

Botulinum Toxin and Phenol (Injected Spasticity Medications)

What Is Botulinum Toxin? What Is Phenol?

Botulinum toxin A is a protein injected directly into muscles as a medication. Phenol is a chemical injection that works similarly to botulinum toxin. Botulinum toxin injections are often more effective in smaller muscles and phenol might be more effective in larger muscles—sometimes they are used together.

Both are treatments for muscle spasticity—overly tight muscles caused by disrupted communication among the brain, spinal cord and peripheral nerves.

Injected spasticity medication blocks messages sent from nerves to the muscles that tell the muscles to contract. Spasticity is reduced when these messages are blocked, increasing comfort and improving function.



Who Benefits from Injected Spasticity Medication?

If your child is too young for surgery or only has spasticity in one or two muscles, injected spasticity medication might be part of your treatment plan. This treatment might not be suitable if your child has severe, widespread muscle spasticity or permanent muscle contractures that have become rigid.

Botulinum toxin or phenol might not eliminate the need for surgery or for generalized treatments of spasticity. The medication can allow you to delay a surgical procedure until your child is older.

Injected spasticity medication often helps children, teens and adults whose spasticity is associated with the following conditions:

Cerebral Palsy

If your child has **cerebral palsy** and receives injected medications, their braces might fit better and their ability to move might improve. After the medication causes spastic muscles to relax, physical or occupational therapists might work with your child to stretch the muscles, helping to limit contractures and bone deformities. Therapists

might also help practice functional movements.

After an injection, your child might use casts for several weeks to give relaxed spastic muscles a constant stretch, or braces (also known as orthoses) to continue stretching muscles.

Brain Injuries

Injected medication combined with **physical therapy**, **occupational therapy** and casting, can sometimes limit muscle contractures that form after a **brain injury**. Medication might also help relax muscles and improve your child's ability to walk, grasp things, extend arms or perform other functions.

Spinal Cord Injuries

If your child has a **spinal cord injury**, some messages between the brain and the spinal cord might not get through. Injected medication might make it easier for your child to perform some movements and feel more comfortable.

What to Expect

Injected spasticity medication is usually given during a short clinic visit. The effect of the injected medication will wear off over time, so repeat injections might be necessary—there are no permanent results or long-term side effects of botulinum toxin or phenol.

Botulinum Toxin Injection

This injection typically takes effect in three to seven days and lasts for three to six months. Your child might receive botulinum toxin injections in several muscles during one visit.

There are virtually no side effects from the medication itself—as with any injection, your child might feel a sting or a pinch. To help make your child more comfortable during the botulinum toxin procedure, we might offer:

- Topical creams or sprays that numb the skin where the injection will be made.
- Medicines to reduce anxiety.
- **Child life** specialists who provide distractions, diversions or relaxation techniques.
- Nitrous oxide as anesthesia.

After botulinum toxin injections, your child can likely return to normal activities. Your child might follow an adjusted physical therapy program or wear a cast or splint to help stretch the joint or muscles after receiving injections.

Phenol Injection

Phenol typically takes effect immediately and lasts four to 12 months. This injection is placed directly on a nerve—which requires finding the nerves to be blocked. Your child will be sedated while a specialist uses mild electrical impulses from a small battery-operated box to find the nerves, which can take up to 30 minutes.

Possible side effects of a phenol injection include temporary swelling, soreness or numbness at the injection site.

After phenol injections, your child might require rest and gentle stretching for one to two weeks following the procedure.

How Injected Spasticity Medication Helps

Results from botulinum toxin or phenol injections differ depending on your child's medical condition and the severity of the muscle spasticity. There are many common benefits that can follow spasticity medication injections, including:

- Improved range of motion.
- Greater ease in stretching.
- Improved tolerance for wearing braces.
- Improved coordination.
- Changes in walking movements.

Integrated Care

Children, teens and adults who have muscle spasticity need a comprehensive treatment plan that involves a team of experts. At Gillette Children's Specialty Healthcare botulinum toxin and phenol injections might be part of your child's treatment to manage spasticity associated with **cerebral palsy** or other complex conditions.

When you come to Gillette, you'll have access to an integrated team that will help you navigate the services you need. In addition to injected medication, your child's treatment plan might include working with specialists in:

- **Gait and motion analysis.**
- **Neurosurgery.**
- **Orthopedics.**
- **Rehabilitation medicine.**
- **Rehabilitation therapies.**
- **Spasticity evaluation.**

Make An Appointment **651-290-8707** Refer a Patient **651-325-2200**

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at **651-229-3890**.