Mepolizumab

Pronunciation: *meh-po-liz-u-mab*
Generic name: mepolizumab
Brand name: Nucala
Dosage form: injection for subcutaneous use (prefilled pen, autoinjector, vial)
Drug class: Interleukin inhibitors

Medically reviewed by Carmen Pope, BPharm. Last updated on Mar 12, 2025.

Uses Side effects Before taking Dosage What to avoid Interactions FAQ

What is Mepolizumab?

Mepolizumab (Nucala) is a prescription medication classified as a monoclonal antibody that specifically targets and reduces eosinophils, which are a type of white blood cell that can cause inflammation when present in high numbers. This injection is FDA-approved for several eosinophil-related conditions including:

- Hypereosinophilic Syndrome (HES): Helps prevent flare-ups and reduces symptoms in adults and children 12 years and older
- Eosinophilic Granulomatosis with Polyangiitis (EGPA): Controls symptoms and reduces flare-ups of this rare autoimmune disorder in adults
- Severe Asthma: Works alongside other asthma medications to control symptoms in adults and children at least 6 years old (not intended for emergency treatment of asthma attacks)
- Chronic Rhinosinusitis with Nasal Polyps (CRSwNP): Manages symptoms in adults when standard steroid treatments aren't effective, potentially helping patients avoid nasal polyp surgery.

Mepolizumab is given by a subcutaneous injection once every 4 weeks. Patients have the option of self-administration or receiving the injection from a healthcare provider. The autoinjector version is approved for individuals 12 and older, while the prefilled syringe can be used for children as young as 6.

The FDA approved mepolizumab on November 4, 2015, under the brand Nucala. Currently, there are no generic alternatives or biosimilar versions available.

Common side effects

The most common side effects of mepolizumab are:

- **Headaches** - ranging from mild to moderate
- **Fatigue** - feeling unusually tired or exhausted

- **Throat discomfort** - soreness or pain in the mouth or throat area
- **Musculoskeletal pain** - discomfort in the back or joints
- **Injection site reactions** - temporary redness, swelling, pain, itching, or burning where Nucala was injected

Mepolizumab side effects (more detail)

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Severe side effects and warnings

Allergic reactions

Mepolizumab may cause serious hypersensitivity reactions, including potentially life-threatening anaphylaxis. These reactions can develop within hours or even days after your Nucala injection. **Seek emergency medical help immediately if you notice:**

- Skin reactions (hives, rash)
- Breathing difficulties (wheezing, chest tightness)
- Dizziness or feeling faint
- Facial swelling, especially lips, tongue, or throat.

Herpes Zoster (Shingles) risk

Patients receiving Nucala have an increased risk of developing herpes zoster infections that can cause shingles.

Contact your healthcare provider if you develop:

- Skin blisters or sores
- Unusual itching, tingling sensations
- Burning pain
- Distinctive rash on your face or torso

Important medication advisory

Steroid medication warning: If you're currently using oral or inhaled steroids alongside mepolizumab, never stop them suddenly without medical supervision. Consult your healthcare provider about proper tapering protocols.

This information doesn't cover all possible side effects of mepolizumab. For comprehensive information, always consult the official Nucala Prescribing Information document. Report any adverse reactions to your doctor or the FDA's MedWatch program at 1-800-FDA-1088.

Age-Specific Usage Restrictions

Mepolizumab injection has specific age limitations for different conditions:

- **Hypereosinophilic Syndrome (HES):** Not authorized for children under 12 years
- **Severe Asthma:** Not approved for children younger than 6 years
- **EGPA or CRSwNP:** Not approved for patients under 18 years of age.

Before taking

Do not use mepolizumab if you are allergic to mepolizumab, Nucala, or any of the inactive ingredients in the injection.

To make sure mepolizumab is safe for you, tell your doctor about all your medical conditions, including if you:

- have or have had a parasite infection (such as roundworms or tapeworms)
- are taking oral or inhaled corticosteroid medicines
- have a history of herpes zoster (also called shingles).
- are pregnant or plan to become pregnant
- are breastfeeding or plan to breastfeed.

You may be given a zoster (shingles) vaccine before you start using mepolizumab.

Pregnancy

It is not known if mepolizumab may harm your unborn baby. **Tell your doctor if you become pregnant while using mepolizumab.** Your name may be listed on a pregnancy registry to track the effects of mepolizumab on the baby.

Breastfeeding

You and your healthcare provider should decide if you will use mepolizumab and breastfeed. You should not do both without talking with your healthcare provider first.

Mepolizumab pregnancy and breastfeeding warnings (more detail)

How is mepolizumab administered?

Mepolizumab is injected under the skin, usually once every 4 weeks.

- It can be self-administered after training or given by a healthcare provider.
- Injections are given under the skin of your thigh or stomach (abdomen), or a caregiver can give the injection in the back of your upper arm.
- Mepolizumab may be prescribed as a single-dose prefilled autoinjector for people 12 years and older or as a single-dose prefilled syringe for people 6 and older.

Read the Instructions for Use in the mepolizumab Package Insert that comes with Mepolizumab for details about the right way to give your injections at home.

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

Mepolizumab is not a rescue medicine for asthma attacks. Only use a fast acting bronchodilator such as albuterol for an attack. Seek medical attention if your breathing problems get worse quickly, or if you think your asthma medications are not working as well.

Mepolizumab dosing

Severe asthma

Adults and children 12 and older: 100 mg SC 1 time every 4 weeks.

Children aged 6 to 11 years: 40 mg SC 1 time every 4 weeks.

Chronic rhinosinusitis with nasal polyps (CRSwNP)

Adults: 100 mg SC 1 time every 4 weeks.

Eosinophilic Granulomatosis with Polyangiitis (EGPA)

Adults: 300 mg (as 3 separate 100mg injections) SC 1 time every 4 weeks.

Hypereosinophilic Syndrome (HES)

Adults and children aged 12 and older: 300 mg (as 3 separate 100mg injections) SC 1 time every 4 weeks.

Detailed Mepolizumab dosage information

What happens if I miss a dose?

If you miss a dose, inject a dose as soon as possible. Then continue (resume) your injection on your regular dosing schedule.

If you do not notice that you have missed a dose until it is time for your next scheduled dose, then inject the next scheduled dose as planned. **Do not** use two doses at one time. If you are not sure when to inject mepolizumab, call your healthcare provider.

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 mepolizumab?

Follow your doctor's instructions about any restrictions on food, beverages, or activity.

What other drugs will affect mepolizumab?

Tell your doctor about all your current medicines and any you start or stop using, especially:

- an oral (taken by mouth) or inhaled steroid medicine.

Other drugs may interact with Mepolizumab, including prescription and over-the-counter medicines, vitamins, and herbal products. Tell each of your healthcare providers about all medicines you use now and any medicine you start or stop using. Formal drug interaction trials have not been performed with mepolizumab.

Mepolizumab drug interactions (more detail)

Does mepolizumab interact with my other drugs?

Enter medications to view a detailed interaction report using our Drug Interaction Checker.

mepolizumab

+

Enter a drug name Add

Mepolizumab storage

Store the mepolizumab prefilled syringe or mepolizumab autoinjector in the original carton in a refrigerator. Do not freeze or shake the medicine.

- After removing the medicine from the carton, you must use the syringe or autoinjector within 8 hours.

You may store the prefilled syringe or autoinjector in the unopened carton at room temperature for up to 7 days.

- Throw away a syringe or autoinjector left out of the refrigerator for more than 7 days.

Safely throw away medicine that is out of date or no longer needed.

Keep out of the reach of children.

Mepolizumab ingredients

Mepolizumab is only available as the brand Nucala.

Active Ingredient: mepolizumab.

Inactive Ingredients (Nucala vials): polysorbate 80, sodium phosphate dibasic heptahydrate, and sucrose.

Inactive Ingredients (Nucala prefilled autoinjectors and prefilled syringes): citric acid monohydrate, EDTA, disodium dihydrate, polysorbate 80, sodium phosphate dibasic heptahydrate, and sucrose.

Mepolizumab for injection is available as:

- mepolizumab 100 mg of lyophilized powder in a single-dose vial for reconstitution
- mepolizumab 100 mg/mL, single-dose prefilled autoinjector/syringe
- mepolizumab 40 mg/0.4 mL, single-dose prefilled syringe.

Who makes Mepolizumab?

GlaxoSmithKline LLC, makes mepolizumab, under the brand name Nucala.

Mepolizumab 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 is 1 for mepolizumab.

Nucala (mepolizumab) - GlaxoSmithKline LLC

Formulation type	Strength
Autoinjector	100 mg/mL
Autoinjector	100 mg/mL
Pre-Filled Syringe	100 mg/mL
Pre-Filled Syringe	100 mg/mL
Pre-Filled Syringe	40 mg/0.4 mL
Pre-Filled Syringe	40 mg/0.4 mL
Single-Dose Vial	100 mg
Single-Dose Vial	100 mg

View Nucala information in detail.

Popular FAQ

How long does it take for Nucala to work?

Can Nucala cause weight gain?

Can Nucala be self-administered? How is it injected?

How does Nucala (mepolizumab) work? What is the MOA?

What is Nucala (mepolizumab) used for and how is it given?

View more FAQ...

References

1. Mepolizumab Prescribing Information (Nucala)
2. Mepolizumab Package Insert (Nucala)

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Professional resources

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Related treatment guides

- Chronic Rhinosinusitis With Nasal Polyps
- Asthma
- Asthma, Maintenance
- Eosinophilic Granulomatosis with Polyangiitis
- Hypereosinophilic Syndrome

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
Drug history at FDA

User Reviews & Ratings

7.4 / 10

108 Reviews

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