

# AESTHETICA



**Laser Surgery Center  
Cosmetic and Plastic Surgery  
Cosmetics and Skin Care**

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*Reveal your inner beauty*

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## About your procedure

### BOTOX

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## **S**MOOTH FACIAL LINES BY COSMETIC DENERVATION OF FACIAL MUSCLES



Dr. Caputy has been perfecting the use of BOTOX for facial wrinkles and we will review his recommended practice with BOTOX with you today.

**O**n June 5, 1999, the Los Angeles Times ran an article entitled, "A fountain of youth in a vial of poison". They were talking about BOTOX for the treatment of facial wrinkles. BOTOX is the brand name of a medication that is produced from the same bacterium that causes Botulism. The bacterium is extracted and only the purified toxin is used.

**B**OTOX ranks on the continuum of cosmetic procedures somewhere in the territory of collagen injection. It is not surgery. It helps you look refreshed. BOTOX is about buying time. It staves off about four to five years of wrinkle lines caused by habitual contraction of facial muscles. This procedure cannot improve wrinkles due to aging and sun-damaged skin since they are unrelated to facial muscle contractions. BOTOX injections will not improve sagging skin or replace the need for a facelift or brow lift.

**B**OTOX stands out as the emblem of the new minimalism in cosmetic work. It is fast, relatively painless, knife free, and won't reverse-engineer your face into some eerily young version of yourself. It is far



less expensive than plastic surgery. It is also less permanent. When you no longer want the effects of BOTOX, you just let it wear off.

OTOX injection is the sixth most common cosmetic medical procedure today. According to the American Society for Aesthetic Plastic Surgery, there were 65,157 BOTOX treatments for cosmetic purposes in 1997. In 1998 that figure rose to 157,439 a 142% increase.

**T**he plastic and reconstructive surgeons are looking to see BOTOX considered a preventive treatment for facial wrinkles. Like sunscreen, a healthy diet and exercise,

BOTOX could easily be added to our list of preventative care routines. The average time to treat one patient who is already familiar with BOTOX is 10 minutes.

**B**OTOX blocks impulses from the nerve to the tiny facial muscles that are relaxed to expression lines. BOTOX relaxes the muscles so they do not contract. After treatment, the overlying skin remains smooth and unwrinkled while the untreated facial muscles contract in a normal fashion, allowing normal facial expression to be unaffected.

**D**erived from the bacterium that causes botulism, the bacterium is extracted and only the purified toxin is used. BOTOX temporarily paralyzes the muscles into which it is injected. The paralysis wears off in about four months to six months.

**F**rown lines, forehead wrinkles and crow's feet are caused by the constant use of muscles, the ones that purse your forehead, raise your eyebrows and crinkle your eyes when you smile. Facial expressions occur when the brain sends a signal to muscle tissue. Nerve endings release acetylcholine, a neurochemical that stimulates movement. BOTOX blocks the release of acetylcholine at the neuromuscular junction. The paralytic effect of the toxin is dose related, with the peak of the effect occurring 5 to 7 days after



injection. Denervated muscle histopathology shows muscle atrophy and a mild degree of demyelination changes at the nerve terminal. Axonal nerve sprouting seems to be a usual

response to chemodenervation and may diminish true clinical muscular atrophy (hence long-term beneficial effects in some regions). A few days after treatment, the paralyzed muscles lose their tone, and wrinkles begin to flatten out. It is ideal to administer BOTOX on one who is just beginning to develop frown lines. If you treat the lines as they are beginning to form they will go away and never get the line in the first place. Sometimes a muscle can be only weakened rather than paralyzed completely. This helps those muscles around the mouth and eyes to relax and not wrinkle the skin.

**T**he story of this elixir of beauty begins with raw, salted ham. In 1895, a group of Belgian musicians fell desperately ill after eating the meat. Three died. The cause was identified as *Clostridium botulinum*, a bacterium that thrives in rotting meat or oxygen less places like your stomach and produces a neurotoxin that paralyzes muscles. When the diaphragm and respiratory muscles fail. It is fatal.

**T**he interest in chemodenervation, and specifically the use of botulinum toxin as a therapeutic agent for weakening particular skeletal muscles, dates back to the 1920's. In the 1950's the crystalline toxin was injected to produce transient weakness of extraocular muscles and permanent changes in ocular alignment.

**I**t was a husband-wife team of Canadian doctors who first realize the cosmetic implications of the toxin. In 1987, Vancouver ophthalmologist Jean Carruthers

was using BOTOX to treat eye spasms when a patient raved about how relaxed her brow looked after treatment.

**I**n 1989 the company Allergan, Inc., Irvine California, produced the only medical grade batch of botulinum toxin Type A in the United States, reformulated it and dubbed it BOTOX. That same year, BOTOX was approved by the FDA as a treatment for the muscular problems that caused strabismus (crossed eyes) and blepharospasm (eye spasms).

**T**oday Allergan sell BOTOX to doctors who use it for at least a dozen "off-label" problems, ranging from migraines and profusely sweaty palms to the muscular complications of cerebral palsy and strokes. Bruxism, painful rigidity, lumbosacral pain and back spasm radiculopathy with secondary muscle spasm, spastic bladder, achalasia, tremor, involuntary tics, tension headaches, neuromuscular paralysis, lower eyelid spastic entropion, aberrant regeneration of the facial nerve (after Bell's palsy etc.), acquired nystagmus, corneal pathology/amblyopia therapy aided by the effects of occlusion, and periorbital reconstructive surgery.

#### **ARE THERE ANY SIDE EFFECTS?**

- ◇ Temporarily bruising is common. To eliminate facial bruising it is advisable that patients temporarily discontinue aspirin and other drugs that can affect bleeding time before BOTOX administration.

- ◇ Temporary weakness of nearby muscles in some cases.
- ◇ Droopy eyelids (ptosis)
- ◇ BOTOX is a simple protein. Anaphylactic reactions have never occurred. A 1990 National Institute of Health study concluded that BOTOX was effective for treatment of several medical conditions but the long-term effects remain unknown.

#### **ADVANTAGES OF BOTOX**

- ◇ Effects are temporary; lasting 3-6 months
- ◇ Cost effective compared to any surgical or laser treatment (\$300.00 per paired muscle group)
- ◇ Minimal time commitment
- ◇ Others need not know your beauty secrets
- ◇ Smooths out appearance of dynamic wrinkles to soften expression lines

#### **DISADVANTAGES OF BOTOX**

- ◇ Need 2-3 times a year administration for the most benefit and best results
- ◇ Cost is prohibitive for some people
- ◇ Days to weeks to recover from surgery
- ◇ May be less effective for persons above 65 years of age
- ◇ Frustrations due to loss of control of fine facial movement

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- ◇ BOTOX will not improve sagging skin or replace the need for a face or brow lift
- ◇ Effects vary from patient to patient
- ◇ Possible ptosis which lasts for two weeks or more

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