

Botox

H. William Song, MD ©2009



If you are like most people, you have probably heard about Botox®. Everyone has seen pictures of Hollywood actors who have had blotched jobs resulting in the “plastic face.” What you may not know it that the person who works right next to you may be getting Botox® treatments regularly. The use of Botox Cosmetics® has exploded in recent year. More and more people from all walks of life are using Botox® to smooth away wrinkles that may make them look old or angry.

Movie Stars and the very wealthy have had access to Botox® Cosmetics treatments since the early 1990’s. Actors know that erasing wrinkles with Botox® and fillers can give them the edge when auditioning for the part that may have been lost to a younger performer. Business women and men, use Botox® to gain an advantage in the cutthroat world of deals and negotiations. Now every day people are getting Botox® treatments to look good and feel better about themselves. This book was written to help you decide if Botox® and other cosmetic treatments are right for you.

Botox® is the number one non-surgical cosmetic treatment in the United States. Every year, the use of Botox® grows exponentially around the world. If you consider the dramatic results that can be achieved with Botox®, it is no wonder that so many people are currently using it or considering it. The reasons people are flocking to their doctors to get “Botoxed” goes way beyond vanity. In our cut throat society, looking 10 years younger than you really are can be just the edge you need to nail that business deal or hold on to a coveted job as a news anchor. It can mean the difference between a politician getting re-elected or fading away into obscurity. Like it or not, it looks like Botox® is here to stay. Whether you are considering it to give your self-confidence a little boost, or you want to use it as a tool to keep the competition at bay, this chapter will give you the information you need to make your decision and to find the right medical practitioner to administer it for you.

What is Botox?

Botulinum toxin is a naturally occurring protein produced by a bacteria called *Clostridium Botulinum*. This toxin has been historically known to cause a serious form of food poisoning. As with many substances that are considered “poisons” in large doses, the purified form of botulinum toxin is now being used as a “miraculous” treatment for many medical conditions including the cosmetic treatment of frown lines and wrinkles. Botox® Cosmetics is not the bacteria itself, it is a purified form of the protein produced by the bacteria. It is important to understand the difference from a safety perspective. Because there is no organism in the Botox®, the product cannot cause a botulism infection or epidemic.

How does Botox® work?

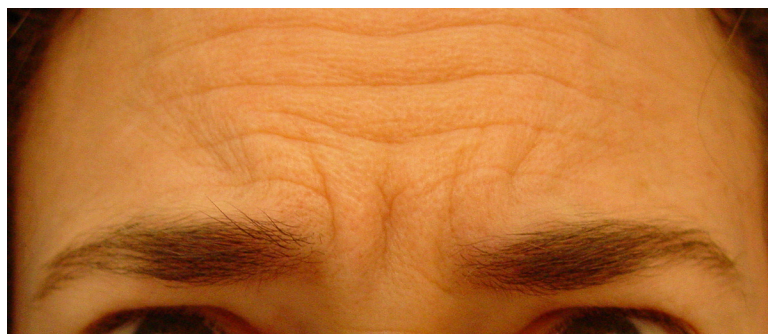
Botox® reduces wrinkles that are produced by the contraction of muscles. These wrinkles are called “dynamic lines” because they are caused by movement of the muscles. The movement of facial muscles cause the skin to scrunch up and form wrinkles. Over the years, the continuous scrunching of the same muscles cause permanent etching of the wrinkles onto the surface of the skin. Botox® keeps the wrinkles from forming by preventing the skin from scrunching.

Your muscles normally contract in response to a chemical signal from

the nerves that control the muscle. This chemical is called acetylcholine. Botulinum toxin weakens the muscle by blocking the release of acetylcholine at the nerve endings. Once the nerves are exposed to the Botox®, they are unable to release the chemical that cause the muscle to contract. This effect can last 4 to 6 months.

We take advantage of this unusual property of the toxin to treat a variety of conditions. By weakening the muscles that cause spasms in the legs, Botox® treatment can allow some children afflicted with cerebral palsy to walk. Some of the conditions treated with Botox® include: Strabismus (cross eye), facial spasms, neck spasms, excessive sweating, headaches, pain management and of course, wrinkles and frown lines. By weakening the specific facial muscles that cause wrinkling, horizontal forehead lines, vertical frown lines and crow's feet wrinkles can seem to magically disappear within a week after treatment.

What can be treated with Botox?



Botox® is FDA approved for the treatment of Glabellar frown lines. This is the “number 11” lines between the eyes. Although this is the only cosmetic treatment that is currently FDA approved, treatment of “off label” areas is more the rule than the exception. Horizontal forehead lines and crows feet are very popular areas to be treated. “bunny lines” around the nose, and even the horizontal lines on the neck are commonly treated with Botox®.

The reason Botox® is not FDA approved for these other commonly treated areas is because the company never pursued getting the approval. It is very expensive for a pharmaceutical companies to get FDA approval, so they typically seek approval for a single indication. Once the product is FDA



Before

2 weeks after Botox®

approved for use in one area, doctors are allowed to use their discretion to use that product for “off label ” indications. Since Allergan currently has no competitors for cosmetic Botox®, it is unlikely that they will pursue FDA approval for use in these other areas.

Is Botox® Safe?

Because it is derived from a toxin, people are naturally concerned about the risks and side effects of Botox®. When used in high doses to treat children with muscle spasms, the toxin can sometimes diffuse into the diaphragm muscles which are used for breathing. All the reported serious adverse events were in children and occurred with doses much higher than would ever be used in cosmetic procedures. I have not been able to find any reports of serious adverse reactions associated with the cosmetic use of Botox®. The safety standards for cosmetic medical products are much higher than for drugs used therapeutically. Because Botox® is so popular, it would be almost impossible for any related tragedy to escape the media.

Most of us have seen pictures of the “frozen face” after Botox® treatment. Everyone remembers the scene from the HBO TV series “Sex and the City” when Samantha had her Botox® treatment. Her friends were mortified to see her pretty face transformed into a puffy and plastic mask. This is an exaggeration of the side effects of over treatment. Such bad outcomes were pretty common years ago, but are rarely seen today when the treatment is administered by properly trained medical personnel. In the early days, doctors used to guess at the dose required to treat their patients. Now, the dosing and dilution of the product is standardized with specific guidelines for treating different areas of the face. The key is to have the procedure done by properly trained and experienced practitioners.

Are the treatments painful?

A very fine needle is used for injection, and the product is injected just below the surface of the skin. Most people tolerate the treatments very well. No anesthesia is necessary because the needles used are very fine.

Tip: Sharp needles will cause less pain and bruising. Ask the doctor to remove the stopper from the vial of Botox instead of pushing the needle through the rubber stopper. This will prevent the needle from getting dull.

How long does the treatment last?

Botox® treatments typically last 3 to 6 months. Because Botox prevents making of certain movements, people “forget” that they can do it and may not even attempt to frown for months after the Botox has worn off. People who are treated regularly with Botox often find that they can eventually stretch out the time between injections.

How much does it cost?

The pricing of Botox is tricky and confusing. You may see Botox advertised by the treatment area or by the unit. There is only one brand of Botox® approved for cosmetic use in the US. It is made by Allergan and is sold directly to the doctor. Allergan controls the pricing very strictly and never uses a distributor. Everyone who purchases Botox® gets it from the same place and pays the same price.

Botox is sold in vials containing 100 units. The product comes in the form of a very fine powder that is almost invisible in the vial. The practitioner

will have to dilute the vial with sterile saline so that it can be injected.

The amount of saline used to dilute the vial will determine the concentration. For example, if the vial is diluted with 1cc of saline it will contain 1 unit of Botox® per .1cc.

Here is where it can get confusing: Insulin syringes are typically used to administer the Botox. Insulin is measured in “units.” 0.1cc equals 1 unit of insulin. In fact, the measurements on the syringe will say “units.” Therefore, it is natural to assume that a 0.1cc dose of Botox® dispensed



through an insulin syringe will be equal to one unit of Botox®. This is not always the case. Depending on the injector's preference, different dilutions are used. For example, I like to use a 1:2 dilution for injecting large areas like the forehead, and a more concentrated 1:1 dilution for fine areas like around the eyes. When a 1:2 dilution is used, 0.2ccs would equal 1 unit.

As with any very expensive product, the potential for fraud and abuse is always present. Because the effects of Botox® are not evident for a week after treatment, many people have been swindled when they attended fly by night Botox® parties. Someone, who may not even be a doctor or nurse will show up with a fake bottle of Botox® and inject party goers with nothing more than saline or sterile water. To avoid being swindled in this way, make sure you check out the credentials of the person who is doing the injecting. Is this someone who is practicing in the community with a reputation to preserve, or is it a friend of a friend? Because one vial of Botox® contains enough product to treat two or more people, a Botox® party can be a way to save money by sharing a bottle. Ask your doctor if there is a discount available if you are willing to bring a few friends and have a "Botox® Party" at the office.

The other type of fraud, which is much more difficult to uncover, is simply misrepresenting the dosage being administered. You really have no way of knowing how much diluent is being placed in the vial. This is where trust and reputation comes in. Look for a doctor who has a good reputation and has been practicing in the community for a while. A doctor who recently relocated from another State may have legitimate reasons for moving, but you may want to check with the State licensing Board to make sure there were no disciplinary sanctions in other states. I have had patients come to me and tell me that they have tried Botox® in the past and it did not work. It is very rare for someone to have no response to Botox®. This person told me that she was pretty certain that she received real Botox® because the area was definitely numb for a couple of hours. When she told me that, I was able to confidently tell her that she was deceived. Botox® does not make you numb. She was probably injected with Lidocaine which costs about 100 times less than Botox® and, of course, does nothing for the wrinkles!

I like to price by the unit, because I think this is the fairest way to price the Botox® treatment, but some people just want to know how much it will cost to treat a certain area. I can give them an estimate based on the

number of units I think it will require. For the first treatment, I like to be conservative and administer the minimum amount that I think would be required to achieve the desired result. I have the patient come back two weeks later for a touch up if necessary. The cost of subsequent treatments are easier to estimate because I can base it on the amount they required previously. The cost per unit varies considerably. Most plastic surgeons will charge \$20 or more per unit. I think anything above \$20 is very high unless the practitioner is a really talented artist. I have seen advertisements on Craig's List for as low as \$9 a unit. This hardly covers the cost of the product, materials and insurance. I would be very suspicious of someone offering such low prices. Botox® is very fragile. It has to be stored at a certain temperature and it has an extremely short shelf life after opening the vial. Thousands of dollars worth of product have to be discarded if there is a power failure. It simply does not make sense for anyone to take that kind of risk for such a low profit margin. Also remember that you are not just buying product, you are paying for the training, skills and experience of the doctor or nurse who is doing the injection.

To treat the "Number 11" frown lines in the brow, it typically takes 6-18 units, horizontal forehead lines can take 20-70 units, crow's feet lines can take 12-30 units. The amount of product needed depends on the size of the muscle, individual sensitivity to the product and the desired final effect.

Some practitioners will advertise a fixed price based on the treatment area. This way of pricing is like an all you can eat buffet. If you are a person who typically requires very high doses of Botox®, you may make out on the deal, but if you are someone who is sensitive to small doses, you will end up paying the difference for the people with the big foreheads.

Botox® treatments are not cheap, but if you consider the amount of money many people spend on creams and products that are supposed to reduce wrinkles, Botox® can be a terrific value. A person spending \$200 or more a month for a wrinkle cream may get some equivocal results. Botox® treatment might cost you the same amount of money but you will almost definitely get results. I see advertisements all the time for products claiming to be "better than Botox®." I have yet to see any product that comes even close.

Most clinics that provide Botox® treatments will offer financing through third party programs like Care Credit®. Through Care Credit®, you can

get interest free financing for up to 12 months if the balance is paid off in that time period. Because Botox® treatments typically last 4 months, you can finance your treatment over three months so that you do not have to pay for the treatment all at once. By the time your next treatment is due, your balance will be paid off. Even before visiting your doctor, you can apply for Care Credit® by calling (800) 365-8295 or going to their web site: www.carecredit.com. Once you are approved, they will give you a number and send you a card which you can use at any health care provider who accepts Care Credit®. Paying for your Botox® treatments this way will break up a \$500 treatment bill to three payments of \$167 with no additional cost to you. One thing you need to be aware of is that you must pay off the balance within the promotional time period. Do not pay just the minimum payment, otherwise you will be hit with a hefty finance charge of 22.99% on the remaining balance. For more on Care Credit®, please see the chapter on Financing.

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