

Blepharospasm and Hemifacial Spasm

Blepharospasm and hemifacial spasm are disorders in which there is involuntary closure, spasm and difficulty opening of the eyelids. Twitching and tics of the eyelid are very common, particularly with tiredness or stress, but are not considered by doctors as blepharospasm or hemifacial spasm.

Blepharospasm (also known as Benign Essential Blepharospasm)

Blepharospasm is the involuntary closure of the eyelid. This usually takes the form of spasms as the person tries to open the eyelid, fighting against the involuntary closure (uncontrollable forcible blinking). Benign essential blepharospasm is the closure of both eyes and almost always has no apparent cause, and is almost never associated with lesions in the brain. Men and women of any age can be affected but middle-aged and older women appear to be more susceptible.

Blepharospasm can be a debilitating condition. In severe cases the person is rendered legally blind, because the muscular spasms cause the eyelids to be closed most of the time. Blepharospasm may cause people to give up hobbies, driving and socialising. In some countries, such as the United Kingdom you are not allowed to drive until you have informed the vehicle licensing authority about your blepharospasm and obtained permission to drive.

Causes of blepharospasm

The cause of blepharospasm is unknown, but an abnormality in the brain's nerve control of the eyelid muscles is thought to be involved. One theory suggests that chemical messages fail to pass from one nerve cell to another in the brain's movement control centres (the basal ganglia, located in the base of the brain).

Blepharospasm can be triggered by eye irritation or dry eye and it is very important that these are examined by your doctor and treated if necessary. Occasionally, more than one family member is affected by blepharospasm, which

suggests there may be genetic factor involved. Very occasionally blepharospasm is associated with other conditions such as Tourette's syndrome.

Certain drugs such as antipsychotic medications and drugs to treat Parkinson's disease can cause similar symptoms to blepharospasm.

Hemifacial spasm

Hemifacial spasm presents as twitching of one or a few of the muscles of facial expression on one side of the face. It is believed to be caused by irritation of the nerve that supplies these muscles somewhere along its path from the brainstem to the muscles themselves.

In many cases a specific cause is not identified but occasionally can be due to serious medical conditions. Therefore MRI or CT scanning of the head is usually done to investigate hemifacial spasm before treatment is started.

Although it only affects one side, it can still be debilitating and prevent work, impede socialising and the normal activities of daily living

Symptoms of Blepharospasm and Hemifacial Spasm

Individuals with blepharospasm or hemifacial spasm are likely to blink uncontrollably, squint, twitch or squeeze their eye(s). Usually the spasms become increasingly more severe and frequent over time with spasms sometimes starting to develop in the night time and sometimes forcing the eyelids shut for hours at a time. It is sometimes provoked by specific triggers such as bright lights or tiredness, but often occurs without any often stimulus.

Oromandibular dystonia (Meige's syndrome)

Oromandibular dystonia (Meige's syndrome) is a very severe condition of unknown cause in which there is blepharospasm as well involuntary and repetitive movements of the mouth and tongue. The individual's mouth may open and close, their lips may purse and their tongue may poke in and out.

Treatment of Blepharospasm and Hemifacial Spasm

There is no cure for these conditions, but there are effective treatments. They include:

Simple Measures

- Stress management: symptoms tend to worsen at times of stress. Therefore techniques and strategies for minimising stress can be very useful.
- Reducing eye irritation: ensuring the eyes do not become dry, itchy, gritty, painful or have ingrowing eyelashes is very important.
- Distraction techniques: some people develop ways of distracting their brain, such as singing, reading out loud or massaging certain pressure points on their body.

Botulinum Toxin

What is Botulinum Toxin?

Botulinum toxin (“Botox”) is made by the bacteria *Clostridium Botulinum*. The toxin disrupts nerve messages to muscles and causes temporary (a few weeks or months) paralysis in muscles that it is injected into or near to. This can be a very effective treatment for unwanted contractions of the muscles around the eye that occur in conditions such as blepharospasm and hemifacial spasm. This information sheet should be read in conjunction with the blepharospasm and hemifacial spasm information sheet.

How will botulinum toxin be injected?

The skin is usually cooled prior with an icepack to make the skin a little numb. Fine needles, in conjunction with only small amounts of medication needed result in relatively painless injections.

The placement and number of injections needed depends on the condition being treated and the individual’s previous response to treatment. For the treatment of Blepharospasm, generally, multiple injections are given both above and below the eye (typically 4-8 injection points).

The treatment for hemifacial spasm and lid opening apraxia differ only in their number and location. Your doctor will be able to discuss with you the planned approach to your treatment.

Will it work straight away?

It takes between one and four days for the paralysis to begin to work and the full effect occurs by about one week. The treatment usually lasts up to four months but occasionally longer. The timing of repeat injections is tailored to the individual. After many injections sessions, some patients find they need repeat injections more frequently.

Are the injections effective?

Botulinum Toxin injections work for approximately 90 per cent of people with blepharospasm.

What are some possible side effects?

The common but almost always temporary side effects are:

- Dry eyes, which can cause discomfort or intermittent blurred vision. Artificial tear drops can be used to improve this symptom
- Headache: less than 10%
- Drooping upper eyelids (ptosis): approx 2-7%. One usually has to wait for the botulinum toxin treatment to wear off for this to recover.
- Double vision: 1% or less. This usually recovers after a week or two, but may last as long as the botulinum toxin treatment lasts.

Is it safe?

Botulinum Toxin injections have been used for over 20 years. There are no known long term side effects or diseases caused by the use of Botulinum toxin.

When should I not have Botulinum Toxin injections?

Individuals with allergy to any component of the preparation cannot have injections. Patients with active infectious conjunctivitis should not receive injections until it has been treated or resolved. If you have any concern over whether or not botulinum toxin

is suitable for you it is essential that you discuss it with your doctor. Specific situations such as pregnancy and breast-feeding must be decided upon on a case-by-case basis.

What should I do after I have my treatment?

You can continue your day as you normally would after the injections. Normal facial expressions and activities such as reading or watching television are perfectly ok. It is advisable to avoid strenuous exercise and facial massage or treatments for at least 24 hours after as this can increase the risk of eyelid droop. You may shower, bathe or apply makeup afterwards.

Medications

Medications such as lithium and diazepam (valium) are occasionally used but the success rate varies and the side effects may not be acceptable.

Surgery

Myectomy is an operation involving removal of some or all of the muscle that surrounds the eyelid and eyebrow. This procedure is sometimes combined with an operation to lift up the eyelids. Surgery is only used very occasionally, when botulinum toxin therapy has been unsuccessful. Repeat surgery is sometimes needed, but it can be successful in up to 80% of people.

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