

Botox for Chronic Migraine

Kurt Kuhlman, DO
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Headache prevalence: About 20% of women and 8% of men have migraines. Prevalence is highest between 25 to 55 years of age. About 5% of women have greater than 15 headache days per month.

Migraine headache: A condition marked by recurring moderate to severe headaches that typically last between 4 and 72 hours, are associated with nausea and vomiting, sensitivity to light and sound, have a pulsating quality and are aggravated by physical activity. An aura such as seeing visual flashes, numbness, trouble thinking or speech problems can occur before the headache starts, and is present in about 20% of migraines.

Tension headache: A mild to moderate headache that typically encompasses the entire head with contraction of the neck and scalp muscles.

Dilemmas in diagnosing migraine: Neck pain (which is typically seen with a tension headache) is also present in 75% of people with migraines. Sinus symptoms such as sinus pain and pressure (80%), nasal congestion (60%), and runny nose and watery eyes (40%) are very common with migraines. In fact, most "sinus headaches" are actually migraines.

Common headache triggers: Irregular meals, irregular caffeine, alcohol, MSG, chocolate, processed meat, menstrual cycle, stress, strong smells, sunlight, sexual activity, air travel, inappropriate sleep (less than 7 hours or greater than 10 hours), insufficient physical exercise, mood disorders.

Nonmedication headache treatments: Massage, stretching, meditation, yoga, relaxation techniques, acupuncture, dry needling, heat and cold modalities, hypnosis, physical therapy, chiropractic, dietary supplements, biofeedback, stress management, headache devices, sphenopalatine ganglion blocks. **I believe proper sleep, diet and exercise and a positive mood are the most effective nonpharmacologic treatments of chronic migraine.**

Nonprescription medication treatments: Magnesium 400 mg daily, riboflavin 400 mg daily, Co-Q10 300 to 1200 mg daily, melatonin 3 mg at bedtime and butterbur 75 mg twice daily.

Abortive (makes the headache go away after it has already started) over-the-counter headache medications: Aspirin, Tylenol, Aleve, ibuprofen, Excedrin Migraine may be helpful. Rebound headaches are common with these medications.

Migraine specific abortive headache medications: Triptans such as sumatriptan, Imitrex, Maxalt and Zomig are effective in relieving acute migraine headaches. Calcitonin gene related peptide receptor antagonist (Ubrelyv and Nurtec) are newer migraine specific medications that are effective with minimal side effects. Oral medication such as Reyvow, Cambia and Zipsor and nasal sprays such as Tosymra and Trudhesa may be helpful. For a severe migraine, we usually recommend Zembrace (sumatriptan 3 mg) autoinjection. If you have a severe migraine headache during our office hours, we can give you injections that alleviate over 90% of migraines.

Prophylactic (prevents the headache from occurring in the first place) migraine medications: Consider a prophylactic migraine medication if your migraines are interfering with your daily routine, you have over two severe headaches per week, or you have severe associated symptoms such as weakness, numbness or prolonged auras. Common preventative migraine headache medications include Depakote, Valproate, Amitriptyline, Propranolol, Topamax (Trokendi is newer form), Prozac, gabapentin, verapamil, Qulipta, Prozac, Cymbalta, Lyrica, Zonisamide.

Monoclonal antibodies (Aimovig, Ajovy, Emgality): Monoclonal antibodies block the effect of calcitonin gene related peptide (CGRP) and significantly decrease headaches for 1 to 3 months. These are self-administered monthly injections for the prevention of migraines. They are most commonly used with patients who have episodic migraines of less **than 15 headache days per month**.

Botox mechanism of action: Botox blocks the release of acetylcholine at the nerve terminal for 3 to 6 months. This can cause temporary weakness of muscle. In the early 2000's, Botox was being studied to prevent chronic headaches by injecting into the forehead muscles. Interestingly, the researchers noted that after a person was injected with Botox, the wrinkles in their forehead disappeared. The FDA then approved Botox to be injected for the cosmetic treatment of facial wrinkles in 2002, but it was not until 2010 that the FDA approved Botox for the treatment of chronic migraine.

Clinical studies of Botox for chronic migraine: Multiple studies show that Botox injected into specific muscles along the head, neck and shoulders will significantly decrease chronic tension headaches and chronic migraine headaches for 2 to 3 months. The second and third injections performed 3 and 6 months later will be even more helpful. Botox can be safely injected indefinitely every few months. Side effects are minimal and include temporary pain and muscle weakness and occasionally a droopy brow or eyelid that is usually the result of injector error.

Botox migraine insurance approval: Because Botox is expensive, there is very specific criteria needed to get Botox approved for treatment of chronic migraine. The patient must have **at least 15 or more headache days per month** with half of these being migraine (the other half tension headaches). The patient must have **tried and failed multiple medications** including antidepressants (e.g. Cymbalta, Prozac, amitriptyline), antiseizure medications (e.g. Topamax, gabapentin, Lyrica) and antihypertensive medications (e.g. Inderal), as well as migraine specific abortive medications (e.g. sumatriptan, Ubrelvy, Nurtec).

Botox chronic migraine protocol: 31 specific sites along the head and neck are injected with a very small 30-gauge half inch needle (see diagram). Dr. Kuhlman, Kathy and Jodi can do this in under 2 minutes. There is Botox remaining that we will inject into areas that are most beneficial to the patient. We are skilled in both medical and cosmetic Botox. Therefore, our patients will have significantly decreased headaches with optimal cosmetic outcome.

Ultimate goal of Botox for chronic migraine: You should expect to see about 40 to 50% reduction in headaches after the first injection and over 80% after the third injection performed 6 months later. Your headaches will gradually start to return the last week or two before your repeat injections are given. Most patients significantly reduce their headache medications.

Diagram:

