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APPENDICES

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medial canthal angle (Figure 1-13A), *or it may be a parallel crease (PC) (a less desirable term is "outside" or "outer" fold), in which the crease runs fairly parallel to the lash margin from the medial canthus to the lateral canthus* (Figure 1-13B).

In eyelids with a NJC the crease may gently flare away from the lid margin as it approaches the lateral canthal region, forming a laterally-flared crease; this is seen sometimes in individuals naturally born with this shape,

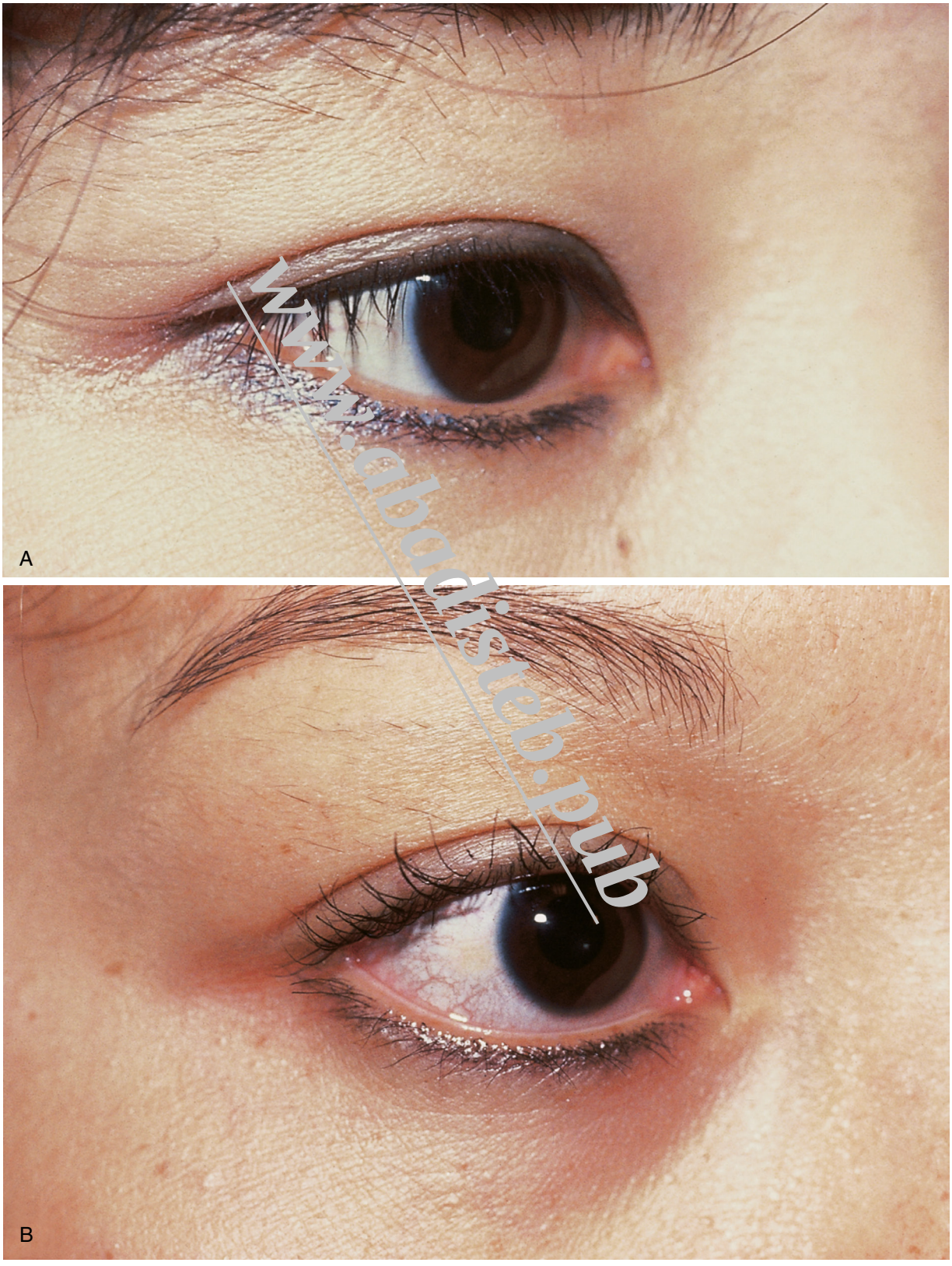

FIGURE 1-13 ■ **(A)** Asian eyelid with a nasally-joining crease. Note the merging of the crease medially into the medial upper lid fold and the relatively parallel course from the central third of the lid outward. **(B)** Asian eyelid with a parallel crease.

but not one that can be constructed predictably (Figure 1-14). More commonly the NJC configuration is such that the rest of the crease runs level and concentric to the eyelash margin from the central one-third of the eyelid laterally (Figure 1-15).

Asians rarely have a lid crease that is semilunar in shape, as is common in Caucasians (see Figure 1-4H). In a semilunar crease each end of the crease is closer to the respective lid margin than the central portion of the crease. Having a semilunar crease is by far the most frequent complaint heard from Asian patients who have had

FIGURE 1-14 ■ Nasally-joining crease with a variant form showing a lateral flare. The widest separation of the crease from the ciliary border occurs laterally, like that shown in Figure 1-11.

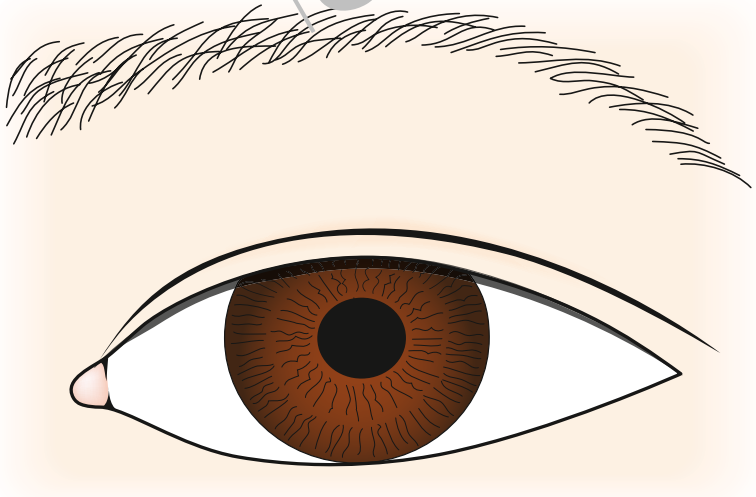

FIGURE 1-15 ■ Nasally-joining crease that runs level to the eyelash from the central third of the eyelid outward (see Figure 1-13A).

blepharoplasty performed in the United States[2] (Figure 1-16). This crease is often unnatural, high and harsh.

In the author's experience, *a high Asian crease is one located 8–11 mm from the ciliary margin*. A high crease may result if a surgeon adheres to an empiric formula for the height of the lid crease or uses techniques of supratarsal fixation in which a distance of 8 mm or more is applied without regard to ethnicity. Either method results in a crease that looks excessively high on an Asian patient. To summarize, such a regimented approach is counterproductive in Asian blepharoplasty for the following reasons:

- Asians are usually smaller in build; correspondingly, the upper tarsus measures only 6.5–8.0 mm in height on average.
- The distance between the eyebrow and the upper lid margin is smaller on Asians than on Caucasians. A crease located 10–12 mm from the lash margin would look much closer to the mid level of the upper lid than is natural (Figure 1-17).

Not only should ethnicity be a factor in blepharoplasty, but also each individual's features. When the crease is high, it is farther from the lid margin than the height of the tarsus, the surgically applied crease traverses

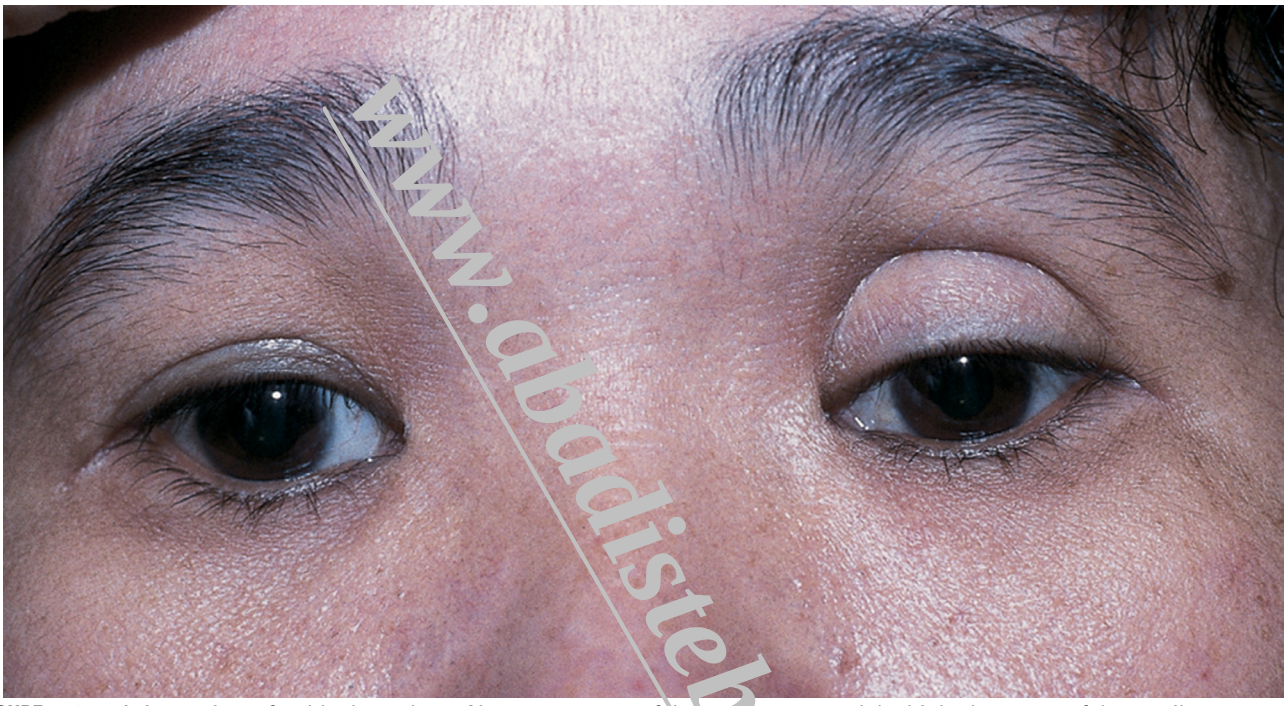

FIGURE 1-16 ■ Asian patient after blepharoplasty. Note asymmetry of the creases and the high placement of the semilunar crease.

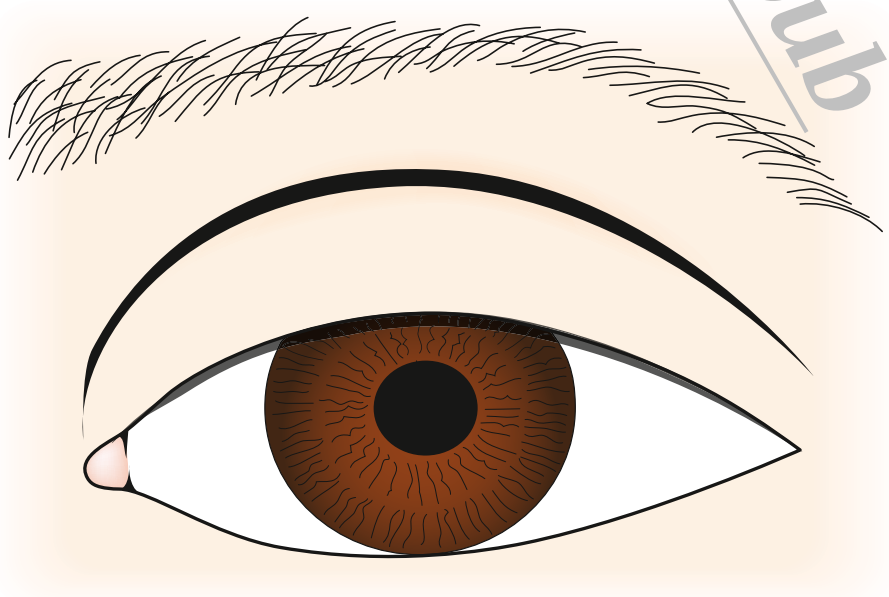

FIGURE 1-17 ■ When a semilunar crease is placed more than 10–12 mm in an Asian upper lid, the crease is in the mid level of the eyelid, halfway to the brow.

Figure 1-20 shows the cross-section of the eyebrow, closed eyelids and eye. The upper tarsus, which contains oil glands, is usually 10 mm in Caucasian and 6.5–7.5 mm in Asian women. The inferior tarsus is 3.9–4.0 mm in both. (Pink layer is levator muscle, which originates from the orbital apex, with the 10-mm length of this pink tissue above the upper tarsus being the aponeurosis segment of the levator.)

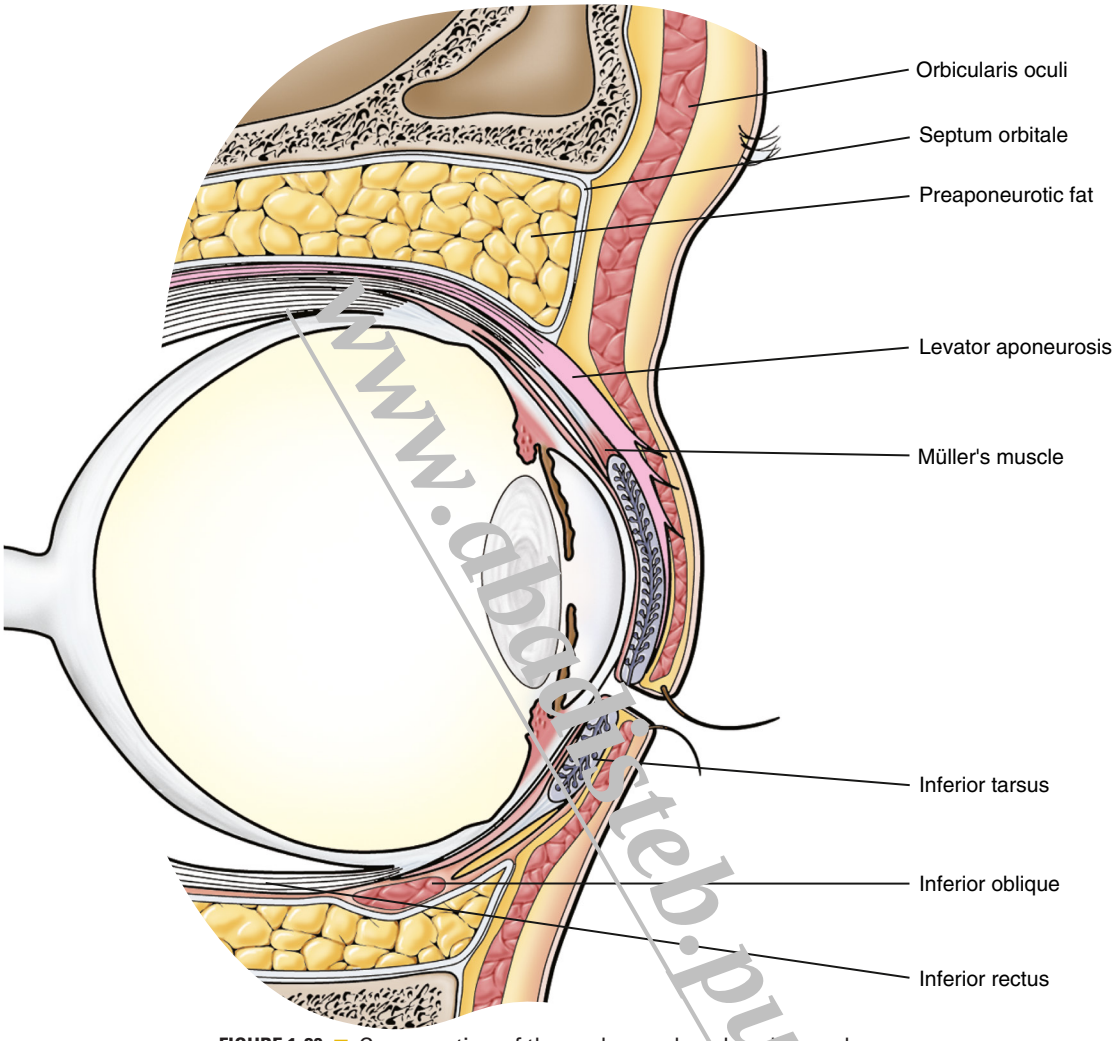

FIGURE 1-20 ■ Cross-section of the eyebrow, closed e[illegible]s and eye.

Figures 1-21 and 1-22 show the basic difference between a natural Asian eyelid without an eyelid crease versus the eyelid of a person born with one naturally. Figure 1-23 shows an upper lid with scarring involving the anterior skin–orbicularis and the preaponeurotic fat space.

The issues often raised at academic meetings in recent times are: "If one sees a crease line anywhere on the upper lid, whether it is lower than the normal insertion point of the levator aponeurosis on the upper lid skin (which normally should be precisely along the upper border of the tarsal plate), or at any point unrelated to the levator, like one or more wrinkled skin crease lines within the upper concavity of the upper lid, aren't these the eyelid crease also?" The answer is no. Technically they are just wrinkles, because they are not caused by contraction of the levator muscle. Just like a true elbow crease is formed by the biceps pulling on the forearm bones (radius and ulnar), and not simply because of any skin wrinkle left on the arm, or of skin damage or adipose tissue changes. Nor should we call a sunken sulcus (concavity) a crease that "has migrated upward". If one adheres to this biodynamic and anatomically accurate definition of an eyelid crease, there will be much less confusion among practitioners as to what a crease is and where to apply a crease, as well as what form of surgery or procedure represents a physiologic route. It is indeed curious that there are just as many medical practitioners who are unclear about this as there are patients seeking information on this very point.

The divergence between the suture methods and incisional methods lies at the core of understanding the natural mechanism of an eyelid crease, and the approaches by which this can be achieved.

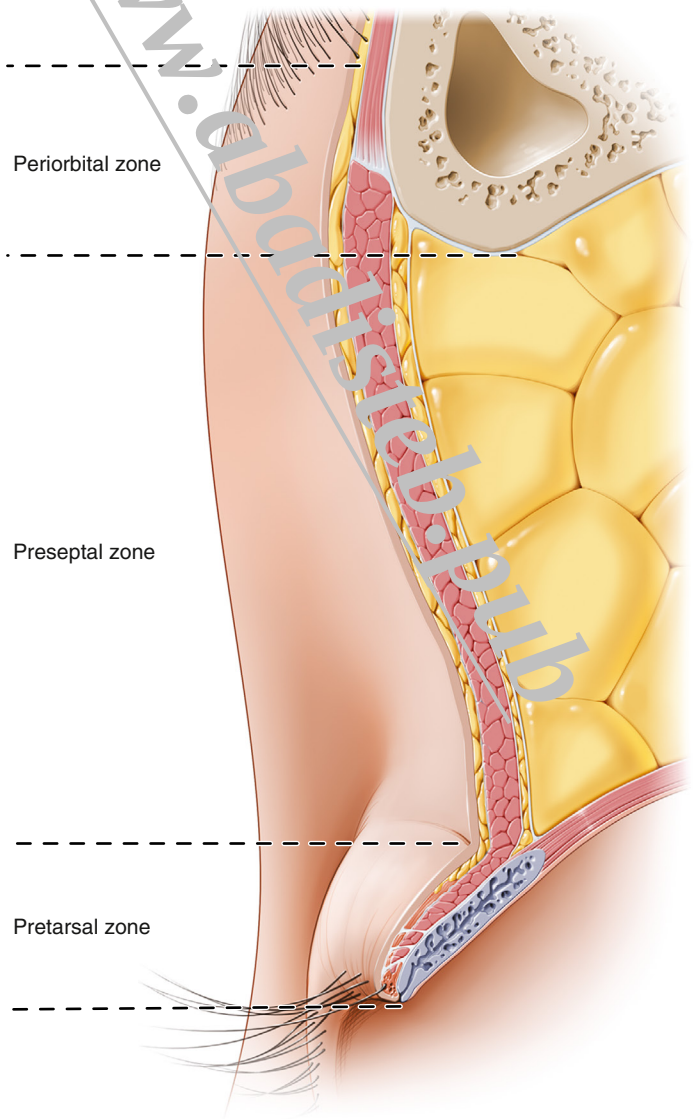

FIGURE 1-21 ■ Diagram showing a simplistic representation of an Asian upper eyelid; here it is shown as in the 50% of subjects who are without a crease (single eyelid). Zone 1 corresponds to the area in front of the tarsal plate (pretarsal zone), with its anatomic height usually being 7–8 mm. (Copyright W.P.D. Chen.)