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Avonex

Pronunciation: *a-vuh-necks*

Generic name: [interferon beta-1a](#)

Dosage form: injection for intramuscular use

Drug class: [Interferons](#)

Medically reviewed by [Carmen Pope, BPharm](#). Last updated on Dec 10, 2024.

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What is Avonex?

Avonex is used to treat relapsing [multiple sclerosis](#) (MS) in adults (including clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease). Avonex is given by injection into a muscle, usually once weekly at bedtime.

Avonex's **mechanism of action** resembles that of interferons which are proteins naturally produced by our immune system that help regulate the body's immune response and fight viral infections. Avonex contains interferon beta 1-a, which is a man-made form of interferon that works in the same way, binding to specific receptors on cell surfaces and decreasing the activity of immune cells that attack the myelin sheath, reducing inflammation in the central nervous system, and helping to suppress the autoimmune response that characterizes MS. Avonex belongs to the drug class called interferons. It may also be called an immunomodulator.

Avonex will not cure MS, it will only decrease the frequency of relapse symptoms.

Avonex ([interferon beta-1a](#)) gained FDA approval on May 17, 1996. There is no Avonex generic (more correctly called a biosimilar).

- Another form of interferon beta-1a, called [Rebif](#), also used for MS, is given 3 times a week by subcutaneous (under the skin) injection.

Warnings

Avonex can harm your liver. Call your doctor if you have symptoms such as [nausea](#), loss of appetite, tiredness, confusion, easy bruising or bleeding, dark urine, clay-colored stools, or yellowing of your skin or eyes.

Some people have thoughts about suicide while using interferon beta-1a. Stay alert to changes in your mood or symptoms. Report any new or worsening symptoms to your doctor.

Before using Avonex, tell your doctor if you are allergic to any drugs, or if you have liver disease, a thyroid disorder, epilepsy or other seizure disorder, heart disease, chest pain (angina), congestive heart failure, a heart rhythm disorder,

or a history of depression or suicidal behavior.

Before taking this medicine

You should not use Avonex if you are allergic to natural or recombinant interferon beta or albumin.

To make sure Avonex is safe for you, tell your doctor if you have:

- [depression](#), mental illness, or suicidal thoughts or actions;
- liver disease;
- bleeding problems or a blood clot;
- low blood cell counts;
- heart disease;
- a thyroid disorder;
- a latex allergy;
- an autoimmune disorder such as [rheumatoid arthritis](#), [lupus](#), or [psoriasis](#);
- a seizure; or
- if you drink alcohol.

Some brands of interferon beta-1a contain donated human plasma and may contain viruses or other infectious agents. Donated plasma is tested and treated to reduce the risk of contamination, but there is still a small possibility it could transmit disease. Ask your doctor about any possible risk.

Tell your doctor if you are pregnant or plan to become pregnant, or if you are breastfeeding.

Interferon beta-1a is not approved for use by anyone younger than 18 years old.

 [Avonex pregnancy and breastfeeding warnings](#) (more detail)

How should I use Avonex?

Use Avonex exactly as prescribed by your doctor. Follow all directions on your prescription label and read all medication guides or instruction sheets. Your doctor may occasionally change your dose.

Avonex is given by injection. A healthcare provider may teach you how to properly use the medication by yourself.

Read and carefully follow any Instructions for Use provided with your medicine. Ask your doctor or pharmacist if you don't understand all the instructions.

Avonex is injected into a muscle, usually once weekly at bedtime, on the same day each week (such as every Monday).

The powder form of this medicine must be mixed with a liquid (diluent) before using it. Prepare an injection only when you are ready to give it. Do not use if the medicine has changed colors or has particles in it. Call your pharmacist for new medicine.

Your care provider will show you where on your body to inject Avonex. Use a different place each time you give an injection. Do not inject into the same place two times in a row.

About 2 hours after your injection, check for skin redness, swelling, or pain where you gave the injection. **Call your doctor if you have a skin reaction that does not go away within a few days.**

This medicine can cause flu-like symptoms, especially when you first start using it. You may be given other medications to help prevent these symptoms. Keep using these medicines for as long as your doctor has prescribed.

You will need frequent medical tests.

Each prefilled syringe or injection pen is for one use only. Throw it away after one use, even if there is still medicine left inside.

Store this medicine in the refrigerator. Protect from light and do not freeze.

After mixing the powder form of Avonex (single-use vial) with a diluent, store the mixture in a refrigerator and use it within 6 hours.

The Avonex prefilled syringe may be removed from the refrigerator about 30 minutes before your injection, to reach room temperature. Do not warm the medicine under hot water.

You may also store Avonex for a short time at cool room temperature protected from light.

- Do not leave the prefilled syringe out of a refrigerator for longer than 7 days.
- Do not leave the Avonex vial out of a refrigerator for longer than a total of 30 days.

Do not freeze. Throw away the medicine if it has become frozen.

Each vial or syringe is for one use only. Throw it away after one use, even if there is still medicine left inside.

Use a needle and syringe only once and then place them in a puncture-proof "sharps" container. Follow state or local laws about how to dispose of this container. Keep it out of the reach of children and pets.

 [Avonex patient tips](#) (more detail)

What happens if I miss a dose?

Use the medicine as soon as you can, but do not inject Avonex two days in a row. Do not use two doses at one time.

What happens if I overdose?

Seek emergency medical attention or call the Poison Help line at 1-800-222-1222.

What should I avoid while using Avonex?

Avoid injecting Avonex into skin that is red, bruised, irritated, scarred, or infected.

Avonex side effects

Get emergency medical help if you have **signs of an allergic reaction to Avonex** (hives, itching, [anxiety](#), difficult breathing, swelling in your face or throat) **or a severe skin reaction** (fever, [sore throat](#), burning eyes, skin pain, red or

purple [skin rash](#) with blistering and peeling).

Interferon beta-1a can cause life-threatening blood clots in the small blood vessels inside your organs, such as your brain or kidneys. Seek medical help right away if you have symptoms of this condition, such as a fever, tiredness, decreased urination, bruising, or nosebleeds.

Call your doctor at once if you have:

- pain, swelling, bruising, redness, oozing, or skin changes where the injection was given;
- a light-headed feeling, like you might pass out;
- unusual changes in mood or behavior (feeling hopeless, anxious, nervous, irritable, or depressed);
- thoughts about suicide or hurting yourself;
- easy bruising, unusual bleeding;
- a seizure;
- **heart problems** - swelling, rapid weight gain, feeling short of breath, rapid heartbeats, chest pain spreading to your jaw or shoulder, nausea, sweating;
- **liver problems** - nausea, loss of appetite, tiredness, confusion, easy bruising or bleeding, dark urine, clay-colored stools, or [jaundice](#) (yellowing of your skin or eyes);
- **signs of infection** - fever, chills, cough with mucus, bloody [diarrhea](#), pain or burning when you urinate; or
- **thyroid problems** - mood swings, trouble sleeping, tiredness, hunger, diarrhea, pounding heartbeats, muscle weakness, sweating, [dry skin](#), thinning hair, menstrual changes, weight changes, puffiness in your face, feeling more sensitive to hot or cold temperatures.

Common Avonex side effects may include:

- low blood cell counts;
- skin changes where the injection was given;
- depression;
- abnormal liver function tests;
- stomach pain; or
- **flu symptoms** - headache, fever, chills, chest pain, back pain, tiredness, weakness, muscle aches.

This is not a complete list of side effects and others may occur. Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

 [Avonex side effects](#) (more detail)

Related/similar drugs

Ocrevus

Ocrevus (ocrelizumab) is used for MS to treat relapsing and primary progressive forms of multiple ...

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5.3 / 10

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Avonex dosing

Usual Adult Maintenance Dose of Avonex for Multiple Sclerosis: Avonex 30 mcg IM once a week.

Titrate the dose as follows to reduce the incidence and severity of influenza-like symptoms:

- Week 1: Avonex 7.5 mcg IM once a week
- Week 2: Avonex 15 mcg IM once a week
- Week 3: Avonex 22.5 mcg IM once a week
- Week 4+: Avonex 30 mcg IM once a week.

Use: For the treatment of patients with relapsing forms of multiple sclerosis to slow the onset of physical disability and decrease the frequency of clinical exacerbations.

Available as an Avonex single-dose prefilled syringe and single-dose prefilled autoinjector.

 [Detailed Avonex dosage information](#)

What other drugs will affect Avonex?

Other drugs may interact with interferon beta-1a, including prescription and over-the-counter medicines, [vitamins](#), and [herbal products](#). Tell your doctor about all your current medicines and any medicine you start or stop using.

 [Avonex drug interactions](#) (more detail)

Does Avonex interact with my other drugs?

Enter medications to view a detailed interaction report using our [Drug Interaction Checker](#).

Avonex

+

Enter a drug name

Add

Avonex ingredients

Active ingredient: interferon beta-1a

Inactive ingredients: **Avonex Single-Dose Prefilled Syringe**: arginine hydrochloride, glacial acetic acid, polysorbate 20, sodium acetate trihydrate in water for injection.

Inactive ingredients: **Avonex Single-Dose Prefilled Autoinjector Pen**: arginine hydrochloride, glacial acetic acid, polysorbate 20, sodium acetate trihydrate in water for injection.

Who makes Avonex?

Biogen Inc. makes Avonex.

Avonex Biosimilars

Biosimilar and interchangeable products are biological products that are highly similar to and have no clinically meaningful differences from the reference product.

Reference products

These are biological products that have already been approved by the FDA, against which biosimilar products are compared. There are 2 for Avonex.

Avonex (interferon beta-1a) - Biogen Inc.



Formulation type	Strength
Autoinjector	30 mcg/0.5 mL
Pre-Filled Syringe	30 mcg/0.5 mL
Single-Dose Vial	30 mcg Discontinued

Rebif (interferon beta-1a) - EMD Serono, Inc.



Popular FAQ

How does Avonex work for Multiple Sclerosis (MS)?



How long can Avonex be unrefrigerated?



How do you use the Avonex pen injector?



References

1. [Avonex Package Insert](#)
2. [Avonex Prescribing Information](#)

More about Avonex (interferon beta-1a)

- [Check interactions](#)
- [Compare alternatives](#)
- [Reviews \(46\)](#)
- [Side effects](#)
- [Dosage information](#)
- [Patient tips](#)
- [During pregnancy](#)
- [Drug class: interferons](#)

Patient resources

Other brands

[Rebif, Rebif Rebidose](#)

Professional resources

- [Avonex prescribing information](#)

Other brands

[Rebif](#)

Other formulations

- [Avonex Pen](#)
- [Avonex Prefilled Syringe](#)

Related treatment guides

- [Multiple Sclerosis](#)

Further information

Always consult your healthcare provider to ensure the information displayed on this page applies to your personal circumstances.


[Medical Disclaimer](#)

DRUG STATUS

Availability

Rx Prescription only

[Pregnancy & Lactation](#)

 Risk data available

CSA Schedule*

N/A Not a controlled drug

Approval History

10+
years FDA approved 1996



User Reviews & Ratings

7.3 / 10

[46 Reviews](#)

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