

Changes in Eyebrow Position and Shape with Aging

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Simple excisional brow lifts have been performed since at least 1910.¹ In the late 1970s and 1980s, as brow lifts became more aggressive with corrugator and procerus treatment, they were embraced widely because they offered the promise of correcting the difficult upper third of the face. With time, it became apparent that the well-selected results of early presentations were not typical when the operation was more generally applied. Many patients appeared odd, even those presented as good results.² Clearly, there are technical and perceptual complexities that are still being unraveled. The authors here make additional observations on brow lifts, brow position, and elevation patterns with age.

In the experimental part of this article, the authors measured eyebrow height in two cohorts of women aged 23 to 30 years and 50 to 60 years. They excluded women who had the lower eyebrow margin plucked or received botulinum toxin. They found that those in the older group had significantly higher mid and medial brows than the younger group; in other words, assuming that the two groups were comparable at a young age, those areas of the brow elevated at the time of examination.

I think there would be general agreement that brows rise from muscular contraction. If this is true, the question of age-related brow elevation leaves the realm of anatomy and becomes an issue of animation patterns and behavior—in all of its human and unruly variability.

I have seen patients hold their brows up because of weakness in the levator system or from visually obstructing low brows. These are frequent and easy to understand. There are those whose brows will pop up, quite unconsciously, in front of a mirror or a camera, usually accompanied by a moue of the lips. This behavior is also commonly seen in social interactions when one is trying to appear one's (self-perceived) best. I have photographs of patients whose brows are elevated on one picture and not another over multiple office

visits. Sometimes, older women just like to hold their brows up because they think they appear good that way; they are frequently unhappy when the brows are lowered to a more reasonable position. I have found that simply closing the eyes does not relax the forehead in many patients.

In our longitudinal study,³ we found that, over 10 to 45 years, roughly one-third of patients elevated their brows, roughly one-third dropped them, and roughly one-third stayed the same. Many unchanged brows in transversely wrinkled foreheads probably rely on muscle force to maintain neutrality. As we have studied more patients, we make an effort to tell patients not to elevate their brows, and as a consequence, more patients can be seen to drop or maintain brow position with age, which we think is their true natural history. We also noticed that when brow descent occurs, it is usually by a few millimeters and almost always less than a brow lift elevates them. Quibbling aside as to the general occurrence of the phenomenon, we believe that the authors' point is valid in that there are some people who hold their brows up, although we are less sure than the authors of the importance of the finding.

Plastic surgeons like examples of "ideal body parts" that give them a target for which to strive. The ideal brow probably does not exist, not just because of the subjectivity of the concept, but also because brows are subject to culture and fashion. I had a flamboyant aunt who thought she looked quite chic with her Catwoman eyebrows. In the 1930s, there was a distinct school of apex medial brows, the diametric opposite of the currently popular apex lateral shape.

Part of the benefit of brow elevation is related not to actual brow position but to the smoothing of the superior orbital rim, which makes a striking change in some eyes. As the skin becomes older, less elastic, and thinner, elevating the brows to their original position does not generate the desired effect; they must be elevated to supernormal

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levels to smooth the rim. Unfortunately, the coupling of rim smoothing to brow elevation can result in ridiculously overelevated brows. I have maintained for some time that the best candidate for a brow lift has no eyebrows. In this case, the forehead can be smoothed, the upper lid can be uncrumpled, and the brows can be painted on in a reasonable and controlled position.

The authors posit that better understanding of normal brow position will make for better surgical outcomes. It is hard to argue with knowing more about something, but I think current concepts of brow elevation and shape have been overthought. I find that the best way to determine nice brow position is to manually elevate them and see what position change, if any, looks good. This is easy. The problem is achieving the desired appearance.

I do not think that the problem of odd results with brow lifts is conceptual; it is entirely surgical. Successful brow-lift surgery is exquisitely sensitive to patient selection; in patients who fit the operation, the results can be lovely. However, brow lifts of whatever ilk have proven to be maddeningly inflexible, imprecise, and uncontrollable in the very patients who need the most care in the degree and location of elevation. Millimeter control of brow shape and position is not yet achievable, and good outcomes are usually from good preopera-

tive configurations. I remain convinced that the best shaping procedures for brows involve tweezers and pencils rather than surgery.

We agree entirely with the authors that the standard procedures, which tend to elevate medially more than laterally, are to be avoided unless one wishes to neutralize angry medial brows. The current popularity of lateral brow procedures as described by Miller et al.,⁴ Fogli,⁵ and others shows that many others agree with the authors' conclusions as well.

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REFERENCES

1. Rees T. *Aesthetic Plastic Surgery*. Philadelphia: Saunders; 1980.
2. Freund RM, Nolan WB III. Correlation between brow lift outcomes and aesthetic ideals for eyebrow height and shape in females. *Plast Reconstr Surg*. 1996;97:1343-1348.
3. Lambros V. Observations on periorbital and midface aging. *Plast Reconstr Surg*. 2007;120:1367-1376; discussion 1377.
4. Miller TA, Rudkin G, Honig M, Elahi M, Adams J. Lateral subcutaneous brow lift and interbrow muscle resection: Clinical experience and anatomic studies. *Plast Reconstr Surg*. 2000; 105:1120-1127; discussion 1128.
5. Fogli AL. A temporal lift by galeapexy: A review of 270 cases. *Aesthetic Plast Surg*. 2003;27:159-165.

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