

# A Wrinkle In Time: Recent Advances In The Treatment Of Aging Skin

Contributed by Dr. Peter Karlsberg

The great success of laser-based skin resurfacing in improving facial wrinkles and scars has in some respects overshadowed many important new developments in cosmetic skin rejuvenation. As an example, patients often approach me and ask specifically for the resurfacing procedure, when in fact their needs would be better met by a very different therapeutic strategy. I encourage such patients to consider first the specific facial features with which they are unsatisfied and would like to see improved. From this point, it is much easier to talk about treatment options ideally suited to their needs and the relative merits of each approach.

Wrinkles are responsive to a number of different treatment strategies, and no single treatment is best for everyone. For patients bothered by sagging around the jowls and neck, there is no substitute for an expertly performed face lift. Yet face lifts don't help much with wrinkles. Wrinkles between the eyebrows and across the forehead and temples, are due to the repetitive action of strong underlying muscles of facial expression and are called dynamic furrows. These lines tend to reassert themselves relatively soon after most corrective measures in people who tend to over use these muscles in facial expression. For these people, a substance known as Botox provides a safe, effective and minimally invasive method of reducing such lines.

Botox is an FDA approved, purified botulinum exotoxin derivative which, when injected in very small quantities beneath the skin, reduces dynamic (also known as hyperkinetic) furrows by temporarily paralyzing the muscles which contribute to their development. Botox was originally developed for the treatment of eye muscle disorders but has been used successfully for cosmetic purposes for several years. Although the use of a toxin may sound frightening to some, the safety of Botox is well-established. Side effects are uncommon, minor and, when they do occur, are temporary. Frown lines between the eyebrows, surprise lines across the forehead, and smile lines outside the eyes (crow's feet) can all be successfully softened by Botox. On average, the cosmetic benefits of Botox persist for 3 to 4 months. The good news is that the duration of Botox's effect tends to increase the more times it is used, so that the interval between retreatments may extend as patients continue with this therapy.

An additional and very important benefit of Botox is its use as supplemental therapy when performing laser resurfacing of wrinkles, thereby achieving a more lasting benefit from the laser procedure itself. A similar benefit is obtained when treating certain dynamic wrinkles with filler substances such as collagen. By putting the underlying muscles to rest, the collagen may be reabsorbed by the body more slowly and provide longer-lasting correction.

Many wrinkles and scars are due to the loss or distortion of underlying collagen, elastic tissue or fat over time. In these circumstances, the best treatment approach may involve soft tissue augmentation using a filler substance. At present, several new filler substances with the potential for long-lasting correction and excellent safety profiles are

being developed and successfully used. Most notably, two collagen-based fillers derived from the patient's own skin are making their debut: Isolagen and Autologen.

Without detailing the differences between these filler "systems," the basic concept involves harvesting a small amount of skin in the doctor's office, sending it to a laboratory where it is processed or grown over a period of a few weeks, and then re-injecting the final product into facial lines, lips and wrinkles. The patient even has the option of permanently storing their own collagen-producing cell line for future and repeated use. As human collagen from the patient's own body, the risk of an allergic reaction is virtually zero. Preliminary results from clinical trials suggest that this form of collagen lasts much longer than the purified bovine (cow-derived) collagen which is currently quite popular, yet only lasts 3 to 6 months.

The ideal approach to the treatment of aging skin requires an individualized assessment based on a physician's thorough knowledge of the ever-growing spectrum of skin rejuvenation techniques, including their strengths and limitations. In this way, your doctor can recommend a treatment strategy that is best suited to your particular needs.