

BOTOX

Neuromuscular modulator

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The History of botox:

- Botox was first discovered/introduced in 1989
- In the 2000s it became licensed

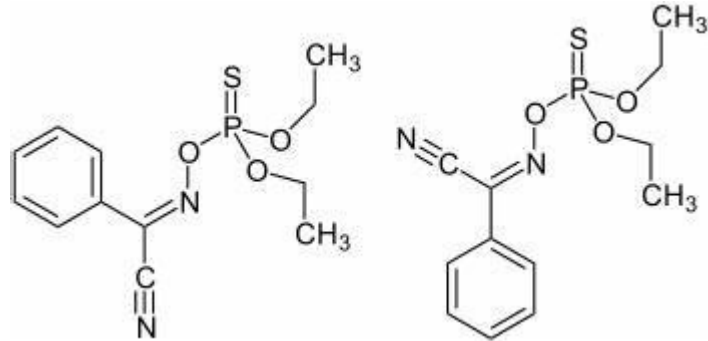
Botox as a treatment for excessive underarm sweating, or hyperhidrosis, This causes migraine headache, chronic low back pain, strokes, traumatic brain injury, and cerebral palsy to the body.

- Botox injections work by weakening or paralyzing certain muscles or by blocking certain nerves.
- yes, it is very effective

chemical structure of botox:

Botox can also be known as botulin toxins and botulinus toxins

Chemical formula for botox: C₆₇H₁₀₄N₁₇S₃

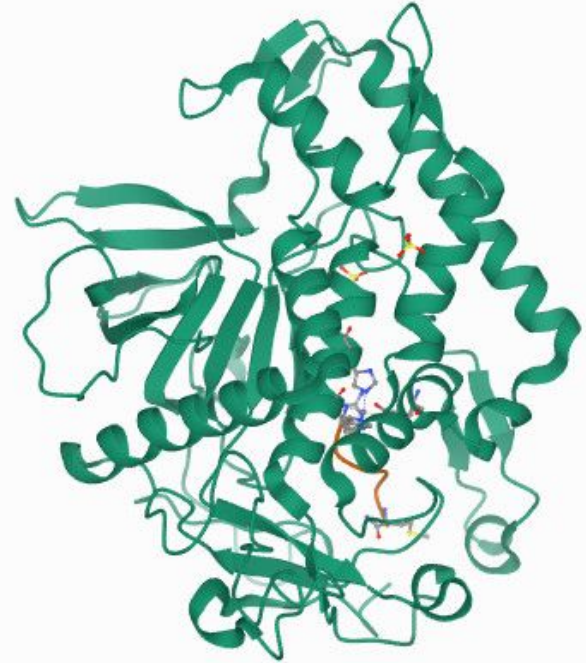
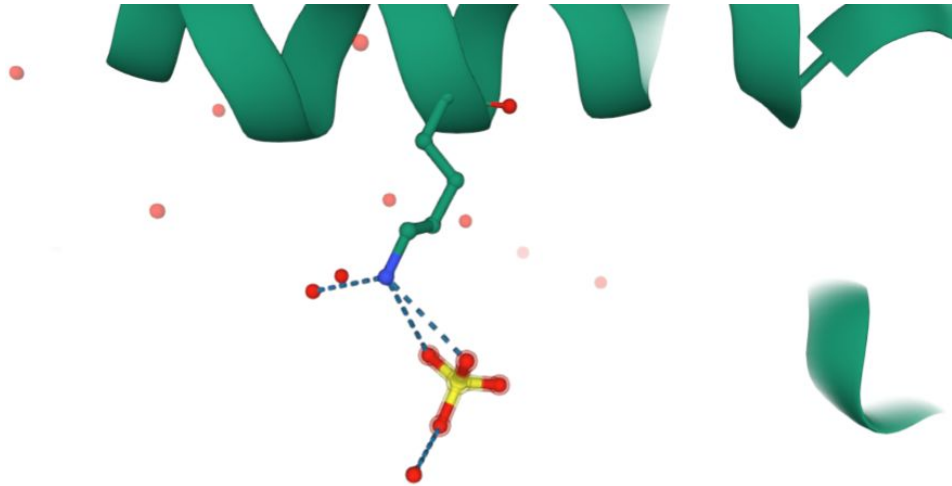


Mechanism of Therapeutic Action:

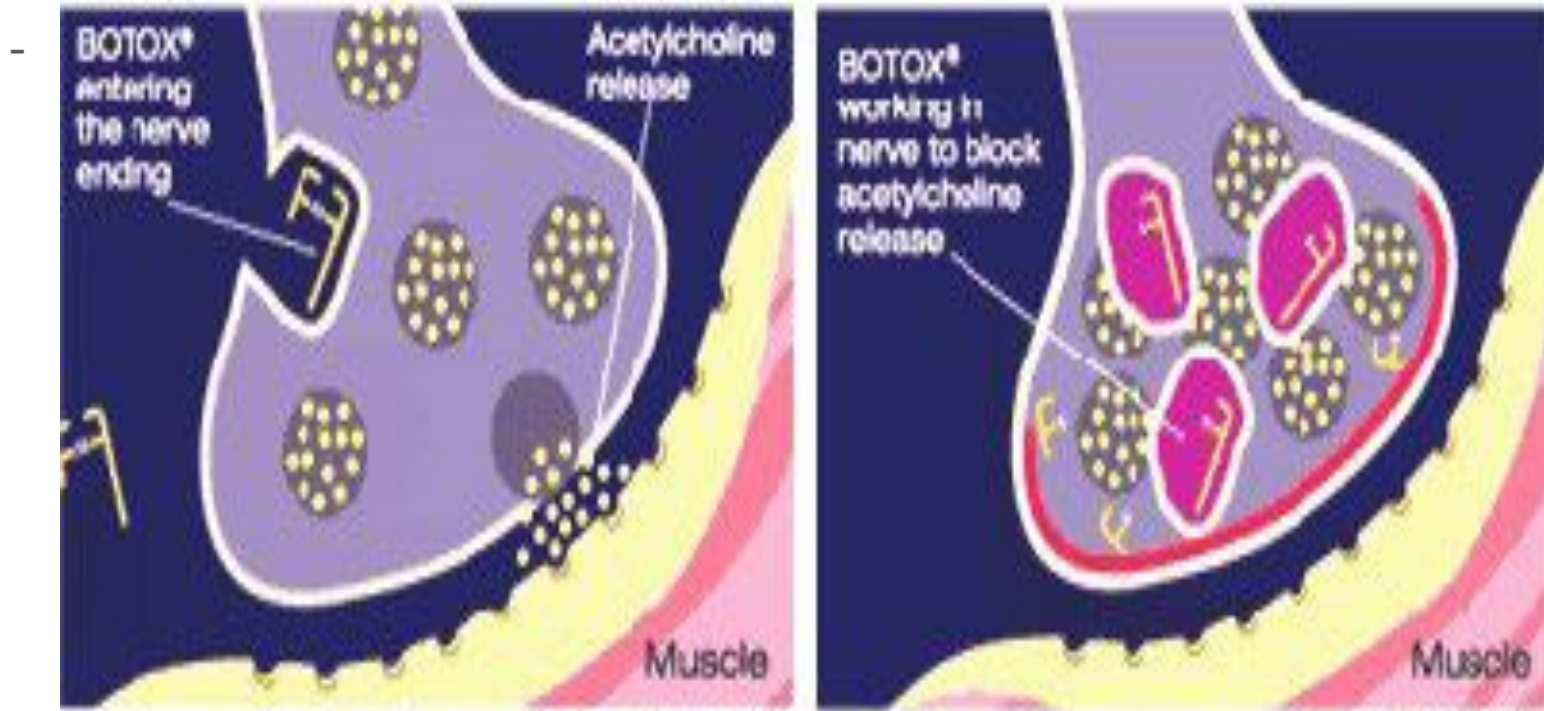
The toxin, a zinc proteinase, acts by preventing the release of the neurotransmitter acetylcholine from vesicles at the neuromuscular junction. As a proteinase, the toxin cleaves one or more of the fusion proteins by which the vesicles release acetylcholine. In the absence of acetylcholine, contraction of the muscle--or in some cases, the activity of a gland--is temporarily inhibited.

Botox injections block certain chemical signals from nerves, mostly signals that cause muscles to contract. The most common use of these injections is to temporarily relax the facial muscles that cause wrinkles in the forehead and around the eyes. Botox injections are also used to treat conditions that affect how the body functions.

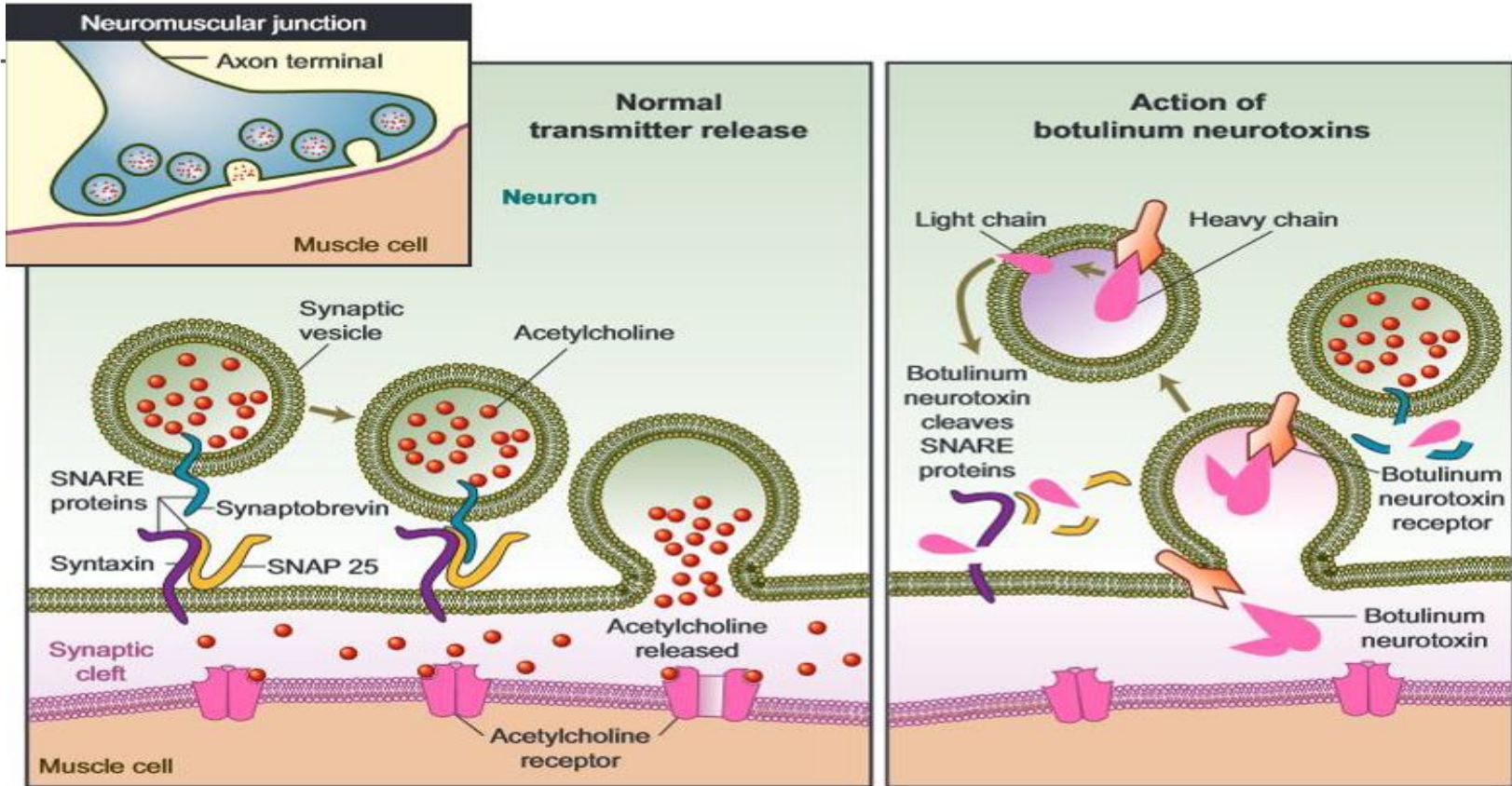
Crystal structure of the catalytic domain of Botulinum neurotoxin serotype a with a substrate analog peptide:



On how botox works:

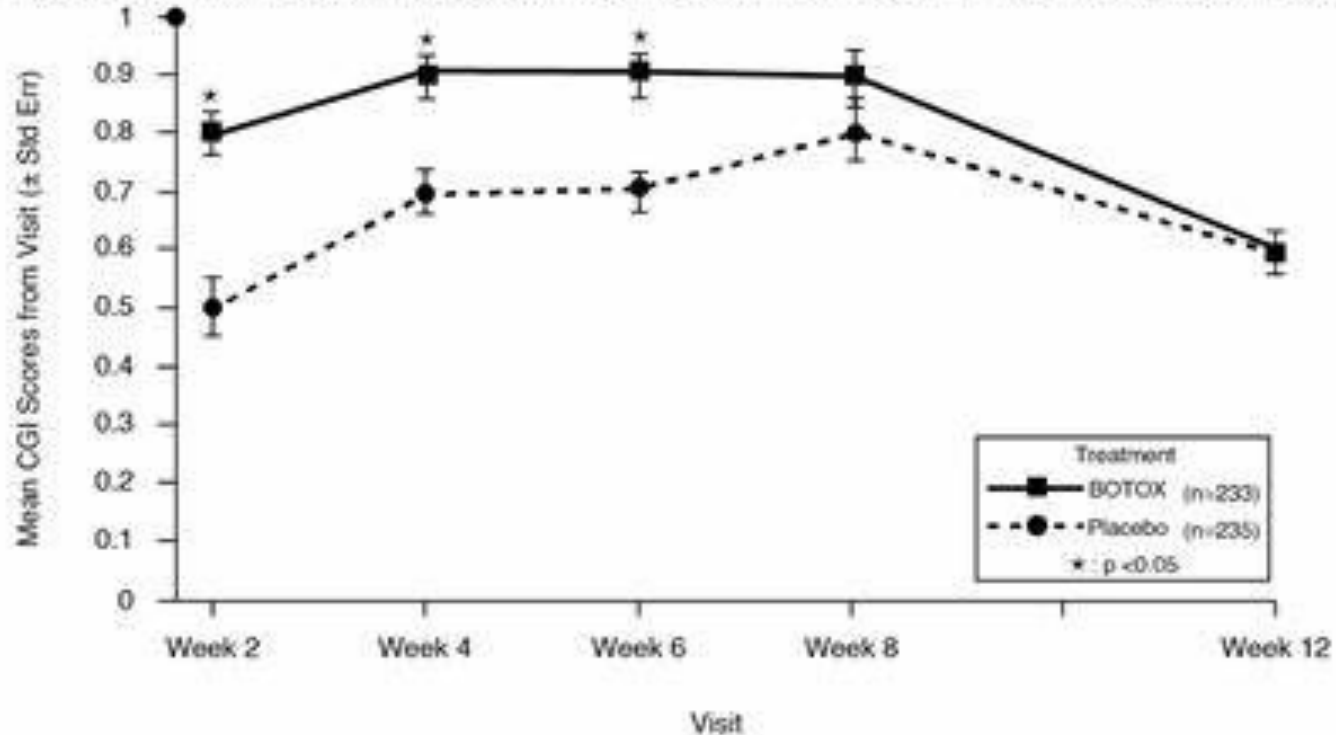


What happens to your body:



How botox works within weeks of it:

Figure 1. Clinical Global Impression by Physician for Study 2 – Mean Scores by Visit.



THE TOP MOST COMMON PLACES TO PLACES BOTOX HAS BE:

- Frown Lines
- Forehead Lines
- Bunny Lines – Lines across the bridge of the nose.
- Crow's Feet – Lines on the upper two thirds of the lateral eye.
- Mentalis Dysfunction – 'Dents' in the chin.
- Brow Lift – Creates a lifting effect of the brow.
- Gummy Smile – Smile with over exposure of the upper teeth and gums.
- Platysma Bands – Aging muscle neck lines/bands

Cost:

- Botox is really not that expensive, it could be for some people.
- It was sold for \$705 million in 2004

Side Effects:

Botulism is a rare but serious illness caused by a toxin that attacks the body's nerves. Some side effects/symptoms of botulism usually start with weakness of the muscles that control the eyes, face, mouth, and throat. This weakness may spread to the neck, arms, torso, and legs. Botulism also can weaken the muscles involved in breathing, which can lead to difficulty breathing and even death. It causes undesired side effect such as mild pain, swelling and bruising.

Before and after botox:



Before



After



Opinion:

I think that botox is really bad for you and it is just so unnecessary.

Sources:

[3D View: 3DDB](#)
[\(rcsb.org\)](#)

[Chemical &](#)
[Engineering News:](#)
[Top](#)
[Pharmaceuticals:](#)
[Botox \(acs.org\)](#)