

Having Botulinum toxin injection for muscle spasticity

Neurology Rehabilitation

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Information for Patients

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What is Botulinum toxin?

Botulinum toxin is a substance that can help reduce muscle stiffness or tone. It is a protein produced by bacteria (a neurotoxin) that interferes with the way the nerves work to reduce muscle contraction. It works by decreasing nerve impulses to the injected muscles. The effect is temporary and the muscle tone or stiffness will return when its action is finished.

There are various commercial preparations of Botulinum toxin injections with different brand names. Not all products treat the same problems. People casually use the term “Botox” to describe all of these products, however Botox is a registered trademark for one product made by one company.

Botulinum toxin can be used for conditions like excessive sweating, bladder problems, cosmetic reasons, long-term migraines or muscle spasms. This leaflet only covers the use of Botulinum toxin for muscle spasticity.

What is muscle spasticity?

Muscle spasticity is a tightening of muscles that you can't control (involuntary contraction). This can cause pain, stiffness and difficulty moving the joints. Any neurological illness may lead to spasticity. Some common causes are stroke, brain injury and multiple sclerosis (MS).

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What are the benefits of having Botulinum toxin injections for muscle spasticity?

This will be discussed with you before the treatment begins and may include the following:

- Can help you with your personal care due to increased flexibility of treated limb or reduce discomfort during moving and handling.
- Can reduce muscle spasms.
- May improve positioning of your limbs.
- May reduce pain caused by muscle spasticity.

Is Botulinum toxin right for me?

Botulinum toxin injection is not suitable for you if you:

- are pregnant or breastfeeding.
- have an infection near the injection site.
- have a condition/ disorder which causes general muscle weakness (like myasthenia gravis, with changing muscle weakness).
- are very unwell with an infection that isn't under control.
- have widespread or general spasticity involving many parts of your body.

You may not be able to have Botulinum toxin injections if you are taking blood thinning medication like warfarin or rivaroxaban or apixaban. The risks and benefits to you would need to be discussed in this case.

What can I expect from this treatment?

It can take up to 2 weeks after having the injections before you notice a difference.

The effects can last up to 6 months though it usually wears off after 3 to 4 months in many cases. Treatment can be repeated after 3 to 4 months, if the goals for treatment continue to be met.

The amount or 'dose' used varies according to what you need, and may change over time.

What are the side effects?

Common side effects include:

- Flu-like symptoms such as headache, fever and feeling tired. These are minor and do not last long.
- Muscle weakness usually in the injected muscles, but may rarely affect other nearby muscles due to spread of Botulinum toxin.

- If injections are given into neck muscles, 10% of patients have difficulty swallowing (dysphagia) but this side effect doesn't last long.

Other side effects include:

- Reaction at injection site including pain and collection of blood (hematoma formation). This is more likely if you are taking blood thinning medication like warfarin.
- Dry mouth, difficulty sleeping (insomnia), and joint pain.

Rare side effects:

- Antibody formation to Botulinum toxin. This means that the injection may no longer work for you.

Very rare side effects:

- Due to weakness of swallowing, material from the mouth or stomach may enter lungs (aspiration) leading to a chest infection.
- A significant swallowing disorder where you would need tube feeding.
- Severe muscle weakness.
- Death is very rare and happens in less than 1 in 10,000 patients.
- Breathing difficulties.

What aftercare advice do I need to follow?

To get the most benefit from the injection, you should carry out daily stretching of the injected muscles or use a splint to stretch them. Some patients may be referred for physiotherapy, a home exercise programme, or occupational therapy so that a suitable splint can be provided.

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