

Botox Injections for Tight Muscles

Botox has many medical uses, but in the Rehabilitation Clinic it is used to relax tight (spastic or dystonic) muscles in some children.

What is Botox?

Botox is the brand name for botulinum toxin type A. This is a drug that blocks the sending of the nerve signals to muscles. Botox has many medical uses, but in the Rehabilitation Clinic it is used to relax tight (spastic or dystonic) muscles. It has been used safely in children since the early 1990s. There are other types of botulinum toxin including type B, which is called Myobloc, and another type A known as Dysport. But, typically Botox is the type used at Seattle Children's Hospital.

When might Botox help my child?

There are many ways to decrease muscle tightness in a child. The different options depend on how many muscles are affected, how tight they are and the goals we are trying to reach with relaxing the muscles. Botox has been shown to relax the tight muscles in children and adolescents with cerebral palsy, brain injury, stroke and spinal cord injury. You and your doctor will discuss the reasons that Botox might help your child.

Botox can help with tight muscles that may be causing difficulties for your child to move, walk or use their arms or hands. It can also help with tight muscles that:

- Create difficulty with wearing braces or splints
- Make it hard for family to change clothes or diapers
- Limit range of motion in joints

How does Botox work?

Botox is injected into a tight muscle with a small needle. The medicine stops the signal between the nerve and the muscle. Blocking this nerve signal tells the muscle it can relax. This decreases the tightness of the muscle. The medicine usually starts working in 3 to 5 days.

How long does Botox last?

The effect of Botox is temporary and usually lasts from 3 to 6 months. The nerve grows new connections to the muscles so they get tight again. For some kids the benefits last a little longer. The shots may need to be repeated. Your doctor will re-evaluate your child and decide with you if they should be repeated. They will wait at least 3 months between injections.

What are the possible side effects?

Side effects are very uncommon. They are usually mild and do not last very long. They can include local pain, redness or bruising, infection or weakness in the muscle at injection site.

Very, very rarely, Botox can cause side effects that are far away from the injection site and include difficulty swallowing, dry mouth, or body weakness including trouble breathing. You should discuss these side effects with your doctor.

What are other ways to manage my child's tight muscles?

There are many ways to decrease a child's muscle tightness. Different methods your doctor may use include:

- Oral medicines such as baclofen, diazepam (Valium), trihexyphenidyl (Artane) or dopamine (Sinemet)
- Stretching
- Orthotics such as AFOs (ankle foot orthoses) or hand splints
- Positioning
- Orthopedic surgery to lengthen tendons or muscles
- Neurosurgery for placement of an intrathecal baclofen pump or a selective dorsal rhizotomy

How do I schedule the Botox injections?

Botox injections can be done in the clinic setting without any anesthesia. If your child is having multiple shots, you and your doctor may decide to have the injections done in the Outpatient Procedure Center under anesthesia. You can call the Rehabilitation Department to schedule the appointment at 206-987-2180.

What will happen during the Botox injections procedure?

Your doctor will do a brief physical examination to assess the tight muscles and get a brief history to make sure your child is healthy enough to have the injections. Your doctor will review the reasons for doing the injections and the possible side effects.

Botox is a muscle injection similar to an immunization. We recommend using a numbing cream (lidocaine) on the sites that will be injected. The cream is held in place with a bandage or plastic wrap. This cream usually takes about 20 to 30 minutes to work after it is placed on your child.

Your child will sit or lie down on the exam table during the injections. They may need to remove some clothing depending on the muscles that will be injected. You can sit with your child to comfort them. You can also bring a toy with you to clinic that you know might distract your child.

To Learn More

- Rehabilitation Clinic
206-987-2114, option 4
- Ask your child's
healthcare provider
- www.seattlechildrens.org

Free Interpreter Services

- In the hospital, ask
your child's nurse.
- From outside the
hospital, call the
toll-free Family
Interpreting Line
1-866-583-1527. Tell
the interpreter the
name or extension
you need.

A nurse or medical assistant will assist your doctor in gently holding the arm or leg that will be injected. Your doctor may use a muscle stimulator that is attached to the needle. This stimulator allows your doctor to make sure that they are in the muscle. When a stimulator is used it gives a tingling feeling to your child. The numbing cream will help decrease the pain when the needle is placed under the skin. Your child will likely still feel some pressure as the medicine is injected into the muscle.

What do I need to know for after care?

Your child may have a band-aid placed on the injection site. Your doctor will discuss possible restrictions in activity after the injections. However, in general your child will not have any restrictions after the Botox injections.

Your child can typically resume therapy, use of orthotics or splints, and a home stretching program. They can take a bath or go into a pool.

Your doctor will see your child back in clinic in approximately 6 to 8 weeks to evaluate their response to the Botox injections. The decision to do more injections depends on your child's response to the medicine. You will discuss this with your doctor at the follow-up visit.