

FREQUENTLY ASKED QUESTIONS

What is Botulinum toxin?

Botulinum toxin is a substance produced by a bacterium called *Clostridium botulinum*. It has been purified under very strictly controlled conditions.

How does it work?

The muscles you use for chewing food and talking sometimes work overtime (such as when people grind their teeth at night) causing facial and/or jaw joint pain.

Botulinum toxin is injected in extremely small amounts into affected muscles. The exact way it works is quite complicated, but the end result is that it blocks nerve impulses to relax the muscle and relieve the spasm. Relaxing the jaw closing muscles can also provide relief for the jaw joints by decreasing the muscular loading of these joints.

I've heard of something called botulism. I understand it's a very serious illness. Is Botulinum toxin related to botulism?

This is a very important question. The active ingredient in Botulinum toxin is the same one that, in much larger amounts, can cause botulism poisoning, although rare, can occur if a person eats food that is contaminated with the bacterium called *Clostridium botulinum*. If this happens, large amounts of the toxin are swallowed, then absorbed into the bloodstream and circulated throughout the body. This can affect the breathing muscles leading to respiratory paralysis, and sometimes death.

However, Botulinum toxin is injected directly into specific muscles, and only in extremely small doses, to relieve spasm and suffering safely. Because the doctor ensures that it is not injected into the bloodstream, other parts, of the body and functions are unaffected.

Many drugs in common use would be harmful if given in large enough doses or in such a way as to affect the entire body. Given in the appropriate way in the right amounts, they are valuable allies in fighting illness and suffering. Clinical studies over more than 15 years have shown the Botulinum toxin is effective and produces few side effects.

Botulinum toxin therapy for the treatment of jaw joint and related problems is experimental. The drug is proven safe. However, its usefulness for this condition is as yet scientifically unproven and under investigation by us.

How do I know my doctor won't give me too much Botulinum toxin?

Production of Botulinum toxin is carefully controlled at every stage to be sure it is safe for medical use. Your doctor has been specially trained to use it safely and to manage any problems that may occur. Appropriate starting doses have already been determined for the facial musculature in humans.

Are there any patients who should not receive Botulinum toxin?

Botulinum toxin should not be given to anyone who has reacted badly in the past to any of its ingredients. Your doctor will ask you about this. It shouldn't be used if there is infection or inflammation in the part of the body where the injection is to be given. Pregnant or nursing women should not be treated with Botulinum toxin, because it is not known if it might harm the baby.

How is it given?

Botulinum toxin comes in glass vials containing a small amount of crystals. A special solution containing water and a small amount of salt is added just before use to make it ready for injection. The drug is injected into the affected muscle(s), using a sterile, disposable syringe with a fine tip needle.

The doctor may use a technique called electromyography (EMG) to be sure that the needle is in the correct muscle. Affected muscles produce extra electrical activity which electromyography can detect. The doctor will use a special needle connected to an EMG machine that guides him/her to the right position for the injection. In some disorders in which many muscles are involved, several injections may be required.

Does the injection hurt?

Botulinum toxin itself does not cause irritation or inflammation when it is injected. Patients occasionally complain briefly of discomfort or pain at the injection site.

Are there any side effects?

Side effects may occur, but they are usually mild, don't last long and can be treated. Serious side effects are uncommon, and no long-term complications have been reported. Side effects vary, depending on where Botulinum toxin is injected and for what purpose. Your doctor can tell you which ones might apply to you. However, most patients find that the relief of symptoms far outweighs any discomfort the drug may cause.

Does Botulinum toxin interact with other drugs or vaccines?

It is always important to let your doctor know if you are taking any other drugs or planning to get any vaccines. It is not recommended to get any vaccines within 2 weeks of receiving Botox to reduce the risk of any cross reactivity. Certain antibiotics or other drugs that interfere with nerve impulses to muscles may increase the effect of Botulinum toxin. However, patients can usually be treated with Botulinum toxin regardless of other drugs they may be taking.

How long does Botulinum toxin take to work?

Effects are usually noticed within 7-14 days.

Will Botulinum toxin cure me?

No, it is not a cure. However, Botulinum toxin offers the best hope yet for safe, effective and long-lasting relief of pain and spasm.

How long does the effect of the injection last?

For most patients, a single treatment with Botulinum toxin relieves symptoms for one or more months. Individual response varies depending on the severity of the problem and the dosage used.

Does that mean I'll need more injections?

Yes, most likely. Except in a few conditions, the injected muscles eventually get over the drug's effects. Repeated injections must be given to maintain the benefit over a long period of time. The treatment can be repeated for as long as it is required. Most patients will need injections about every three months. The exact timing is determined by the patient's sense of need and the doctor's estimation of recovery of muscle function.

Will additional injections continue to be effective?

Given in appropriate doses at appropriate intervals, repeated treatments usually remain effective for a long period of time.

What benefits can I expect of Botulinum toxin therapy?

Botulinum toxin relieves symptoms effectively. Pain is reduced and joint movement is often restored to "normal". Botulinum toxin can relieve the chronic pain many patients have suffered from for years. Treatment with Botulinum toxin is simple. It sometimes helps avoid the risks, expense and inconvenience of hospital admission and surgery. Time lost from work is reduced.

Botulinum toxin treatment can result in greatly improved quality of life, even for patients who have suffered for many years with no relief from other treatments.

Are there any disadvantages?

The only disadvantages are the need for repeated injections and the occurrence of side effects in some patients. The risks have been listed on your consent form.

If you would like more information:

Your doctor would be happy to discuss any aspects of Botulinum toxin therapy with you. Please do not hesitate to ask questions and feel free to bring someone with you when you come to discuss therapy with your doctor.