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2. onabotulinumtoxinA

# OnabotulinumtoxinA

**Pronunciation:** *on-a-bot-u-line-um tox-in A***Generic name:** OnabotulinumtoxinA**Brand names:** [Botox](#), [Botox Cosmetic](#)**Dosage form:** single-dose vial (Botox 100 units, 200 units; Botox Cosmetic 50 units, 100 units)**Drug class:** [Skeletal muscle relaxants](#)Medically reviewed by [Carmen Pope, BPharm](#). Last updated on Mar 17, 2025.[Uses](#) [Side effects](#) [Before taking](#) [Dosage](#) [What to avoid](#) [Interactions](#) [FAQ](#)

## What is onabotulinumtoxinA?

OnabotulinumtoxinA ([Botox](#), [Botox Cosmetic](#)) is a purified form of botulinum toxin type A that is used to treat chronic migraines, excessive sweating, bladder conditions, eye muscle disorders including strabismus, other muscle or neck spasms, and as a cosmetic treatment for wrinkles. It is administered as a series of small injections by a healthcare provider into targeted muscles or glands, based on the specific condition being treated.

OnabotulinumtoxinA first gained FDA approval on December 9, 1991.

## FDA-Approved Formulations and Uses

### Medical Applications

Botox Therapeutic: FDA-approved for:

- Chronic migraine prevention (155 units administered across head and neck)
- Severe underarm sweating (hyperhidrosis) (50 units per armpit)
- Overactive bladder (100 units injected into bladder wall)
- Urinary incontinence from neurological conditions (200 units into bladder wall)
- Upper limb spasticity in adults and children (varies by muscle, up to 400 units)
- Lower limb spasticity in adults and children (varies by muscle, up to 300 to 400 units)
- Cervical dystonia (neck muscle spasms) (typically 150-300 units)
- Blepharospasm (eyelid spasms) (typically 1.25-2.5 units per site)
- Strabismus (crossed eyes) (1.25-5 units per muscle).

# Cosmetic Applications

Botox Cosmetic: FDA-approved for temporary improvement of:

- Moderate to severe frown lines between the eyebrows (glabellar lines)
- Crow's feet (lateral canthal lines)
- Forehead lines
- Platysma bands (thickening of the muscles that connect the jaw and neck).

Dosage typically ranges from 20-40 units depending on the treatment area.

## Mechanism

OnabotulinumtoxinA is a neurotoxin that works by temporarily blocking the release of acetylcholine, a neurotransmitter responsible for triggering muscle contraction or gland secretion. Depending on the specific condition being treated, this can:

- Relax muscles and reduce muscle spasms
- Block pain signals when used for migraine treatment
- Reduce sweat gland activity in excessive sweating (hyperhidrosis)
- Relax wrinkles when used cosmetically.

Effects are temporary and gradually wear off as nerve endings regenerate. The effects of Botox generally begin in 1-3 days, peak at 2 weeks, and last 3-9 months, depending on the condition.

## OnabotulinumtoxinA side effects

### Common Side Effects

At the injection site:

- Bruising and swelling
- Pain or tenderness
- Temporary bumps or marks
- Possible infection.

General temporary effects (depends on where the injection was given):

- Drooping eyelids (ptosis)
- Headache
- Facial muscle weakness
- Dry mouth
- Tiredness
- Neck pain

- Mild weakness in the treatment area
- Eye problems in those being treated for eye conditions: watery/dry eyes, double vision, blurred vision, decreased eyesight, drooping eyelids/eyebrows, or swelling of your eyelids
- Allergic reactions, which may include symptoms such as itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Tell your doctor or get medical help right away if you have these symptoms.

Other common side effects experienced by those being treated with Botox for urinary incontinence are:

- urinary tract infection in both children and adults
- painful urination in adults
- bacteria, white blood cells, and blood in the urine of children
- inability to empty your bladder on your own.

## **Serious Side Effects (Boxed Warning)**

### **Distant Toxin Spread**

Symptoms can occur hours to weeks after injection and may include:

- Widespread muscle weakness
- Vision problems (double/blurred)
- Voice changes
- Speech difficulty
- Breathing problems
- Swallowing difficulty
- Bladder control issues.

### **High-Risk Groups**

- People with pre-existing breathing conditions
- Those with swallowing disorders
- Patients using neck muscles for breathing

### **Emergency Warning Signs**

Seek immediate medical care for:

- Difficulty breathing/swallowing
- Vision changes
- Spreading weakness
- Allergic reactions (rash, wheezing)

## **Safety Guidelines**

- Choose qualified providers
- Discuss complete medical history
- Follow aftercare instructions
- Report concerns immediately
- Report side effects to the FDA (1-800-FDA1088).

Note: While serious complications are rare at recommended doses, any concerning symptoms should be reported to healthcare providers immediately.

It is not known whether Botox Cosmetic is safe and effective in people younger than 18 years of age or for use more than 1 time every 3 months.

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

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## Before taking

Do not receive onabotulinumtoxinA:

- if you are allergic to or have had side effects from onabotulinumtoxinA, Botox, Botox Cosmetic, any of the inactive ingredients in the Botox products, or any other botulinum toxin product such as Myobloc, Dysport, Xeomin, Daxxify, Letybo, or Jeuveau
- have a skin infection at the planned injection site
- are being treated for urinary incontinence and have a urinary tract infection (UTI)
- are being treated for urinary incontinence and find that you cannot empty your bladder on your own (only applies to people who are not routinely catheterizing).

Tell your doctor about all your medical conditions, including if you:

- have a disease that affects your muscles and nerves, such as amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), myasthenia gravis, or Lambert-Eaton syndrome
- have or have had a breathing problem, such as asthma or emphysema
- have or have had swallowing problems
- have or have had bleeding problems
- have plans to have surgery or have had surgery on your face
- have weakness of your forehead muscles, such as trouble raising your eyebrows or drooping eyelids and plan to get onabotulinumtoxinA injection in your face
- are being treated for urinary incontinence and have symptoms of a urinary tract infection (UTI) or problems emptying your bladder on your own. Symptoms of a urinary tract infection may include pain or burning with urination, frequent urination, or fever
- are pregnant or plan to become pregnant
- are breastfeeding or plan to breastfeed.

## Pregnancy

Based on animal data, onabotulinumtoxinA may harm your unborn baby. Talk to your healthcare provider about the risks of receiving this medicine during pregnancy.

## Breastfeeding

It is not known if onabotulinumtoxinA passes into breast milk. Talk to your healthcare provider about the best way to feed your baby.

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

## How is onabotulinumtoxinA administered?

OnabotulinumtoxinA injections should be given only by a trained medical professional, even when used for cosmetic purposes.

- Botox is injected into your affected muscles, skin, or bladder.
- Botox Cosmetic is injected into the specific muscles on your face that contribute to severe wrinkles or facial lines.

Your healthcare provider may change your dose until the best dose for you is found.

- Your healthcare provider will tell you how often you will receive your injection of Botox. Botox Cosmetic injections should be spaced at least 3 months apart.

The effects of an onabotulinumtoxinA injection are temporary. Your symptoms may return completely within 3 months. After repeat injections, it may take less and less time before your symptoms return, especially if your body develops antibodies to the botulinum toxin.

Do not seek botulinum toxin injections from more than one medical professional at a time. If you switch healthcare providers, tell your new provider how long it has been since your last botulinum toxin injection.

## Other dosage information

Injections may be given into more than one area at a time, depending on the condition.

While receiving injections for eye muscle conditions, you may need to use eye drops, ointment, a special contact lens, or another device to protect the surface of your eye. Follow your doctor's instructions.

- It may take only 1 to 3 days after injection before eye muscle spasm symptoms begin to improve. You may notice the greatest improvement after 2 to 6 weeks.

It may take up to 2 weeks after injection before neck muscle spasm symptoms begin to improve. You may notice the greatest improvement after 6 weeks.

If you are being treated for excessive sweating, shave your underarms about 24 hours before your injection. Do not apply antiperspirant or deodorant for 24 hours before or after you receive the injection. Avoid exercise and hot foods or beverages within 30 minutes before the injection.

 [Detailed OnabotulinumtoxinA dosage information](#)

## What happens if I miss a dose?

Since onabotulinumtoxinA has a temporary effect and is given at widely spaced intervals, missing a dose is not likely to be harmful.

## What happens if I overdose?

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

Overdose symptoms may not appear right away, but can include muscle weakness, trouble swallowing, and weak or shallow breathing.

Using this medication more often than prescribed will not make it more effective and may result in serious side effects.

## What should I avoid after receiving onabotulinumtoxinA?

OnabotulinumtoxinA may cause loss of strength or general muscle weakness, vision problems, or dizziness within hours to weeks of receiving Botox or Botox Cosmetic. If this happens, do not drive a car, operate machinery, or do other dangerous activities.

Avoid going back to your normal physical activities too quickly after receiving an injection.

## What other drugs will affect onabotulinumtoxinA?

Tell your doctor about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Using onabotulinumtoxinA with certain other medicines may cause serious side effects. Do not start any new medicines until you have told your doctor that you have received onabotulinumtoxinA in the past. Especially tell your doctor if you:



- have received any other botulinum toxin product in the last four months
- have received injections of botulinum toxin, such as Myobloc® (rimabotulinumtoxinB), Dysport® (abobotulinumtoxinA), or Xeomin® (incobotulinumtoxinA) in the past. Be sure your doctor knows exactly which product you received
- have recently received an antibiotic by injection
- take muscle relaxants
- take an allergy or cold medicine
- take a sleep medicine
- take anti-platelets (aspirin-like products) or anti-coagulants (blood thinners).

Ask your doctor if you are not sure if your medicine is listed above. Know the medicines you take. Keep a list of your medicines with you to show your doctor and pharmacist each time you get a new medicine. This list is not complete. Other drugs may affect onabotulinumtoxinA, including prescription and over-the-counter medicines, vitamins, and herbal products. Not all possible drug interactions are listed here.

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

## Does onabotulinumtoxinA interact with my other drugs?

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

+

Add

## Storage

Unopened vials of Botox and Botox Cosmetic should be stored in a refrigerator between 2° to 8°C (36° to 46°F). Do not use after the expiration date on the vial.

Reconstituted Botox/Botox Cosmetic may be stored in a refrigerator (2° to 8°C) for up to 24 hours until the time of use.

## Ingredients

Active ingredient: onabotulinumtoxinA

Inactive ingredients: human albumin and sodium chloride.

- Botox for injection is a sterile, dried powder supplied in a single-dose vial in 100 and 200 Units.
- Botox Cosmetic for injection is a dried powder supplied in a single-dose vial in 50 and 100 Units.

Cartons have features to alert users if the content may have been compromised, for example, each Botox and Botox Cosmetic vial label and carton labeling also contain the U.S. License number 1889. Do not use the product and contact AbbVie for additional information at 1-800-678-1605 if the labeling is not as described above.

Botox is made from 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 your risk.

## Manufacturer

OnabotulinumtoxinA is only available as Botox and Botox Cosmetic, which are made by AbbVie, who acquired the previous manufacturer, Allergan, in 2020. Both forms contain the same active ingredient (onabotulinumtoxinA) but are approved for different uses.

Notable drugs from AbbVie include:

- Humira (arthritis, psoriasis, Crohn's disease)
- Vraylar (schizophrenia, bipolar disorder)
- Juvederm (dermal fillers)
- Ubrelyv (migraine)
- Rinvoq (rheumatoid arthritis)
- Skyrizi (psoriasis)

AbbVie also owns Restasis (for dry eyes) and a line of aesthetic products like Kybella (fat reduction) and CoolSculpting. Before the merger, AbbVie was best known for Humira, which for many years was the world's best-selling drug.

## Onabotulinumtoxina 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 onabotulinumtoxinA.

Botox (onabotulinumtoxinA) - AbbVie Inc. ▼

Formulation type	Strength
Single-Dose Vial	100 units
Single-Dose Vial	200 units
Single-Dose Vial	50 units <b>Discontinued</b>

View [Botox](#) information in detail.

Botox Cosmetic (onabotulinumtoxinA) - AbbVie Inc. ▼

## Popular FAQ

Does Masseter Botox work for TMJ and jaw slimming?



Botox Vs Botox Cosmetic: What is the difference?



## More FAQ

- [What is botulinum toxin used to treat?](#)

## References

1. [Botox and Botox Cosmetic Package Insert](#)
2. [Botox Prescribing Information](#)
3. [Botox Cosmetic Prescribing Information](#)

## More about onabotulinumtoxinA

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## Patient resources

### Other brands

[Botox](#), [Botox Cosmetic](#)

## Professional resources

- [OnabotulinumtoxinA monograph](#)

### Other brands

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## Related treatment guides

- [Platysma Bands](#)
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## 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

5.7 / 10

[493 Reviews](#)

## Images

[Botox \(onabotulinumtoxinA\) 100 Units powder for injection](#)



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