

NEUROLOGY CENTER OF WICHITA

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BOTOX (Botulinum Toxin A)

Botulinum toxin A, or Botox, is a protein derived from the bacteria *Clostridium Botulinum*. You may recognize the name *botulism*, a fatal food poisoning that paralyzes all muscles, including the muscles we use to breathe. Botulinum toxin A is a synthetic protein that is injected into specific muscle groups to relax spastic muscles, improve muscle balance across joints and help with gait and positioning. Botox is injected into specific muscle groups, because it does not enter the bloodstream, it does not cause the systemic effects like botulism.

Botox was first used in clinical trials in 1987 in the United States. It is FDA approved for treating strabismus and blepharospasm. It is indicated as a treatment alternative in management of dynamic joint deformity secondary to spasticity or dystonia that interferes with function or produces pain. Children and adults with spastic diplegia or spastic hemiplegia usually benefit more from Botox injections than do people with generalized spasticity. Botox injections may improve tone to increase ambulation and range of motion. Surgery to reduce severe spasticity may be delayed with Botox injections. Botox injections are not indicated for treatment of fixed contractures or other neuromuscular diseases.

Botox is injected into specific muscle groups with a needle. It is performed under EMG (Electromyography) guidance. Several injections may be given to provide medication throughout the muscle group. Most patients are able to go home within a few hours. Generally, children are sedated using intranasal or intravenous midazolam (Versed). Patients may have some discomfort during the procedure. Side effects of Botox injections may include redness or tenderness at the injection site, muscle weakness and rarely, antibody formation. Antibody formation is an uncommon adverse effect that can occur after repeated Botox injections.

Improvement in muscle stiffness is usually seen within a few weeks after Botox injection. Your doctor may recommend increasing physical therapy to maximize improvement in muscle tone. Botox injections may be repeated every 3-4 months. Your doctor will determine if enough benefit is seen with Botox to continue with the injections.



Patient Information: Therapeutic Botulinum Toxins

GENERAL INFORMATION

Your doctor may be considering botulinum toxin injections to treat a certain muscle condition. This sheet answers some common questions about botulinum toxins – and summarizes the types of side effects you might experience. For more information, ask your doctor or pharmacist for the complete prescribing information for the product you are receiving.

HOW DO THERAPEUTIC BOTULINUM TOXINS WORK?

The medicine in a botulinum toxin changes the way nerves work. After treatment, the nerves do not send as many messages. The desired results are relaxed muscles and decreased pain. Other effects seen may include decreased sweating and a drier mouth. It may take a while for the full effect to be seen (a few days). Once the nerve is affected, the results usually last for many weeks, even months.

WHAT ARE THERAPEUTIC BOTULINUM TOXINS?

Botulinum toxin products are medicine that comes from a type of bacteria (*Clostridium botulinum*) that has been purified in very low amounts in liquid form. They are FDA-approved and doctors have used these medicines for many years in thousands of patients.

WHAT SHOULD I TELL MY DOCTOR?

Tell your doctor if any of the following apply to you:

- you have problems with nerves or muscles
- you are taking antibiotics
- you have difficulty in swallowing
- you have ever had serious breathing difficulties
- you are pregnant or intend to become pregnant
- you are breastfeeding

HOW IS IT GIVEN?

Botulinum toxins are injected in small doses into the area where the effect is desired. It is injected through a small needle, and sometimes a machine, such as an X-Ray, is used to help find the best place. The doctor may include a local anesthetic to reduce pain on injection.

WHAT CAN I EXPECT?

Most people do not have side effects which trouble them. However, if you develop a problem or have a question, call your doctor. If you feel the problem is severe, such as difficulty swallowing, speaking, or breathing, you should go to an emergency room and tell them you have received botulinum toxin shots. Some problem side effects are not seen until several days after the treatment.

The first day

As with most injections, you may have some pain for a short period anywhere you received an injection. You should have no more than a small amount of pain, bleeding or swelling. If you have problems other than these, call your doctor right away. Since the medicine usually takes a few days for the full effect, you may not feel any different right away.

The first week

You should start to see or feel the effect of the treatment during the first week. The effect should be strongest in the areas where you were given a shot. Local muscle weakness is expected; however, you may also have weakness in nearby muscles. You may have other effects such as dry mouth, dry skin, headache, droopy eyelids, upset stomach, and difficulty swallowing, particularly if you received shots around the throat area. These effects may last for several days or even weeks. Any problem which interferes with your life should be reported to your doctor.

Not all possible side effects are listed here, but the ones above are the most common.

Later weeks

It is important to remember that the treatment is not a cure. The effects usually wear off after several weeks or months. It is common that patients return for re-injection at regular intervals. Your doctor will determine when you should return for re-treatment.

After having had prior injections

Most people can continue to get treatments as needed over time. However, some people feel they do not get the same benefit as the first treatment. If this happens to you, your doctor may change where you get the shot, may increase the amount injected, or may choose to use a different product.

ASSESSING IMPROVEMENT

Before beginning treatment, your doctor will assess what benefits you may expect. If you would like more information on your treatment, talk with your doctor. And schedule a follow-up appointment to review your progress.

YOUR NEXT APPOINTMENT
WITH THE DOCTOR IS: