

## **Paralyzing Agents & Injectable Fillers**

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### **Introduction**

Botox®, Xeomin®, & Dysport® are all toxins that blocks nerve transmission thereby temporarily relaxing underlying muscles. They are excellent in the treatment of wrinkles caused by muscle movement (forehead, crow's feet, and mouth). Injectable fillers are naturally occurring or synthetic products that can be added to depressions in the face, hand, or body. Most soft tissue fillers have the consistency of either "jelly" or "jam," which means there are thin/light or thick/heavy. The fillers most commonly used today are: Juvederm®, Voluma®, Belotero®, Restylane®, Radiesse®, or human Fat (harvested from the patient). Sulpra®, Alloderm®, and human Collagen are uncommon due to concerns about risks, efficacy, and cost. These soft tissue fillers are often categorized or chosen based on cost, risk, time, location, and longevity. Of course, this list is constantly changing as new cosmetic products are introduced and older products are discontinued or replaced.

### **Botox®**

Botox® is a natural, purified protein, which in very low doses relaxes the overactive muscles that cause frown lines to form. Treatment is simple and non-surgical and smoothes the deep, persistent lines between your brows that can develop over time. The effects of Botox® last for approximately 3-6 months. To learn more visit [www.botoxcosmetic.com](http://www.botoxcosmetic.com).

### **Xeomin®**

Xeomin® is a purified protein, which in very low doses relaxes the overactive muscles that cause frown lines to form. Treatment is simple and non-surgical and smoothes the deep, persistent lines between your brows that can develop over time. The effects of Xeomin® last for approximately 2-4 months. To learn more visit [www.XeominAesthetic.com](http://www.XeominAesthetic.com)

### **Dysport®**

Dysport® is a purified protein, which in very low doses relaxes the overactive muscles that cause frown lines to form. Treatment is simple and non-surgical and smoothes the deep, persistent lines between your brows that can develop over time. Although the cost of Dysport® may be less, the effects appear to be less predictable. To learn more visit [www.dysportusa.com](http://www.dysportusa.com)

### **Belotero®**

Belotero® is a thin cosmetic dermal gel that adds volume to your skin by mimicking the hydrating effects of your skin's natural hyaluronic acid (HA). It can be used to plump up very fine lines in the face such as the lips, eyelid, or crow's feet. Belotero® is injected superficially into the skin with an ultra fine needle and can be combined with a numbing product to decrease discomfort. This does not have the longevity of the other hyaluronic acid (HA) products, but provides smoother contour for about 2-4months. To learn more visit [www.Belotero.com](http://www.Belotero.com).

### **Restylane® / Juvederm Ultra®**

Restylane® and Juvederm Ultra® skin to correct mild to moderate facial wrinkles and folds, such as around the mouth, cheek, or forehead regions. These are thinner HA products that restore fullness and provide smoother contour to the face for 6 months or longer. These products are injected directly into the skin in tiny amounts by an ultra fine needle, resulting in minimal discomfort for patients.

### **Perlane® / Juvederm Ultra Plus®**

Perlane® and Juvederm Ultra Plus® are cosmetic dermal gel fillers that restore fullness to the skin to correct moderate to severe facial wrinkles and folds, such as smile lines, mouth lines, and nasolabial folds. These are slightly thicker HA products that restore fullness and provide smoother contour to the face for 6 months or longer. These products are injected directly into the skin in tiny amounts by an ultra fine needle, resulting in moderate discomfort for patients.

### **Juvederm® XC**

Juvederm XC® is cosmetic dermal gel fillers combined with a numbing agent that restore fullness to the skin to correct facial wrinkles. It is available in thicker or thinner product lines. XC is a HA product that restores fullness and provides smoother contour for about 6 months. The numbing medicine Lidocaine allows this product to be injected directly into the skin in tiny amounts with less discomfort for patients. To learn more about this product visit [www.juvederm.com](http://www.juvederm.com)

### **Voluma® XC**

Voluma® XC is cosmetic dermal gel fillers combined with a numbing agent that restore fullness to the skin to correct problems with facial contour. It is a thicker HA product that restores fullness and provides smoother contour for about 8-14 months. The topical numbing medicine in the product allows it to be injected deep to the skin and soft tissue in tiny amounts with less discomfort for patients. To learn more visit [www.voluma.com](http://www.voluma.com).

### **Radiesse®**

Radiesse® or Radiance™ is a filler composed of material found in human bone. It is FDA approved for cosmetic use in humans. Radiesse® is also FDA approved for other applications and is considered safe in those situations. It is a thicker product that is good at treating deep wrinkles and other deep contour irregularities. Its risks include palpability and unintended boney in-growth. Radiesse® is more painful to inject and requires greater technical skills during injections. It cost more than other fillers and has greater risks, but its effects may last up to 2 years. To learn more visit [www.radiesse.com](http://www.radiesse.com).

### **Fat Grafting or Transfer (Your own Fat)**

Fat grafting has been used for over a two decades with success. Fat cells are harvested from the patient using a small cannula and syringe. The fat is centrifuged and “packed” to remove impurities and then injected to the desired sites through a small needle. There is a 40-50% rate of cell survival of all the fat cells injected. Typically three months following surgery some 40-50% of fat placed originally will be there forever. Fat grafting requires technical expertise, the operating room for equipment, and multiple applications. It is an excellent option when going to the OR for other procedures. Your own fat is usually free, abundant, and long-lasting.

### **Collagen**

Although the use of animal derived collagen is old, the use of human collagen as an implant material is relatively new. The premise is, that tissue taken from a patient and reformulated as collagen can then be returned to the patient in injectable form to fill wrinkles and depressions primarily in the face. Unfortunately, collagen is resorbed by the body over time and last for only 2-3 months. The other products listed above have replaced this technology for now.

### **Alloderm® & Sulpra®**

Alloderm® is derived from cadaver skin and has been used as a soft tissue filler. The material is very costly, and its effects may last 1-3 years. Sulpra® is a polyglactin synthetic material that is costly and requires a minimum of 3-4 injections. It can be applied in large volumes, but the predictability of its effects has been questioned. Other injectable products have replaced these applications with far less cost and complications.

### **Summary**

Technology continues to provide new and improved cosmetic products that enhance results and last longer. Time has shown that some of these products do not work as well as we once thought and others work better than we imagined. These products are routinely injected in locations that are not FDA approved and considered “off-label.” It is best to have a frank discussion with Dr. Lowe regarding your aesthetic concerns and let him make recommendations that fit your clinical problem and your budget. It is important to discuss the risks and period of benefit with Dr. Lowe so that you can make an informed decision regarding your care. To learn more about these products visit [www.drjimlowe.com](http://www.drjimlowe.com)