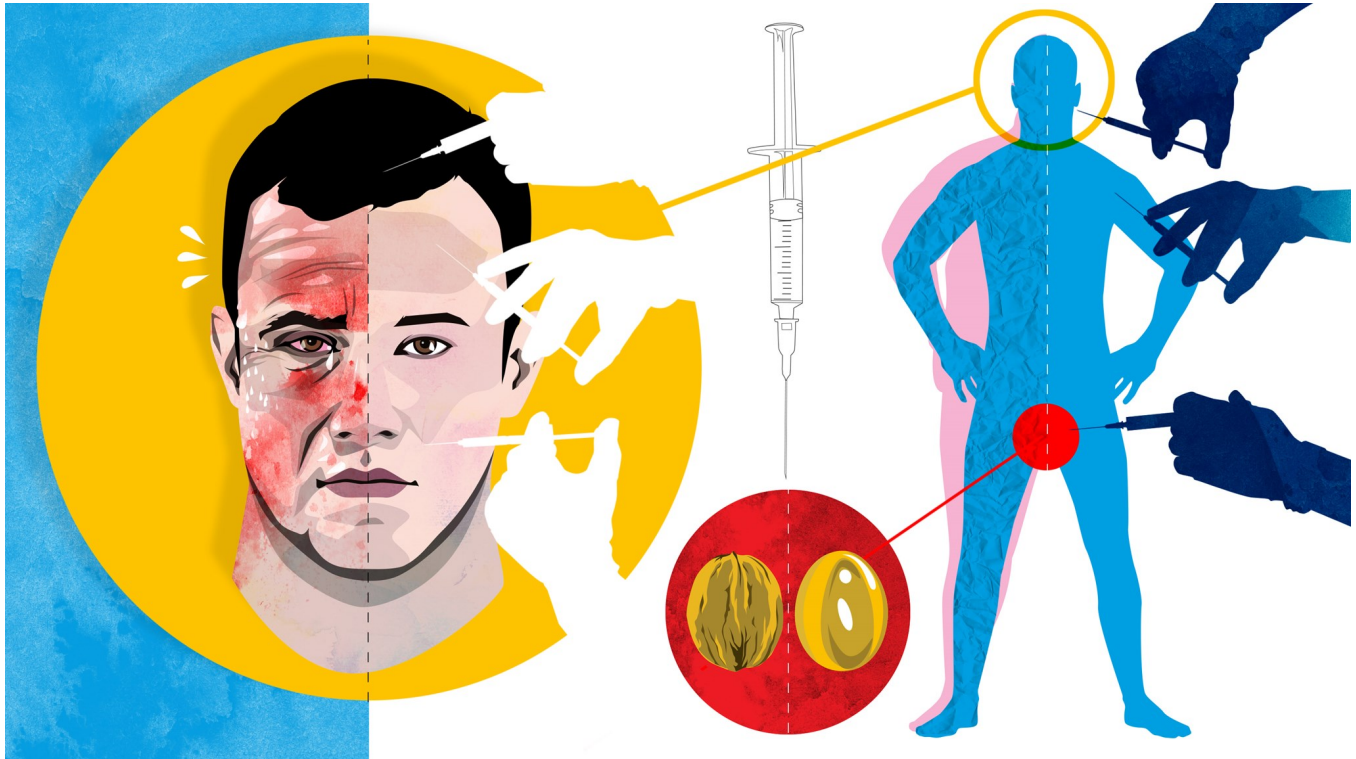




FAST FORWARD

# BEYOND COSMETICS: CAN BOTOX IMPROVE PERFORMANCE AT WORK (AND IN BED)?



## WHY YOU SHOULD CARE

Because getting Botox could result in a raise. No, really.

By Zara Stone

THE DAILY DOSE SEPT 17 2017

*In this original weeklong series, The Plastics: The Changing Face of Cosmetic Surgery, join OZY for a guided tour at the frontiers of enhancement, from aesthetics to pain relief to power performance.*

Around twice a month, New York–based dermatologist Dr. Dendy Engelman runs her hands through the lush mane of a New York exec. The woman’s hair is perfectly styled and highlighted, and expensive conditioning treatments keep it thick and soft. But that’s

not what concerns Engelman. She's examining the patient's scalp for the right places to inject syringes of Botox, with a special focus on the hairline. Once she's satisfied with the placements, she'll prick her patient 150 to 200 times and charge about \$1,200. Technically, she's blocking the chemical signals from the nerves that stimulate sweat glands, but Engelman has coined this technique Blowtox — a way for the busy woman to keep her blowout perfect for longer. “[Someone] who exercises constantly might use this to extend their blowouts or to be less sweaty in class,” she says.

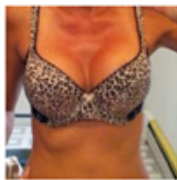
Botulinum toxin is the most widely used cosmetic injectable in the world, with 7 million procedures taking place in 2016 in the U.S. alone, according to the American Society of Plastic Surgeons. That's a 30 percent increase since 2010 and a mind-boggling 797 percent growth since 2000. As well as its best-known application — treating those pesky wrinkles — it's being used by clinicians for myriad other medical treatments, both on- and off-label. These range from poor circulation and depression — the idea is that if you can't frown, you can't be sad — to tending to migraines and premature ejaculation.

## **BOTOX IS THIS GENERATION'S ASPIRIN.**

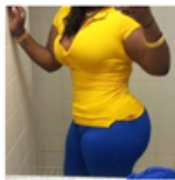
**DR. ROBERT COLVIN**

And it doesn't stop there, as doctors experiment with new uses. Currently, 690 Botox studies are listed on the U.S. clinical trial database, with standout applications including treatments for acne, wounds and vaginismus (involuntary squeezing or spasming of vaginal muscles during penetration). The neurotoxin's popularity extends far beyond vanity as its ease of application and half-life of three to four months makes it a surprisingly effective — and side effect-free — trial tool, even for hyperspecialized uses like feminization for patients undergoing trans treatments to beautifying the scrotum. Yes, really.

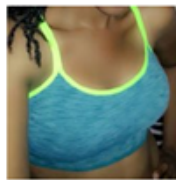
#### POPULAR TREATMENTS



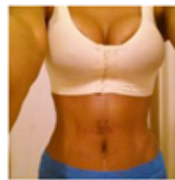
**Breast Augmentation**  
97% Worth It  
24,474 reviews



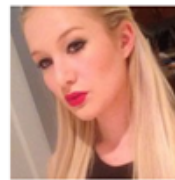
**Brazilian Butt Lift**  
93% Worth It  
19,810 reviews



**Breast Reduction**  
97% Worth It  
8,695 reviews



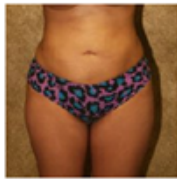
**Mommy Makeover**  
98% Worth It  
10,054 reviews



**Rhinoplasty**  
89% Worth It  
12,567 reviews



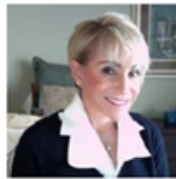
**Tummy Tuck**  
97% Worth It  
21,957 reviews



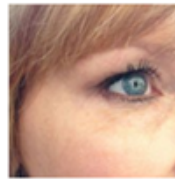
**Liposuction**  
88% Worth It  
5,893 reviews



**Juvederm**  
83% Worth It  
3,585 reviews



**Facelift**  
94% Worth It  
5,387 reviews



**Botox**  
89% Worth It  
7,452 reviews



**Invisalign**  
81% Worth It  
2,023 reviews



**Smart Lipo**  
82% Worth It  
2,518 reviews

You, only better.

SOURCE COURTESY OF REAL SELF

Boosting professional performance with Botox is on the rise, according to Engelman. “This can give [people] the confidence to perform without any signs of anxiousness,” she says. It can also improve their efficacy on the job. Engelman mentions (but doesn’t name) two psychiatrists who see her regularly for forehead lines — but not to look younger. “They claim Botox helps them do their psychoanalysis more effectively because they don’t have disapproving facial expressions” as their patients talk, she says. As in, bye-bye, **resting bitch face**. Treating these lines isn’t new, but the motivation for the treatment is, hence the term *Protox* that’s sometimes used to describe this use of the drug.

For some clients it can be transformative. “Sweating can be very embarrassing,” says Dr. Elliot Jacobs, a New York–based plastic surgeon and diplomate for the American Board of Plastic Surgery. “I’ve treated attorneys who have a very stressful job and when they go [to] court, they’re drenched and have to change clothing and [then] deal with wetness and odor. Botox has been life-changing for them.”

\* \* \*

In Dr. Robert Colvin’s San Francisco–based clinic, SKIN Medical Spa, patients come from a wide range of professions — the venture capitalist who doesn’t want to look drawn and tired, the 45-year-old Google employee trying to keep up with the 20-somethings and the 20-somethings looking for preventative treatment. “Botox is this generation’s aspirin,” says Colvin.

Colvin's most popular procedure is Botox, and during the course of his forehead-smoothing career, he stumbled across a beneficial, little-known side effect: its potential to heal scars. He discovered this property when he noticed a patient's forehead scar started shrinking dramatically during her treatment for wrinkles. "It's so good for skin regeneration," he says. "There are all these use cases, and people have only reached the tip of the iceberg." A few clinical trials are currently being conducted on Botox for scar reduction, but the application is still very much in its early days. Appearance is such a large factor in how people interact with others, and being able to heal scars — which can cause unconscious bias in the workplace — can boost confidence and career opportunities.

Today's top toxin comes with a revolting origin story. Contaminated food creates a breeding ground for bacteria, and one in particular, *Clostridium botulinum*, was deemed to be the cause of dozens of blood sausage–induced botulism deaths in Germany during the early 1800s. Dr. Justinus Kerner, who investigated these food poisoning outbreaks, coined the sausage bacteria botulismus — a play on the Latin word for sausage, *botulus*. Fast-forward to 1890 and another outbreak, this time in Belgium, left two dead and 23 paralyzed from food consumed during — of all things — a funeral dinner.

The second calamity led to the discovery that there are seven strains of the neurotoxin, and once the toxic varieties were weeded out from the benign, research was mostly shelved, barring a small foray during World War II when the military looked into using the bacteria as a chemical weapon. It started gaining interest again in the '50s and '60s, when researchers discovered that injecting a purified and diluted form could temporarily freeze muscles.

In the 1960s, ophthalmologist Dr. Alan B. Scott conjectured that the drug's muscle-freezing properties might work on misaligned eyes, testing his theory on monkeys in his San Francisco lab. He called his formula Oculinum; lo and behold, it worked, and it also proved useful in treating facial and vocal spasms. Scott got Food and Drug Administration approval for two medical uses and then closed up shop, selling his company to Allergan in 1991 for around \$9 million. The new owner renamed the clear fluid Botox. It was first used cosmetically in Canada, where ophthalmologist Dr. Jean Carruthers discovered her patients' frowns faded after Botox use. When she published a paper on her discovery, it triggered a rush in off-label wrinkle treatments until the FDA approved that usage in 2002. (The neurotoxin currently is approved for a total of nine medical conditions.) By 2016, Botox was contributing approximately 19 percent of Allergan's \$14.5 billion in net revenue.

In the U.S., three companies manufacture and distribute the drug — Allergan’s Botox; Dysport, marketed by Medicis; and Merz’s Xeomin — but the term Botox has become synonymous with wrinkle erasing, in the same way that ChapStick and Sharpie refer to all lip balms and markers, respectively.

\* \* \*

Inside Dr. Seth Matarasso’s San Francisco office, the latest issues of glossy magazines are displayed alongside binders filled with before-and-after photos of clients. The transformations are subtle but startling; people seem to shrink in size and age and are noticeably more **attractive** in their after shots. Matarasso himself has the smooth skin and jaunty demeanor of a man who doesn’t worry about money — and why would he when has the world’s most advanced skin lasers at his disposal? In the Botox world, Matarasso counts as an elite provider. He estimates that he injected more than 5,000 patients last year — that’s 2,200-plus vials. At roughly \$1,500 a vial (based on an estimated \$15 a unit), that comes to \$3.3 million. It’s no wonder he sees patients only by referral.

Matarasso says Silicon Valley culture has been influential in his client base; currently, men make up around 10 percent of his business. “It used to be the career man, 45 years old, wanting to compete with a colleague who’s 25,” he says. “They wore a shirt and tie, carried a briefcase. Now it’s Silicon Valley men, never worn a suit, carry a backpack — the face of Silicon Valley is changing.” This checks out across the cosmetic industry — the American Society for Aesthetic Plastic Surgery reports that men made up around 9.9 percent of all Botox patients in 2016, an estimated 330 percent rise since 2000.

## **IT’S A WONDER PRODUCT, BUT I WONDER IF WE HAVE CANNIBALIZED IT.**

**DR. SETH MATARASSO**

But unlike many who play God with the body, Matarasso is very aware of his contribution to today’s Botox overload. “It’s a wonder product, but I wonder if we have cannibalized it,” he says, his face improbably smooth. “There’s too much money on your hands if you’re doing it for blowouts — if I put toxin in your scalp, I need to see the science behind it.” He’s also wary of practitioners injecting it who don’t have expertise. If applied incorrectly, Botox can cause eyelids to droop, make swallowing difficult or, at worst, induce botulism and death— hence an FDA warning bulletin issued in 2009 and a couple of high-profile lawsuits that ended with the courts ordering Allergan to pay \$18 million to

one individual and \$212 million to another after they contracted botulism as a result of treatment. Now that's what Matarasso calls a misuse of power. (Allergan did not respond to a request for comment.)

\* \* \*

Now picture this: In a dermatology office in New Jersey, a man we'll call James sits awkwardly on a medical examination chair. His jeans and underwear hang on the back of the door; a hospital gown covers his privates. Dr. John Mesa instructs James to lean back and relax, pressing the lever to recline the chair. He lifts aside the hospital gown and moves closer to get an eyeful. After swabbing James' scrotum with an alcohol pad and a topical anesthetic, doctor and patient chat for 15 minutes or so, waiting for the numbing to take effect. Then Mesa picks up a syringe and injects Botox straight into James' bean bag.

The procedure is called Scrotox, and it's perhaps the most niche off-label use of Botox currently available. The objective is to make the scrotum smoother and longer. The effect is achieved by relaxing a pair of muscles: the cremaster muscle, which controls how far testicles hang below the body cavity, and the dartos muscle, which regulates the size of the scrotum. The idea is that a relaxed scrotum makes the testicles look bigger, leading to more confidence and better sex — literally performance enhancing in this case. Or so the thinking goes. Matarasso, for one, is wary of the science behind it.



The Botox face.

Mesa is one of the few practitioners who publicizes this practice. His website features NSFW before-and-after photos of a patient's enhanced junk. In the before picture, the testicles curl up behind the shaft, crinkled like a day-old bag of potato chips; in the after photo they are smooth and elongated, hanging an inch or so lower than the penis. The shaft is cradled by the extra skin, but objectively, I can't say I'm more turned on. "It [made] sex more enjoyable," one of Mesa's patients told *Cosmopolitan* magazine. "It doesn't last longer, [but] along with the aesthetics, my lower-hanging, relaxed and looser balls were more stimulating for my girlfriend." The procedure, for which Mesa charges \$520 to \$800, is not well-known, even in the industry. "I've never heard of this," says Jacobs, the New York plastic surgeon.

As for other odd applications, I stumbled across Botox being used for weight loss, the theory being that the toxins can be used to paralyze the body's hunger switch; sadly, it's an endoscope-only application. Less esoterically, Botox shows potential for treating acne and rosacea; in some cases, fastidious injections can prevent facial flushing by restricting blood vessel dilation. In less technical terms, that's bye-bye, tomato face, and hello, power pose.

"About 50 percent of the use of Botox is for treating various medical conditions," Harvard Medical School researcher and professor Min Dong tells OZY via email. Dong's lab investigates Botox's medical applications; he's interested in how it can address urological disorders and chronic pain. In particular, he's intrigued by Botox's efficacy for treating **depression**. In April, Allergan announced it was starting Phase 3 of its depression trials. A one-needle-fits-all solution to a broad range of ailments seems to be on the horizon, with the concept of prescription Botox for acne and pain — with a side of smooth skin — getting ever closer.

For Engelman, it's a positive step — for everyone. "Self-care happens younger and younger," she says, referring to "tweakments," not treatments, and notes the all-around benefit: Early skin maintenance means you'll look better — and perhaps perform better — later in life, if you stick with it. Can't say fairer than that.

## STAY INTERESTING