- **Support Coordinators** offering one-on-one MS support over the phone
- **Peer Community** who can help you connect with others living with MS
- **Financial and Insurance Support** to help you find the best solutions in terms of insurance counseling, Benefits Investigation, our $0 Copay Program, and copay assistance, if you’re eligible
- **Nurse Educators** available by phone 24/7 to answer questions

**Important Safety Information (cont’d)**

**What should I tell my healthcare provider before using AVONEX?**

Before taking AVONEX, tell your healthcare provider if you:

- are being treated for a mental illness, or had treatment in the past for any mental illness, including depression and suicidal behavior

**Injection training**

Above MS™ Nurse Educators are here to provide additional support to you and your care partner with supplemental injection training and to address questions related to relapsing MS and AVONEX® (interferon beta-1a).

The program provides additional injection training with a nurse visit in your home—at no cost to you. Nurse Educators are also available by phone 24 hours a day, 7 days a week, and can be reached by calling 1-800-456-2255.

Please keep in mind that your doctor is always your primary resource when it comes to your MS and your treatment.

**Join the Above MS program. Visit AVONEX.com or call 1.800.456.2255 to get started.**

Please see Important Safety Information continued on page 6 and accompanying full Prescribing Information and Medication Guide.
Relapsing MS
Glossary

Autoimmune disease: When your immune system mistakes your own cells for a foreign invader and attacks them

Gadolinium (Gd)-enhanced lesions: Lesions that show active inflammation using a dye containing gadolinium.

Interferon: Protein produced by your body as part of its natural defense system.

Physical disability progression: Total or partial loss of a person’s bodily functions, as measured by the Expanded Disability Status Scale (EDSS)

Relapse: When MS symptoms appear, reappear, or become worse. Also called a “flare-up,” “attack,” or “exacerbation”

Questions?
To learn more, call an Above MS™ Support Coordinator at 1-800-456-2255, Monday through Friday, 8:30 AM to 8 PM ET.

Important Safety Information (cont’d)
What should I tell my healthcare provider before using AVONEX? (cont’d)
Before taking AVONEX, tell your healthcare provider if you (cont’d):

• have or had bleeding problems or blood clots, have or had low blood cell counts, have or had liver problems, have or had seizures (epilepsy), have or had heart problems, have or had thyroid problems, have or had any kind of autoimmune disease (where the body’s immune system attacks the body’s own cells), such as psoriasis, systemic lupus erythematosus, or rheumatoid arthritis
• drink alcohol
• are pregnant or plan to become pregnant. It is not known if AVONEX will harm your unborn baby. Tell your healthcare provider if you become pregnant during your treatment with AVONEX
• are breastfeeding or plan to breastfeed. It is not known if AVONEX passes into your breast milk. You and your healthcare provider should decide if you will use AVONEX or breastfeed. You should not do both

Tell your healthcare provider about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements.

Please see Important Safety Information continued on page 7 and accompanying full Prescribing Information and Medication Guide.
Important Safety Information (cont’d)

What are the possible side effects of AVONEX?
AVONEX can cause serious side effects, including:

- **Heart problems, including heart failure.** While AVONEX is not known to have any direct effects on the heart, a few patients who did not have a history of heart problems developed heart muscle problems or congestive heart failure after taking AVONEX. If you already have heart failure, AVONEX may cause your heart failure to get worse. Call your healthcare provider right away if you have worsening symptoms of heart failure such as shortness of breath or swelling of your lower legs or feet while using AVONEX
  
  Some people using AVONEX may have other heart problems including low blood pressure, fast or abnormal heartbeat, chest pain, and heart attack or heart muscle problem (cardiomyopathy)

- **Blood problems.** AVONEX can affect your bone marrow and cause low red and white blood cell, and platelet counts. In some people, these blood cell counts may fall to dangerously low levels. If your blood cell counts become very low, you can get infections and problems with bleeding and bruising

- **Seizures.** Some patients have had seizures while taking AVONEX, including patients who have never had seizures before

- **Infections.** Some people who take AVONEX may get an infection. Symptoms of an infection may include fever, chills, pain or burning with urination, urinating often, bloody diarrhea, and coughing up mucus

- **Thyroid problems.** Some people taking AVONEX develop changes in their thyroid function. Symptoms of thyroid changes include problems concentrating, feeling cold or hot all the time, weight changes, and skin changes

Tell your healthcare provider right away if you have any of the symptoms listed above.

The most common side effects of AVONEX include:

- **Flu-like symptoms.** Most people who take AVONEX have flu-like symptoms early during the course of therapy. Usually, these symptoms last for a day after the injection. You may be able to manage these flu-like symptoms by taking over-the-counter pain and fever reducers. For many people, these symptoms lessen or go away over time. Symptoms may include muscle aches, fever, tiredness, and chills

Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

Please see accompanying full Prescribing Information and Medication Guide.

This information does not take the place of talking with your healthcare provider about your medical condition or your treatment.
To learn more visit AVONEX.com