

Lines and Contours

The human eye sees various things when it looks at another face. Pigment variations cause varied light dispersion presenting with the clinical appearance of low luminosity, which translates into skin that looks tired or old. Volume loss resulting from loss of soft tissue and fat as well as fat pad descent results in a hollow appearance. However, when one asks cosmetic patients for a single issue they could change, it is inevitably the lines and wrinkles on their skin. Fortunately, core aesthetic specialists have a variety of means with which to improve the appearance of each. Understanding these options and selecting the appropriate treatment is the key to patient happiness.

Lines and wrinkles have a few simple causes. Either the skin is being pulled or pushed repetitively or the support that held the skin up is diminished. The etiology for loss of support structure includes bone loss (increasingly recognized as a significant issue), loss of collagen and elastic fibers, and muscle action that etches in lines. Susceptibility to each depends on intrinsic and extrinsic factors.

Fine lines around the mouth are caused by the actions of the orbicularis muscle and the loss of support from the lip as it atrophies. The dynamic lines caused by orbicularis motion can be treated with injections of botulinum toxins. The loss of support may be rectified by injections with hyaluronic acids to replace lost tissue. The overall appearance may be improved with resurfacing lasers such as fractional erbium or fractional CO₂. In my experience, combinations of these modalities are the best means of renovating the perioral area.

Deeper lines such as glabella furrows or nasolabial creases are helped with different modalities. Glabella furrows are best treated with combination treatment of fillers and toxins when there is a furrow that is present at rest. For furrows that are purely dynamic in nature, treatment with botulinum toxins is adequate. Nasolabial creases, on the other hand, are primarily treated with volume replacement. Where the volume replacement is injected depends on the individual, and deciding what filler and where to put it can be the subject of another entire article. My recommendation is that when a crease is superficial (eg, less than 2 mm) it can be filled with a product that can alter the contour of the surface of the skin without

causing noticeable surface irregularities. The exact product choice depends on the thickness and color of the skin. When the crease is the result of midface descent, the answer to the problem is more complicated and requires injections that can lift the face, which means either using thick fillers in the zygomatic area, poly-L-lactic acid to tighten the skin, or a CO₂ laser to shrink the collagen and draw the skin tighter. Surgical removal of excess skin and repositioning of the fat pad is also something to consider, and consultation with a plastic surgeon is worthwhile for patients who need more invasive modalities. The art of facial rejuvenation, in part, requires the physician to recognize the limitations of each of these as well as how each will interact with the individual patient seeking treatment.

Contours refer to the shape and curvature of the face. They are primarily a function of the underlying scaffolding and support structures that determine the volume and tension that drape the skin. Bone loss that occurs with menopause has a significant amount of influence on the shape of the face. Soft tissue loss and loss of tension in the suspension ligaments for the fat pads also cause the face to drop. Moving facial structures into a more youthful position will impart a more youthful appearance, which is the goal for facelifts performed surgically. It should also be the goal of injectable renovation with the use of Sculptra, Radiesse, Perlane, and fillers available in Europe. These products need to have the physical characteristics of lifting the skin and so need to have a relatively high G' (G' is best thought of as a measure of the ability of the product to resist a shearing force and translates into the ability to lift and sculpt) or the ability to stimulate collagen in a manner that lifts the face. Lasers that tighten the skin by shrinking the collagen may also help with this goal.

The difference between filling lines and facial sculpting can best be appreciated by understanding the differences in their causes. Any person with a needle (a license helps) can spackle over some wrinkles, but only someone with an understanding of facial anatomy can really remodel the face. Addressing the appropriate issue with the correct products or treatments can not only set your practice apart but also help your patients look and feel better.

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