



USE OF BOTULINUM NEUROTOXIN INJECTIONS TO TREAT AUTONOMIC DISORDERS AND PAIN

People often associate botulinum neurotoxin (BoNT) with the treatment of facial wrinkles or frown lines. Since its introduction 28 years ago, neurologists and other physicians have used BoNT safely to treat many disorders. This fact sheet will help you and your family understand the use of BoNT for the treatment of increased sweating or disturbed bladder function, and some forms of pain.

Neurologists from the American Academy of Neurology are doctors who identify and treat diseases of the brain and nervous system. The following evidence-based information* is provided by experts in neurology who carefully reviewed all available scientific studies on how well BoNT helps treat autonomic disorders and pain.

What is botulinum neurotoxin (BoNT) and how does it work?

BoNT is a drug made by bacteria that causes some forms of food poisoning. Neurologists inject small and safe doses of BoNT into specific areas of the body or muscles to block nerve signals that cause muscle spasms or pain.

Will BoNT injections control my excessive underarm sweating?

Experts found strong evidence that BoNT is safe and successful in treating excessive underarm sweating. In clinical studies, BoNT injections reduced sweat production by at least 50 percent.

Will BoNT injections control my excessive palm sweating?

There is good evidence that BoNT is probably safe and effective to control excessive palm sweating. Clinical studies showed a significant improvement in hand sweating with no weakness of small hand muscles after injection.

Will BoNT control drooling related to Parkinson disease or ALS?

BoNT injections probably help control drooling in patients with these conditions.

I have an overactive bladder. Would BoNT be helpful in controlling this problem?

Strong evidence supports that BoNT is a safe treatment option for patients with overactive bladder associated with neurologic disorders such as spinal cord injury or multiple sclerosis. You should benefit from reduced incontinence episodes and an improved quality of life.

I had surgery on my salivary gland and am now experiencing sweating on my forehead, face, scalp, and neck after eating. Will BoNT help this condition?

There is weak evidence that BoNT injections might help patients who have increased sweating around the cheek after a salivary gland has been removed. Often, this sweating condition (also known as gustatory sweating) happens soon after eating. Although the evidence is weak because more informative studies are lacking, it is probably the most effective way to treat this problem.

Will BoNT injections relieve my chronic tension headache or episodic migraines?

Experts found good evidence that BoNT probably does not help end chronic tension-type headaches or decrease the frequency of episodic migraines any more than a placebo. It is possible that further studies will clarify if there might be any role for BoNT in managing headaches.

Will BoNT injections relieve my daily headaches?

Doctors cannot answer this question based on the current scientific studies. There is not enough evidence on the effectiveness for treatment of chronic daily headache with BoNT injections.

Can BoNT injections relieve my low back pain?

The origin of back pain is often difficult to determine. However, BoNT might help chronic low back pain. Only weak evidence supports this, though.

What are the risks or side effects for BoNT injections?

BoNT was introduced 28 years ago. When used appropriately, its risks are low and adverse side effects are rare. The most common side effect is mild muscle weakness. Other side effects include pain at the injection site, dry mouth, urine retention, and flu-like symptoms. All side effects generally go away quickly.

*After the experts review all of the published research studies, they describe the strength of the evidence supporting each recommendation:

Strong evidence = more than one high-quality scientific study

Good evidence = at least one high-quality scientific study or two or more studies of a lesser quality

Weak evidence = the studies, while supportive, are weak in design or strength of the findings

Not enough evidence = either different studies have come to conflicting results or there are no studies of reasonable quality

This is an educational service of the American Academy of Neurology (AAN). It is designed to provide members with evidence-based guideline recommendations to assist with decision-making in patient care. It is based on an assessment of current scientific and clinical information and is not intended to exclude any reasonable alternative methodologies. The AAN recognizes that specific patient care decisions are the prerogative of the patient and the physicians caring for the patient, based on the circumstances involved. Physicians are encouraged to review carefully the full AAN guidelines so they understand all recommendations associated with care of their patients.

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