

Patient information

The use of Botulinum toxin injections in the treatment of chronic spinal pain, headache and migraines

What is botulinum toxin ?

Botulinum toxin is a purified protein that is derived from the infective agent called *Clostridium botulinum*. There are various different types of Botulinum toxins each with their own specific action. The Pain Clinic uses two types of botulinum toxin type A, Allergan and Dysport (Ipsen). It is a safe and effective therapy and has been used for more than 10 years.

It is important that you inform the doctor in the Pain Clinic which medications you are taking before receiving botulinum toxin injections, particularly aminoglycoside antibiotics and drugs affecting neuromuscular transmission. Please also inform the Pain Clinic doctor if you suffer from any known neurological problems.

What is it used for?

The pain types, which are suitable for this treatment, include those where muscle spasm and tenderness are clearly definable, for example, in the regions of the head, neck and back. An injection of local anaesthetic and steroid is injected into the area initially and if this works but wears off, a trial of botulinum toxin may be appropriate. The use of botulinum toxin in chronic pain as a result of muscle spasm is termed 'unlicensed'. This means that this is not the normal use for the medicine; however in this case research has shown that this group of medicines can be effective in treating this condition.

How does botulinum toxin work?

Botulinum toxin works by binding to the nerve-muscle junction, thereby blocking the nerves that cause muscle contraction. The muscle then relaxes resulting in reduced resting tone and response to nerve stimulation. This effect usually occurs around two to four weeks after the injection. The nerve is able to stimulate the muscle again within two months or so. The effect of the treatment on the pain may last much longer even, as long as a year or more.

How is botulinum toxin given ?

Botulinum toxin is injected into the affected muscles. Your doctor will determine exactly which muscles require injecting. This procedure is performed either in the Pain Clinic or in the X-Ray department.

What are the benefits of botulinum toxin?

By injecting the muscle/s that are in spasm, muscle spasm is stopped or is greatly reduced. Consequently the symptoms you have experienced, for example, pain is diminished. This treatment is **not** curative, however, repeated injections can be given and may be offered to you.

How safe are the injections?

The dose of botulinum toxin required for effect is minute. Around 5% of an injected dose will spread from the local site of injection through the body, causing some patients (12%) to feel washed out or “fluey” for a week or two. Rarely, swallowing difficulties or problems with voice production have been reported if the toxin is injected near the muscles controlling voice or swallowing, or if larger doses are used. Please seek immediate medical attention if swallowing, speech or breathing difficulties arise. 1% of patients experience an increase in pain for approximately a month; this always improves and does not affect the response of the botulinum toxin.

Obviously, performing *any* injection does carry some risk; hence this procedure should be discussed with, and performed by, a doctor who specialises in this type of treatment for pain.

Does the injection have to be repeated and, if so, how often?

The simple answer is 'yes', as long as the first injection was beneficial and significant side effects or allergic reaction did not occur. As previously mentioned, the effect of the injection is not permanent, but if a cycle of pain and spasm is broken, the relief may last a very long time – a year or more once an adequate dose has been given. This often requires two injections separated by a period of 1-3 months. The effect of Botulinum Toxin seems to be assisted by physical therapy, acupuncture or intramuscular stimulation to the area afterwards.

I have had (a) many epidurals, (b) facet joint blocks (c) back surgery (d) fusion surgery for my spinal pain: could these botulinum toxin injections help me?

If the pain is localised and, particularly, if you have responded to the simple local anaesthetic and steroid injections indicated above, your doctor may consider that botulinum toxin is appropriate. As botulinum toxin injections tend not to bring permanent relief, surgery or interventional pain procedures may be offered first since these may bring longer lasting benefits. However as botulinum toxin injections have few side effects in the doses used for pain (and as evidence for their effectiveness accumulates), they are more likely to be offered before the major procedures in the future.

I have been told I have fibromyalgia and have widespread muscle pain all over my body: will botulinum toxin help me?

The few studies done into fibromyalgia suggest that botulinum toxin treatment has a lower success rate here. Fibromyalgia is considered to be a problem in the way that the nervous system copes with pain; in such cases, there may not be sufficient muscle spasm to treat. Having said that, if the condition started after an acute injury such as whiplash, the original site of injury may respond and the other, more widespread symptoms may then reduce.

I have intractable headaches/migraines associated with neck pain: can these injections help me?

Treatment of head and neck pain, including migraines and whiplash type neck pains, with botulinum toxin is one of the newer of this treatment. The results of treatment of intractable head and neck pain, including cervicogenic headaches and migraines seem to be very good, better, in fact, than the results for back pain. This may reflect the smaller volume of muscle that needs to be treated for neck pain compared to

back pain. The effectiveness of this type of treatment suggests that muscle spasm and pain may contribute to some recurrent headaches and migraines.

I have heard that this drug is used for treating wrinkles?

The use of minute doses of botulinum toxin in treating wrinkles has shown to be very effective, but again, this treatment is not permanent. Interestingly the site of injections of wrinkles, especially on the forehead, often corresponds to sites where headaches are felt and some patients noted that their wrinkles as well as their headaches improved with treatment!

Are there any contraindications?

Botulinum toxin should not be given in pregnancy, disorders of neuromuscular transmission, including myasthenia gravis, or Eaton Lambert syndrome. Caution is advised if patients consider themselves to be significantly affected by ME, although there is no evidence that it affects the natural history of this condition.

Additional information

The information in this leaflet is not intended to replace your doctor's advice. If you require more information or have any questions, please speak to your doctor or contact one of the following:

Pain Clinic	Tel: 01284 713330
Medical Treatment Unit	Tel: 01284 712986 / 712967
Waiting list enquiries	Tel: 01284 712980

If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo)
<https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust>



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