



WRINKLE WARRIOR

By Allison Woods

"It's actually the safest drug we use," explains dermatologist Dr. Alastair Carruthers based in Vancouver, B.C. He pioneered the cosmetic use of Botox. "It's exactly the opposite of what you'd think."

Although relatively new in cosmetic corners, in the 70s, ophthalmologists began injecting botulinum toxin into tiny eye muscles to treat crossed eyes. In the 80s, the muscle-paralyzing toxin was used to correct other facial, eyelid and limb disorders, such as tremors and spasms.

It was during such a procedure that ophthalmologist Dr. Jean Carruthers - wife of Dr. Alastair Carruthers - first noted a cosmetic benefit with Botox. After injecting a woman between the eyes to treat her eye spasms, the woman's frown lines notably diminished. The same stilled muscles which calmed her spasms had also prevented her from frowning - thereby diminishing her frown lines.

The cosmetic use of Botox was then researched by the couple, who published their findings in 1992. Meanwhile, in 1989, Botox was approved by the US Food and Drug Administration and the Canadian Health Protective Branch for certain ophthalmological ailments in adults. Currently, its cosmetic use is considered an "off label" drug.

Harsh frown lines and some wrinkles are caused by the constant action of muscles located beneath the skin. In particular, a furrow located between the eyebrows may appear and persist because of the repeated, often unconscious action of the "corrugator" muscle, producing an angry or frustrated look.

Botox decreases the strength of the underlying muscle where it is injected. By relaxing these muscles, the lines and wrinkles soften. To improve frown lines, botox is injected directly into the corrugator muscle, preventing the eyebrows from being drawn together when frowning. While most effective for frown lines, Botox is also used to treat forehead lines, crow's feet and rony neck muscles. It has now crossed over into the dentistry field and also serves as a treatment for those who perspire excessively.

The treatment is quick and simple - requiring no compatibility test pretreatment, and is completed in under five minutes. Diluted with saline, Botox is injected via tiny 30-gauge needle, causing a stinging sensation. Patients may experience minor bruising at the injection site, and perhaps a temporary headache.

"For cosmetic purposes, we inject extremely small doses of the toxin - 20 to 25 units compared to the 200 to 300 units used to treat neuromuscular diseases," explains Dr. Nowell Solish, a surgical dermatologist based in Toronto, ON. He has been using Botox cosmetically since the early '90s, after training with Dr. Alastair Carruthers.

"To indicate how small this amount actually is, consider that over 3,000 units of Botox is very toxic in humans." After injection, Botox begins working in two to four days. The effects fade gradually, over three to eight months.

When the first signs of the lines reappear, patients are reinjected to maintain the smooth effects. By continuously relaxing the muscles, regular Botox injections can even prevent new wrinkles from forming. Another noted beneficial effect is alleviation of frontal "tension headaches." Less than one percent of people injected with Botox experience ptosis - a temporary lowering



of the upper eyelid - but it is not always visible. To lessen the risk of developing ptosis, patients are advised against massaging the area and to remain upright for four hours post-treatment.

Botox can be combined with other cosmetic procedures, such as collagen and laser resurfacing. It should not, however, be injected into pregnant or breast-feeding women, or people taking certain antibiotics. Costs vary between practices and countries. In Toronto, Dr. Solish charges \$300 Canadian per injected area - a comparable cost to collagen. Since pioneering Botox's cosmetic use, Dr. Carruthers has injected more than 1,000 people. But the biggest surge in interest happened less than one year ago.

"Although Botox is really quite remarkable - an easy process, zero downtime and no side effects - it has taken until this last year for Botox to be accepted," Dr. Carruthers explains. "The media have taken a real interest in it lately.

In December, 20/20 filmed a show with us on Botox, from the person's point of view, which was very positive. Now people are asking for the treatment.