

Home

2. Dupilumab

Dupilumab ⊲

Pronunciation: *DU-pill-U-mab*Generic name: dupilumab
Brand name: Dupixent

Dosage form: single-dose prefilled syringe (200 mg/1.14 mL, 300 mg/2 mL), single-dose prefilled pen (200 mg/1.14 mL, 300 mg/2 mL)

Drug class: Interleukin inhibitors

Medically reviewed by Carmen Pope, BPharm. Last updated on Mar 18, 2025.

Uses Side effects Warnings Dosage Cost Interactions FAQ

What is dupilumab?

Dupilumab is used to treat eczema, asthma, chronic rhinosinusitis with nasal polyps, COPD with an eosinophilic phenotype, eosinophilic esophagitis (EOE), or prurigo nodularis. All these conditions have inflammation in common.

Dupilumab is a subcutaneous injection that can be self-administered using a prefilled syringe or pen every 1 to 4 weeks depending on the condition. The brand name is Dupixent.

Dupilumab first gained FDA approval on March 28, 2017, under the brand Dupixent made by Sanofi and Regeneron Pharmaceuticals under a collaborative agreement. There is no generic or biosimilar.

How does dupilumab work?

Dupilumab targets and blocks 2 key inflammatory proteins in your body, interleukin-4 (IL-4) and interleukin-13 (IL-13). Il-4 and IL-3 control inflammatory signalling pathways and substances such as proinflammatory cytokines, nitric oxide, and IgE (immunoglobulin E). This targeted approach helps control inflammation in conditions like atopic dermatitis, asthma, and other inflammatory diseases.

Dupilumab is not an immunosuppressant, rather it calms an overreactive immune system, rather than fully suppressing it, relieving inflammation.

Dupilumab belongs to the drug class called interleukin inhibitors.

FDA-approved uses and indications

Dupilumab has been approved by the FDA for:

moderate-to-severe atopic dermatitis (eczema) in adults and children 6 months and older whose disease is not
adequately controlled with topical prescription treatments or who cannot use these treatments. May be used with or
without topical corticosteroids

- moderate-to-severe Asthma characterized by an eosinophilic phenotype or that is oral corticosteroid dependent in adults and children 6 years and older. Not for the relief of an acute asthma attack (acute bronchospasm) or status asthmatics (an extreme form of acute asthma)
- inadequately controlled **chronic rhinosinusitis with nasal polyps** (CRSwNP), as an add-on maintenance treatment in adults and children 12 years and older
- eosinophilic esophagitis (EoE) in adults and children 1 year of age and older, who weigh at least 33 pounds (15 kg).
- Prurigo nodularis (PN) in adults
- inadequately controlled **COPD** with an eosinophilic phenotype as add-on maintenance treatment in adults. Not for the relief of acute bronchospasm.

Side effects

The most common side effects of dupilumab are:

- injection site reactions, such as pain, swelling, or burning at the injection site
- upper respiratory tract infections, such as a cold or the flu
- eye-related problems with eye symptoms such as inflammation, redness, swelling, itching, or blurred vision
- · herpes virus infections and cold sores
- · elevated white blood cell counts
- musculoskeletal issues (back pain, muscle/joint pain)
- respiratory symptoms (rhinitis, throat pain)
- digestive issues (diarrhea, gastritis)
- · dizziness, sleeplessness, or headache
- · other infections such as parasitic infections or urinary tract infections
- · facial rashes or redness.

Serious side effects and warnings

Dupilumab can cause the following serious side effects.

- Allergic reactions. Dupilumab can serious hypersensitivity reactions such as anaphylaxis, serum sickness, angioedema, urticaria, rash, erythema nodosum, and erythema multiforme. Do not use dupilumab if you are allergic to dupilumab or any of the ingredients. Seek immediate medical attention for signs of severe allergic reactions including:
 - · breathing difficulties or wheezing
 - rapid heartbeat
 - fever
 - o lymph node swelling
 - facial/throat swelling

- skin reactions (hives, itching, rash)
- o gastrointestinal symptoms (nausea, vomiting, stomach cramps)
- o fainting or dizziness
- o joint pain.
- Eye problems. Tell your healthcare provider if you have any new or worsening eye problems while taking dupilumab, including eye pain, vision changes (such as blurred vision), or conjunctivitis (red or sticky eyes). Your healthcare provider may send you to an ophthalmologist for an eye exam. See Why does Dupixent cause eye problems? for more information.
- Blood vessel inflammation. Tell your healthcare provider right away if you have:
 - o an unexplained rash
 - worsening breathing difficulties
 - o persistent fever
 - o chest pain
 - o pins and needles sensation or numbness in your limbs.
- **Joint aches and pain**. Severe joint pain affecting mobility has been reported in some people who have used dupilumab. Tell your healthcare provider about any new or worsening joint symptoms.
- May increase the **risk of developing eosinophilic conditions**. These are conditions associated with overproduction of eosinophils, causing chronic inflammation and tissue damage. Tell your doctor if you develop a red or purple rash, shortness of breath, tingling or nerve pain in your hands or feet.

Tell your healthcare provider if you have any side effect that bothers you or does not go away. These are not all of the possible side effects of dupilumab. Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

<u>Dupilumab side effects</u> (more detail)

Related/similar drugs

Breztri Aerosphere

Breztri (budesonide/glycopyrrolate/formoterol fumarate) is a combination inhaler that may be used ...

Reviews & ratings

6.9 / 10

119 Reviews

View more

Rinvoq

Rinvoq (upadacitinib) is used to treat rheumatoid arthritis, psoriatic arthritis, atopic ...

Reviews & ratings

7.0 / 10

223 Reviews

View more

FEATURED

Nucala

Nucala is a monoclonal antibody that reduces levels of eosinophils (a type of white blood cell) ...

Reviews & ratings

7.3 / 10

99 Reviews

View more

Xolair

Xolair injection (omalizumab) is used to reduce the risk of severe food allergy reactions ...

Reviews & ratings

7.5 / 10

229 Reviews

View more

Eohilia

Eohilia (budesonide) suspension is used to treat eosinophilic esophagitis (EoE), to reduce symptoms ...

Reviews & ratings

Add a review

View more

Symbicort

Symbicort (budesonide and formoterol) is used to prevent bronchospasm in people with asthma or ...

Dandana 0 ----

View more

Important safety information

Parasitic Infections

- Must treat existing infections before starting dupilumab
- Discontinue if new infection doesn't respond to treatment

Corticosteroid Usage

- · Continue as directed by your healthcare provider
- Never stop suddenly without medical guidance

Vaccination Guidelines

- · Avoid live vaccines during treatment
- May reduce vaccine effectiveness

Asthma/COPD Management

- Not for sudden breathing problems
- Does not replace rescue inhalers

Age Restrictions

Dupilumab's safety and effectiveness are not established for:

- AD/eczema: under 6 months
- Asthma: under 6 years
- CRwNP: under 12 years
- EOE: under 1 year or below 33 pounds (15 kg)
- COPD with eosinophilic phenotype: under 18 years
- Prurigo nodularis: under 18 years

Before taking

Do not receive dupilumab if you are allergic to dupilumab, Dupixent, or any inactive ingredients in the injection.

Before using dupilumab injection, tell your healthcare provider about all your medical conditions, including if you:

- · have eye problems
- have a parasitic (helminth) infection, such as pinworms, roundworms or tapeworms
- are scheduled to receive any vaccinations. You should not receive a "live vaccine" right before and during treatment with dupilumab
- are taking oral, topical, or inhaled corticosteroid medicines
- have asthma and use an asthma medicine or have other medical conditions such as AD, chronic rhinosinusitis,
 EOE, prurigo nodularis, or chronic obstructive pulmonary disease, and also have asthma
- · are pregnant or plan to become pregnant
- are breastfeeding or plan to breastfeed.

Do not change or stop your other medicines, including corticosteroid medicine or other asthma medicine, without talking to your healthcare provider first. This may cause other symptoms that were controlled by those medicines to come back.

Pregnancy

It is not known whether dupilumab will harm your unborn baby. Ask your healthcare provider about the risks vs benefits of using dupilumab during pregnancy.

There is a pregnancy exposure registry for women who use dupilumab during pregnancy. The purpose of this registry is to collect information about the health of you and your baby. Your healthcare provider can enrol you in this registry. You may also enrol yourself or get more information about the registry by calling 1-877-311-8972 or going to the MotherToBaby Dupixent study page.

Breastfeeding

It is not known whether dupilumab passes into your breast milk.

Dupilumab pregnancy and breastfeeding warnings (more detail)

How do I use dupilumab?

Use dupilumab exactly as prescribed by your doctor. See the detailed "Instructions for Use" that come with the Package Insert.

Your healthcare provider will tell you how much dupilumab to inject and how often to inject it. Dupilumab is only
available from a speciality pharmacy that will work with you to schedule your shipments.

Dupilumab is usually administered 1 time every 1 to 4 weeks depending on the condition.

- It is given as an injection under the skin (subcutaneous injection).
- The pre-filled pen is for adults and children 2 years and older.
- The pre-filled syringe is for adults and children 6 months and older.

A caregiver or patient 12 years of age and older may inject dupilumab using the pre-filled syringe or pre-filled pen.

- In children 12 to 17 years of age, administer under the supervision of an adult.
- In children 6 months to less than 12 years of age, administer dupilumab by a caregiver.

Your healthcare provider may prescribe other medicines to use with this medicine. Use them exactly as your healthcare provider tells you to.

How to administer dupilumab

Dupilumab is injected under the skin, usually 1 time every 1 to 4 weeks. Your first dose may be given in 2 injections.

Take a syringe or pen out of the refrigerator and let it reach room temperature for 30 to 45 minutes before injecting your dose. Leave the needle cap on until you are ready to inject your dose.

- Do not shake the prefilled syringe or injection pen. Prepare your injection only when you are ready to give it.
- Do not use it if the medicine looks cloudy, has changed colors, or has particles inside. Call your pharmacist for new medicine.

The prefilled pen or syringe may be injected under the skin of your upper thigh or stomach area (except for the 2 inches [5 cm]) around your belly button (navel). Caregivers may also inject it in the outer area of the upper arm.

- Choose a different site for each injection. Do not inject into skin that is tender, damaged, has bruises or scars, or into areas with visible veins. Do not inject through clothes.
- 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.

Dosing information

The dosage of dupilumab depends on the condition being treated and the person's age.

Eczema

Dosing for eczema for adults: An initial dose of dupilumab 600 mg (two 300 mg injections), followed by 300 mg given every other week.

Dosing for eczema children 6 months to 5 years:

Body weight	Initial and subsequent dupilumab dosage
5 to less than 15 kg	200 mg (one 200 mg injection) every 4 weeks (Q4W)
15 to less than 30 kg	300 mg (one 300 mg injection) every 4 weeks (Q4W)

Dosing for eczema children 6 years to 17 years:

Body weight	Initial dupilumab loading dose	Subsequent dupilumab dosage
15 to less than 30 kg	600 mg (two 300 mg injections)	300 mg every 4 weeks (Q4W)
30 to less than 60 kg	400 mg (two 200 mg injections)	200 mg every 2 weeks (Q2W)
60 kg or more	600 mg (two 300 mg injections)	300 mg every 2 weeks (Q2W)

Asthma

Dosing for asthma for adults and children aged 12 and older:

Initial dupilumab loading dose	Subsequent dupilumab dosage
400 mg (two 200 mg injections)	200 mg every 2 weeks (Q2W)
Or	

Dosage for patients with oral corticosteroid-dependent asthma or with co-morbid moderate-to-severe atopic dermatitis or adults with comorbid chronic rhinosinusitis with nasal polyps

300 mg every 2 weeks (Q2W)

600 mg (two 300 mg injections) 300 mg every 2 weeks (Q2W)

Dosing for asthma for children aged 6 to 11 years:

600 mg (two 300 mg injections)

Body weight	Initial dupilumab dose and subsequent dose	
15 to less than 30 kg	300 mg every four weeks (Q4W)	
30 kg or more	200 mg every other week (Q2W)	

See the Dupixent (dupilumab) Prescribing Information for dosing information for children aged 6 to 11 years with asthma and co-morbid moderate-to-severe atopic dermatitis (includes an initial loading dose).

Chronic rhinosinusitis with nasal polyps

The recommended dosage for adults and children aged 12 and older for chronic rhinosinusitis with nasal polyps is dupilumab 300 mg given every other week (Q2W).

EoE (eosinophilic esophagitis)

Dosing for EOE for adults and children aged 1 year and older weighing at least 15kg:

Body weight	Recommended dupilumab dosage
15 to less than 30 kg	200 mg every other week (Q2W)
30 to less than 40 kg	300 mg every other week (Q2W)
40 kg or more	200 mg every week (QW)

Prurigo nodularis

The recommended dosage for adults with prurigo nodularis is an initial dose of dupilumab 600 mg (two 300 mg injections), followed by 300 mg given every other week (Q2W).

COPD (chronic obstructive pulmonary disease)

The recommended dosage for adults with COPD is dupilumab 300 mg given every other week (Q2W).

Detailed Dupilumab dosage information

Dupilumab cost

The cost of dupilumab varies based on your insurance coverage, including type of prescription drug insurance, preferred medication status, and deductible status. For cost estimates use the Dupixent Cost and Coverage Tool.

Dupixent MyWay provides comprehensive support including:

- · Financial assistance through copay cards for eligible patients
- · Help to access the medication
- · Injection training and support
- · Prescription delivery coordination
- Educational resources.

See Dupixent (dupilumab) Prices, Coupons, Copay Cards & Patient Assistance for more cost information.

What happens if I miss a dose?

If your dose schedule is **every week** and you miss a dose of dupilumab, give the dupilumab injection as soon as possible and start a new every-week dose schedule from the time you remember to take your dupilumab injection.

If your dose schedule is **every other week** and you miss a dose of dupilumab, give the dupilumab injection within 7 days from the missed dose, then continue with your original schedule. If the missed dose is not given within 7 days, wait until the next scheduled dose to give your dupilumab injection

If your dose schedule is **every 4 weeks** and you miss a dose of dupilumab, give the dupilumab injection within 7 days from the missed dose, then continue with your original schedule. If the missed dose is not given within 7 days, start a new 4-week dose schedule from the time you remember to take your dupilumab injection.

What happens if I overdose?

If you inject too much dupilumab, call your healthcare provider or Poison Help line at 1-800-222-1222 or go to the nearest hospital emergency room right away.

What should I avoid while using dupilumab?

Do not receive a "live" vaccine while using dupilumab. The vaccine may not work as well during this time and may not fully protect you from disease. Live vaccines include measles, mumps, rubella (MMR), rotavirus, typhoid, yellow fever, varicella (chickenpox), zoster (shingles), and nasal flu (influenza) vaccine.

What other drugs will affect dupilumab?

Tell your healthcare provider about all of the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Especially tell your healthcare provider if you:

- are taking oral, topical, or inhaled corticosteroid medicines have asthma and use an asthma medicine
- have atopic dermatitis, chronic rhinosinusitis with nasal polyposis, eosinophilic esophagitis, or prurigo nodularis, and

also have asthma.

Do not change or stop your corticosteroid medicine or other asthma medicine without talking to your healthcare provider. This may cause other symptoms that were controlled by the corticosteroid medicine or other asthma medicine to come back.

Dupilumab has not been reported to have a drug interaction with alcohol (see Can you drink alcohol on Dupixent?).

This list is not complete. See the Dupixent (dupilumab) Prescribing Information for a full list. Other drugs may interact, including prescription and over-the-counter medicines, vitamins, and herbal products. Not all possible drug interactions are listed here.

1 Dupilumab drug interactions (more detail)

Does dupilumab interact with my other drugs?

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



Dupilumab storage

Store dupilumab in the refrigerator at 2°C to 8°C (36°F to 46°F) in the original carton to protect from light. You may store a dupilumab prefilled syringe or dupilumab injection pen at cool room temperature for up to 14 days. Do not store above 25°C (77°F).

Throw dupilumab injection away if not used within 14 days. Do not put it back into the refrigerator. Do not expose a dupilumab injection to heat or direct sunlight. Do NOT freeze. Do NOT shake.

Injection ingredients

Dupilumab is only available as a Dupixent injection.

Active ingredients: dupilumab.

Inactive ingredients: L-arginine hydrochloride, L-histidine, polysorbate 80, sodium acetate, sucrose, and water for injection.

Available as a single-dose pre-filled syringe with a needle shield or as a pre-filled pen.

- The pre-filled syringe is available as Dupixent 300mg/2mL, 200mg/1.14mL, and 100mg/0.67mL.
- The pre-filled pen is available as Dupixent 300mg/2mL, and 200mg/1.14 mL.

Who makes dupilumab?

Dupixent (dupilumab) is manufactured by Sanofi and Regeneron Pharmaceuticals through a collaborative agreement. Sanofi is headquartered in Paris, France and Regeneron Pharmaceuticals is headquartered in Tarrytown, New York, USA.

Dupilumab 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 dupilumab.

Dupixent (dupilumab) - Regeneron Pharmaceuticals, Inc.

Formulation type	Strength
Autoinjector	200 mg/1.14 mL
Autoinjector	300 mg/2 mL
Pre-Filled Syringe	100 mg/0.67 mL Discontinued
Pre-Filled Syringe	200 mg/1.14 mL
Pre-Filled Syringe	300 mg/2 mL
Pre-Filled Syringe	300 mg/2 mL Discontinued

View **Dupixent** information in detail.

Popular FAQ

How fast does Dupixent work?	~
Is Dupixent an immunosuppressant?	~
Does Dupixent cause weight gain?	~
How long can Dupixent stay out of the fridge?	~
How does Dupixent work and what is its mechanism of action?	~
Does Dupixent cause joint pain?	~
How do you inject Dupixent?	~
Can Dupixent cure eczema?	~

More FAQ

• What are the most common skin conditions? (with photos)

View more FAQ...

References

- 1. Dupixent (dupilumab) Prefilled Pen Instructions for Use
- 2. Dupixent (dupilumab) Prefilled Syringe Instructions for Use
- 3. Dupixent (dupilumab) Prescribing Information
- 4. Dupixent (dupilumab) Package Insert

More about dupilumab

- Check interactions
- · Compare alternatives
- Reviews (523)
- · Side effects
- Dosage information
- During pregnancy
- Support group
- Drug class: interleukin inhibitors
- Breastfeeding
- En español

Patient resources

Other brands

Dupixent

Professional resources

• Dupilumab monograph

Other brands

Dupixent

Related treatment guides

- Asthma
- Asthma, Maintenance

- Atopic Dermatitis
- Chronic Rhinosinusitis With Nasal Polyps

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

7.2 / 10

523 Reviews

Images

Dupixent (dupilumab) 200 mg/1.14 mL single-dose prefilled syringe





View larger images

Drugs.com Mobile App

Access drug & treatment information, identify pills, check interactions and set up personal medication records.





About Drugs.com Advertising policy Attribution & citations

Terms & privacy

Terms of use

Editorial policy

Privacy policy

Support

Help center

Sitemap

Contact us











Subscribe to our newsletter for the latest medication news, new drug approvals and FDA alerts.

Drugs.com provides accurate and independent information on more than 24,000 prescription drugs, over-the-counter medicines and natural products. This material is provided for educational purposes only and is not intended for medical advice, diagnosis or treatment. Data sources include Micromedex (updated 7 Apr 2025), Cerner Multum™ (updated 13 Apr 2025), ASHP (updated 10 Apr 2025) and others.







Copyright © 2000-2025 Drugs.com. All rights reserved.

×