

BY LINDA RAE AND SHERRY TAYLOR

THE DEMAND TO RESTORE A YOUTHFUL APPEARANCE

to the face has been an obsession of many since ancient times, but never more so than in today's society. Up until a few years ago, the ultimate in facial rejuvenation was plastic surgery, but today there are many more options available to those who do not wish to go under the knife.

In addition, today's economic stress has created a demand for less expensive ways to achieve facial rejuvenation without the cost or the downtime of surgery. According to a recent survey by the American Academy of Facial Plastic and Reconstructive Surgery, approximately 80 percent of board-certified facial plastic surgeons reported an increase in non-invasive cosmetic procedures within the past year among consumers looking to delay the effects of aging.

There are so many possibilities for facial rejuvenation that often the available products and names are confusing. While injectables do not replace cosmetic surgeries, especially when it comes to severe loss of elasticity (sagging) or deep folds, they can drastically improve the appearance of an aging face or even slow down the process. There are two broad categories of injectables. They are botulinum toxin paralyzing agents and fillers. It is extremely important that estheticians become not only familiar with what they do, but what they cannot do as well.

Botulinum toxins

Botox® and Dysport®: When you look at yourself in a mirror with a straight face, any wrinkles or folds you see are referred to as "static." When you smile, frown or grimace, the additional wrinkles that appear are called "dynamic." Botulinum toxins help "dynamic" wrinkles and folds. It does this by immobilizing and relaxing the areas injected, working to paralyze the muscles so they cannot contract. When muscles cannot contract, the skin over the muscles also becomes relaxed, smooth and youthful in appearance. Results are not immediate. In general, it may take up to a week to start seeing improvement.

Dysport is very similar to Botox since they both contain the same main ingredient, made from the same neurotoxin, botulinum toxin A. According to plastic surgeon Roberto Palma, M.D., of Sunrise Intracoastal Plastic Surgery Center, Ft. Lauderdale, FL, Dysport seems to have a faster onset. Botox starts working within 24 to 48 hours, reaching maximum effect within 9 to 12 days. Dysport starts working within 24 hours, reaching maximum effect within 5 to 7 days. There is no difference in longevity, which is approximately three to five months.

Although Botox and Dysport are only FDA-approved for frown lines between the brows, physicians use them "off la-

bel" in other areas. Off label means that the physician may inject into areas not yet FDA-approved. The FDA does, however, require patients to be informed of any "off label" use.

According to Murray Smith, M.D., of Las Olas Dermatology, Ft. Lauderdale, FL, resistance to treatment and formation of antibodies to Botox and other FDA-approved botulinum toxins are extremely rare. Very low doses are used. Side effects are infrequent and usually resolve spontaneously in a week or so.

Dr. Palma states that "paralyzing the wrong muscles can lead to very visible abnormalities such as droopy upper eyelids, eyebrow deformity and asymmetries (different on each side). If the entire forehead is treated, the eyebrows can fall, making the patient look tired and sleepy. The patient may lose normal facial expression. I do not believe in injecting lips with these products," Dr. Palma continues, "because of the high risk of causing smile abnormalities and asymmetries."

Fillers

While botulinum toxins help "dynamic" wrinkles, fillers help the "static" wrinkles by filling in the grooves, folds and hollows. The products do this by bulking or raising them up, which then smoothes the skin, giving the face a more youthful appearance. Fillers lift sunken and depressed areas, fill in wrinkles, fine lines, creases, hollows in cheeks and under the eyes, as well as enhance lip fullness. "The longevity of fillers varies with the product, the sites injected and the skill and experience of the injector," says Dr. Palmer.

While it may seem like there are already many options available, many more filler products are currently awaiting FDA approval. Do not be surprised to see several changes before the end of 2011.

According to Dr. Palmer, "There is no such thing as one product being better than another. They all have different indications and the well-trained, experienced injector usually will use most of them depending on the specific needs of each individual patient and the areas to be corrected." Selection of filler is an important part of the process, as different fillers work best on deeper wrinkles, whereas others are needed for fine lines and creases.

Hyaluronic acid

Hyaluronic fillers have the best safety profile of all the fillers currently on the market. Since hyaluronic acid is naturally present in all living beings and a component of connective tissue, chemically identical in all species, no skin testing is required. Dr. Palma feels that only these synthetic fillers are safe to use on the lips. When talking about the longevity of the products, he states that "in the nasolabial creases, the average is six to nine months and in the lips I have seen up to one-and-a-half years in my patients."

Juvederm® XC, Perlane®-L and Restylane®-L are all second-generation hyaluronic-based dermal fillers that work just like the original formulas (Juvederm, Perlane and Restylane) but they contain a small percentage of lidocaine, which numbs the treated area so that the injections become more comfortable for the patient. Hyaluronic fillers can easily be removed by dissolving with an enzyme if the patient is unhappy with the results.

Radiesse

Radiesse® is considered a volumizer filler. It is composed of CaHa (calcium hydroxylapatite) similar to tooth material. Radiesse instantly restores volume to the face and also keeps working to stimulate the production of the body's own collagen. This results in increased volume that may last a year or more. It is used in the correction of facial folds and moderate to severe wrinkles and is often used to lift the cheeks.

Sculptra

Sculptra®, poly-L-lactic acid, works by stimulating the patient's own collagen until the area is volumized. The procedure consists of a one-time treatment regimen of up to four injection sessions that are scheduled about three weeks apart. Full results may not be seen for several months. It can last for years and is suitable for larger areas such as mid-cheek hollows, states Dr. Palma who refers to Sculptra as a volumizer, rather than a filler. Unlike hyaluronic fillers, both Radiesse and Sculptra must wear off and cannot be removed.

Artefill

Artefill® PMMA (polymethylmethacrylate) microspheres, with bovine collagen as the carrier, is relatively new to the U.S. market. Since it is non-absorbable by the body, it is considered a permanent filler. Because the bovine collagen is not identical to human collagen, skin testing is mandatory per the FDA. A four-week waiting period, before the first injection, is required. If the testing is positive, the product cannot be used. Complications, although rare, include hard, red, swollen bumps, which must be surgically removed.

"Longer is not necessarily better as some side effects are known to be associated with longer-lasting products," adds Dr. Smith.

Collagen

Collagen fillers have been used for more than 20 years and are meant to replace the lost collagen in the dermis. There are two types of collagen-based injectable fillers: purified bovine (cow) collagen (Zyderm® and Zyplast®), which requires allergy testing; and human-derived collagen (CosmoPlast® and Cosmoderm®), which does not require allergy testing. Both of these collagen fillers last from three to six months.

continues

Botulinum toxins	Manufacturer	Distributor
Botox®	Allergan	Allergan
Dysport®	Q-Med	Medicis
Xeomin®	Merz	Merz
MyoBloc®	Solstice Neurosciences	Solstice Neurosciences
Hyaluronic fillers	Manufacturer	Distributor
Restylane®	Q-Med	Medicis
Restylane® L - w/ lidocaine	Q-Med	Medicis
Perlane®	Q-Med	Medicis
Perlane® L- w/ lidocaine	Q-Med	Medicis
Juvederm®	Allergan	Allergan
Juvederm® XC w/ lidocaine	Allergan	Allergan
Prevelle® Silk w/ lidocaine	Genzyme	Mentor
(numbing agent)	,	
Human collagen fillers	Manufacturer	Distributor
CosmoDerm®	Allergan	Allergan
CosmoPlast®	Allergan	Allergan
HydraFill®	Allergan	Allergan
Bovine fillers	Manufacturer	Distributor
Zyderm®	Allergan	Allergan
Zyplast®	Allergan	Allergan
Misc. Fillers	Manufacturer	Distributor
Artefill® -a dermal filler consisting of synthetic microspheres called Polymethylmethacrylate (PMMA) in bovine-based collagen	Suneva Medical	Suneva Medical
Selphyl® - a dermal filler technology using blood collected from the patient	Trademark of Æsthetic Factors	Trademark of Æsthetic Factors
Sculptra® - a dermal volumizer - Synthetic Poly-L-Lactic Acid	Sanofi-Aventis	Sanofi-Aventis
Radiesse® - a dermal filler- Calcium Hydroxylapatite (CaHa)	Merz	Merz
Fat Transfer- extracts fat cells from a discreet area of body & transfers them through an injection to appropriate sites	Performed by physician	N/A
On the Horizon	Manufacturer	Distributor
Aquamid® - consists of 97.5% water & 2.5% polyacrylamide	Contura International	No USA distributor
Belotero® Balance - hyaluronic acid, in combination with cohesive polydensified matrix technology	Merz	Merz
Restylane® Vital - used for areas such as the décolleté & back of the hands. It is 80% hydrating and 20% volumizing.	QMed	Medicis

On the Horizon	Manufacturer	Distributor
Restylane® SubQ - is intended for injections where large volumes are required, such as the shaping of facial contours of the cheeks and chin	QMed	Medicis
Juvederm® Hydrate - Hyaluronic and mannitol	Allergan	Allergan
Juvederm® Voluma - Hyaluronic volumizer	Allergan	Allergan
Zfill - from Germany, a hyaluronic dermal filler said to last up to 18 months	Zimmer	Zimmer
Puregen™ - hyaluronic, for deep to moderate lines and highly mobile facial areas	Genzyme	Mentor

Autologous fat/fat grafting

Fat is usually extracted from the abdomen or thighs. The fat is then processed through a centrifuge and injected into the areas of the face where volume is needed. It is long lasting, even sometimes permanent. It may take more than one series to get the desired result. This procedure requires greater surgical expertise by the physician and a few days of down time.



Selphyl System

The Selphyl® System, referred to as the "vampire facelift," is a new filler that uses the patient's own blood, which is injected into skin depressions, wrinkles and creases. Upon injection, the platelets release growth factors that trigger the cells to multiply, which increases volume to create a more youthful appearance. Results are immediate but do not reach its optimum capacity for 3 weeks and can last 12 to 18 months.

Esthetician's role

Often the role of educating the patient about injectables falls to the esthetician. According to Loretta Ciraldo, M.D., a leading South Florida dermatologist, "It is so often the esthetician who is the first person truly consulting with the potential filler patient. If someone complains of any problem relating to volume loss (nasolabial creases, marionette lines, tear troughs) fillers are often a wonderful modality to consider." Estheticians

should not advise clients as to what type of fillers are appropriate. This is the medical practitioner's responsibility. The esthetician's goal is one of education, referral and support.

According to Dr. Ciraldo, "It is best not to do other procedures on the day of a filler treatment. I like to stress to my filler patients that if they are going through filler treatment, they want to be sure to maintain their entire face in the most effective way."

Recommend treatments and home care to keep your client's skin in the best possible shape to enhance their new look. Schedule a series of peels, microdermabrasion or other types of exfoliation. Send them home with collagen-boosting and hydrating products as part of their daily regimen. While there are no proven modalities to actually enhance or prolong Botox or fillers, keeping the skin in optimum shape will certainly enhance your client's youthful appearance.



Sherry Taylor currently serves as paramedical skin care instructor at Florida College of Natural Health, Fort Lauderdale, FL. She has previously served as director of esthetician training and development for a national chain of medical spas, and is also the owner of a successful skin care and image consulting business.



Linda Rae is the owner of Linda Rae Skin Care and the creator of a resultsoriented pre/post facial plastic surgery program. She was formerly an international educator for a major skin care line. They may be reached at info@TaylorRae.net.