

women's **Running**



What Runners Need to Know About Botox

Botox isn't just for fine lines and wrinkles. Whole-body benefits are being discovered with this popular neuromodulator.

Botox and its cohorts (Dysport, Jeuveau, and Xeomin are the other FDA-approved neuromodulators) are in a sort of renaissance in the health and wellness industry and offer many advantages for runners. The drug was originally approved by the FDA to treat crossed-eyes (strabismus) in 1989. But patients noticed smoother skin as a pleasant side effect to the treatment. In 2002 the FDA approved the use of onabotulinumtoxinA (brand name, Botox) injection for use in reducing frown lines.

The use of Botox has been studied and finessed to the point where frozen faces are no longer the motif, as was the case in the early 2000's. To date, research on its safety, effectiveness, and various uses have been published in over 500 peer-reviewed scientific journals. In 2017, a Swiss army knife of needles graced [the cover of Time Magazine](#) with the headline, "How Botox Became the Drug That's Treating Everything." Every year, it seems, scientists are discovering new uses for the historic drug.

That's a good thing for runners who experience chronic pain, injuries, or just want to slow the effects of aging.

Botox for Cosmetic Use

Unfortunately, runners may be more prone to seeing the wear and tear of life in the form of wrinkles and fine lines on the face. Plastic surgeon [Dr. Lara Devgan](#), a runner herself, describes three reasons why: Spending a lot of time exposed to the elements while running outdoors; potentially the movement of facial tissue up and down causing micro-traumas that add up; and runners are less likely to have subcutaneous fat in the face that preserves the youthful look.

But definitely don't let that stop you from getting out and running. "While we focus on some of the detrimental effects of running and exercise on facial aging, I think that on-balance, the benefits of running and a healthy lifestyle outweigh the drawbacks," says Dr. Devgan. "Maintaining good cardiovascular fitness and an active lifestyle that includes running is probably one of the best things you can do, not only for your health, but also for your physical facial beauty."

The good news is that Botox and other neuromodulators, when administered by a board-certified plastic surgeon or dermatologist, can definitely help to combat those signs of aging. "We're in the middle of a new era of defining modern beauty or performance beauty, and I think an ideal Botox result is one where you have an improvement in skin quality, reduction in wrinkles, and natural movement," she says.

For the best results Dr. Devgan recommends starting Botox injections sooner than later, at a point where you're satisfied with your skin quality. "The dermis is like a piece of paper that gets progressively folded and creased over time with increasing wear," she says. "Reducing furrowing muscles at an earlier age will keep the overlaying skin smoother longer."

Be prepared, as an active person, that the effects might not last as long as someone who is sedentary. "Somebody who has very strong muscles or has a very fast metabolic rate might degrade the proteins in Botox and Botox analogs a little bit faster," says Dr. Devgan. She adds, though, that the difference in time is not dramatic. Generally, an average patient should expect to get touch up injections every three months, while a highly active runner might need them every two and a half.

And make sure to plan your treatment for a rest day, as you'll be advised to avoid physical activity for at least 24 hours.

Botox for Musculoskeletal Injuries

Recent research published in the journal *Current Sports Medicine Reports* found that Botox was helpful in treating several common sports injuries. "We found evidence showing promising pain relief and functional improvements using botulinum toxin for some very common conditions, including [plantar fasciopathy](#), tennis elbow, and painful knee osteoarthritis," said Dr. Clint Moore in a [press release](#). They also looked at treating chronic exertional compartment syndrome and myofascial pain syndrome.

The researchers believe that in some of these cases, the drug could be used as an alternative to surgery, with the effects lasting from three to six months. They are almost all off-label uses, with more research still needed. Botox as a pain reliever for osteoarthritis of the knee, for example, has completed a phase two clinical trial that compared knee pain in participants who received either a placebo or two doses of Botox.

Dr. Joseph McGinley, a musculoskeletal radiologist specializing in sports medicine, has been successfully using diagnostics to inform Botox injections in patients with chronic exertional compartment syndrome for about eight years. “With Botox, because the muscles are so large that we’re treating, we’re using very precise injections and developed a diagnostic protocol to allow us to specifically target the area of the muscle where the problem’s occurring,” he says.

In Dr. McGinley’s protocol, athletes typically only need two to three injections over the course of two years, and then the problem is resolved permanently. Unlike with Botox for cosmetics, where the skin is going to continue to age no matter what, his treatment is helping to completely retrain the muscle by causing the problematic area to atrophy and develop new muscle memory without the portion of symptomatic muscle.

Though there are a lot of upsides to using botulinum toxin for treating overuse sports injuries (like only two to three days of down time), Dr. McGinley recommends that runners try other, less invasive options first. But if compression garments, running mechanic assessments, custom orthotics, deep tissue massage, and physical therapy fail, Botox injections can be considered before surgery. “Always consider the most conservative, safest option first. Really, surgery should be reserved for only the most severe cases when everything else has failed,” he says.

Botox for Runners with Chronic Migraine Headaches

If you suffer from chronic migraine headaches (15 or more a month), it might be hard to think about big running goals.

For runners with chronic migraines, Botox, which was FDA-approved in 2010, is an appealing treatment option. “The advantage is that it doesn’t produce the side effects that will impair your ability to run,” says neurologist **Dr. Stephen Silberstein**. Other preventative migraine medications might cause swelling, weight loss, fatigue, fogginess, and other symptoms that make it a challenge to keep up a running routine. The result being fewer and less severe headaches overall.

Keep in mind, however, that for insurance to cover Botox as a migraine treatment, you have to have more than 15 migraine headaches a month and tried two other preventative measures first. Without insurance, the treatments can cost hundreds of dollars.

Questions to Ask Your Doctor

Botox is not without its side effects and can be quite dangerous if administered incorrectly. If you are going in for a Botox treatment of any kind, here are a few questions you should ask your physician:

1. What are the side effects to this treatment?
2. How many Botox injections have you administered?
3. What kind of training have you received?
4. What results should I expect and how long will they last?