We are in the midst of truly changing times, as patients of African descent actively embrace facial cosmetic surgery. The Eurocentric aesthetic platform is slowly evolving to embrace a more global standard of beauty. This enlightened perspective has provided much-needed breathing room for populations with skin of color to seek facial enhancement without the accompanying claims of “trying to look Caucasian.” As a result, stigma surrounding cosmetic nose reshaping has noticeably decreased in the African American community. Rhinoplasty is now more commonly perceived as a means to achieve greater harmony and balance in the face and not as a denial of ethnic heritage. In the 2006 American Academy of Facial Plastic and Reconstructive Surgery Member Survey, African Americans were more likely to seek rhinoplasty than any other facial plastic surgery procedure. Modern rhinoplasty surgeons have the unique opportunity to redefine surgical logic and classification schemes to be more anatomically sophisticated and culturally sensitive.

Gaining surgical consistency in patients of African descent has proven to be elusive, unpredictable, and challenging for many rhinoplasty surgeons. In general, rhinoplasty necessitates a thorough appreciation for key surgical anatomy as well as a high degree of technical skill. These prerequisites are increasingly important even for the skillful surgeon who is not accustomed to operating on patients of African descent, as anatomic variables may often be misleading. The author would further assert that identifying pertinent surgical anatomy and operative skill are not the only hurdles to overcome in achieving consistent favorable rhinoplasty outcomes in this population of patients. Anatomy and operative techniques can indeed be taught. Cultivating an aesthetic consciousness for Afrocentric nasal harmony, however, is a more nuanced endeavor. Here, surgical success relies on the surgeon’s ability precisely to identify anatomic variables and reconcile these anatomic realities with the patient’s expectations for aesthetic improvement and ethnic identity. To do this successfully, surgeons need not only a clear understanding of their patient’s expressed aesthetic goals but, as importantly, the knowledge and understanding of the often unexpressed cultural influences that undergird these expectations. This knowledge is amongst the most challenging aspects of rhinoplasty surgery in patients of various cultures and ethnic groups. Yet, a surgeon’s ability to “culturally connect” with the patient is essential to establishing a foundation for the creation of a shared aesthetic vision.

Much of the interruption in the progression to favorable rhinoplasty aesthetic outcomes occurs preoperatively during the consultation and nasal examination. There are 3 major areas of...
breakdown that occur before the surgeon sets foot in the operating room.

1. Patient not confident that the surgeon understands his or her aesthetic goals.
2. Flawed nasal analysis and surgical plan based on Eurocentric nasal beauty standards.
3. Unrealistic expectations held by surgeon or patient without consideration of pertinent anatomic variables and nasal skin envelope limitations.

This article aims to provide insight for and raise the comfort level of rhinoplasty surgeons operating on patients of African descent. The article highlights the significance of exploring ancestry in the rhinoplasty consultation; identifies key anatomic variables in the nasal tip, dorsum, and alar base; and reviews surgical logic that has facilitated achieving consistent balanced aesthetic outcomes in the author’s practice.

THE CULTURE CONNECTION: WHY EXPLORE ANCESTRY?

An appreciation for underlying heritage provides a link to culturally connect with prospective patients and serves as a tool for establishing realistic aesthetic goals. This cultural journey can be initiated by simply inquiring about a patient’s family background. The author asks patients “where did your family originate?” This question opens a nonthreatening pathway to establish authentic dialog regarding ancestry and ethnicity. This cultural conversation can be the ultimate tool in surgical decision making as it may shed light on how much or how little change a patient desires, or in understanding what anatomic variables a patient associates with ethnic identity, or simply positioning the clinician in the patient’s mind as someone who cares about his or her individuality.

WHO IS AN AFRICAN AMERICAN … OR BLACK AMERICAN?

Previous rhinoplasty literature has often discussed rhinoplasty in patients of African descent under the generic headings of “non-Caucasian” and “ethnic.” Whereas some reports have taken a more focused and individualized approach using the terms “African American” and “Black American,” active debate exists regarding the definition and inclusiveness of the term African American that is beyond the scope of this article.

Much of the debate focuses on who actually falls under the umbrella of African American terminology. Arguments have included diverse opinions regarding the inclusion of “white-skinned Caucasian” Africans and distinctions between Black Americans and African Americans. Being aware of the nuances of this particular debate, however, serves to heighten a surgeon’s cultural sensitivity. From a pragmatic point of view, the most common categories of so-called African Americans who may present to the office for rhinoplasty are

1. Multiethnic descendants of the transatlantic slave trade born and raised in the United States
2. Immigrants of African countries now residing with citizenship in the United States
3. Children of an African immigrant parent or parents born in the United States (Fig. 1).

African American terminology has relevance from an anatomic, geographic, and cultural perspective. Racial admixture in the African American population has resulted in a diverse array of anatomic and morphologic nasal presentations. Psychosocial impressions of ethnic identity may be quite different for a Nigerian patient who immigrated by choice to the United States compared with the patient born and raised in America with remote African ancestry originating from the transatlantic slave trade. Ironically, many American-born descendants of slavery can more aptly identify European (such as Irish, Scottish) and Native American (such as Cherokee, Powhatan) lineage, over the nonspecific African heritage that defines their ethnic identity in American culture. A large segment of the African American cultural story has been motivated by an underlying desire to reconnect the links severed by slavery to a distinct African ancestral past. The past 30 years have seen a renaissance of sorts with respect to African American economic empowerment and the influence of uniquely African American culture on global society. African American influenced music (jazz, blues, hip hop), dance (Alvin Alley American Dance Theater), and fashion have been embraced worldwide. The author’s prospective rhinoplasty patients of African descent (most commonly between 20 and 40 years old) have nurtured their sense of self-identity in this accepting, globally inclusive environment. As a result, many of these patients hold preservation of ethnic identity in high regard as they seek to enhance facial attractiveness. These are cultural nuances of which ideally an aesthetic surgeon should be aware. Such awareness will not change the technical approach, but it may facilitate an enlightened conversation with the patient regarding ideal aesthetic outcomes, and allow surgeons to fine tune surgical logic regarding the amount of change the patient will find acceptable and pleasing. The “cultural
connection” is yet another universal means to formulate a shared vision between surgeon and patient with regard to defining aesthetic ideals. Once the aesthetic vision is defined, it is up to the surgeon to formulate a surgical plan whereby the vision can be made a reality.

THE RHINOPLASTY CONSULTATION: AN EDUCATIONAL OPPORTUNITY (A TEACHING MOMENT)

The rhinoplasty consultation is an opportunity for both surgeon and patient to share and learn from each other. A major complaint that the author receives from patients of African descent who have visited other surgeons for consultation is a lack of confidence with the surgeon’s ability to internalize their desired cosmetic goals with cultural sensitivity. As discussed previously, exploring ancestry is a means to set the stage whereby surgeons can learn from their patients. In the same regard, the nasal examination is an opportunity for the surgeon to take the lead and teach, creating an educational atmosphere for patients to learn from the surgeon. In this teaching moment, the nose is separated into 3 major areas: upper, comprising the nasal bones; middle, comprising the upper lateral cartilages; and lower, comprising the paired tip lower lateral cartilages and the fibro-fatty framework of the nostrils. In a simplistic manner, the prospective rhinoplasty patients are informed that aesthetic complaints typically fall into 3 boxes. For some individuals a check can be placed in all 3 boxes, for some, 2 boxes, and others, only one. The first box includes complaints related to the overall contour of the bridge (shape, projection). The second box contains complaints associated with the width of the nose. The third box relates to concerns regarding the shape of the nasal tip and nostrils. The consultation then proceeds with surgeon and patient symbolically placing checks in the appropriate box or boxes, and together
outlining a shared aesthetic plan incorporating specific techniques to modify their particular anatomy.

KEY TECHNIQUES RELATED TO SURGICAL ANATOMY

Given the vast morphologic diversity of patients of African descent, surgical approaches and techniques must be directed toward modifying specific anatomic variables. Previous reports have offered generalized descriptions regarding surgical anatomy in the African American patient without regard for geographic differences and ethnic makeup of the study population. For instance, Stucker notes that the lower lateral cartilages are thinner and more flaccid than those found in the Caucasian race. Rohrich comments that “The African American nose typically has a short columnella, broad flat dorsum, slightly flaring alae, and a rounded tip with ovoid nares.” Ofodile and Bokhari reviewed harmonious anthropometric indices and normal baseline measurements for the African American patient. This article now comments on a few surgical concepts and technical pearls that have facilitated achieving consistent and natural results in patients of African descent.

MODIFYING THE NASAL TIP

Patients of African descent frequently present with concerns regarding the appearance of the nasal tip. Common complaints include bulbous shape, lack of tip projection, and poor tip definition. The lack of tip definition and broad, bulbous lobule appearance are often multifactorial, resulting from a combination of a thickened skin envelope, increased subcutaneous fibro-fatty tissue overlying the lower lateral cartilages, and a rounded/convex contour of the lower lateral cartilages.

Improving the appearance of the nasal tip should be approached from the perspective of contour modification and not simply narrowing. To do this reliably, it is important to comprehend the relationship between the external nasal contour and shape of the underlying tip structures. This exercise can be exceedingly difficult in the subset of patients of African descent who possess a thick skin envelope, excessive fibro-fatty subcutaneous tissue, and fragile lower lateral cartilages. By understanding the correlation between the external tip morphology and the underlying structure, the surgeon can simplify nasal tip surgery to preserve the favorable contours of the lower lateral cartilages and modify those that are unfavorable. With this goal in mind, developing a cultural sensitivity for a broad range of aesthetically pleasing anatomic contour relationships becomes important. The author wholeheartedly concurs with Toriumi’s position that “even broad tips that possess favorable shadowing can look very good.” Rhinoplasty surgeons are strongly urged to peruse the pages of ESSENCE magazine, a monthly women’s health and beauty publication, on a regular basis to familiarize themselves with the range of aesthetically pleasing nasal tip contours in women of African descent.

Ofodile and James have reported that the alar cartilages in African American patients are similar in size to those of Caucasian patients. Given the inherent morphologic diversity in African American patients, it should be further added that the full spectrum of cartilage shape, size, and thickness can be present, depending on the underlying multiethnic racial ancestry. A critical point of distinction is that in patients of African descent, it can be quite difficult to predict the shape of the cartilage framework without actual visualization. Digital palpation to assess cartilage strength is not as helpful as in individuals of European descent, due to the masking effect of the thickened skin and subcutaneous fibro-fatty tissue. In Ofodile’s study of the Black American nose, the presence of a heavy layer of fibro-fatty tissue was a consistent finding in all the subjects. The author has been surprised to find extremely weak and fragile lower lateral cartilages in patients despite a firm tip with digital palpation. Improved visualization with an external rhinoplasty approach has consequently proven to be a more reliable means to assess the anatomic contributions to external tip morphology in patients of African descent.

For external rhinoplasty, the skin envelope elevation is often performed just under the subcutaneous tissue, allowing for controlled tip debulking. A particular effort is made to preserve the fibro-fatty subcutaneous material overlying the lower lateral cartilages so that it can be used later for soft-tissue graft material, usually to soften the appearance of cartilaginous shield grafts (Fig. 2). Although patients and surgeons may harbor reservations with the transcolumellar incision of the external approach, it has been found to heal in an imperceptible manner when executed proficiently and closed with meticulous surgical technique. The author use a 6-0 polypropylene suture in a vertical mattress fashion to reapproximate the columellar skin at the peaks of the inverted-V columnella incision. The marginal incisions are closed with 5-0 fast-absorbing gut.
The prolene sutures are removed at postoperative day 6. Two-layer closure with a single deep 5-0 monocryl is recommended if significant tension is present as a result of increased tip projection from cartilaginous tip grafts.

The columellar strut is the primary workhorse for nasal tip modification in patients of African descent. As an essential support graft, the columellar strut is placed to offset intrinsic alar cartilage weakness. A particular effort is made to harvest a strong resilient cartilage graft from the maxillary crest to be used for the columellar strut (Fig. 3). The vestibular skin adjacent to the intermediate and medial crura is elevated in a limited fashion to create a space for burying the fixation stitches. Multiple 5-0 PDS stitches in a horizontal mattress fashion are used to secure and stabilize the columellar strut. Fixation of the columellar strut between the medial crura provides a stable foundation for a “ground up” approach to improving tip contour and projection.

Much attention has been placed on the presence of a supratip break point as a marker for a balanced elegant relationship between tip and dorsum. It should be stressed that preservation of the infratip breakpoint has equal relevance in achieving a natural unoperated-appearing outcome. Care should be taken to place shield grafts in a manner that does not obliterate the infratip break point. The author recommends preserving the fibro-fatty tissue of the interdomal space when present and leaving it attached inferiorly (Fig. 4A). This tissue can be repositioned as a pedicled overlay soft tissue graft to improve the contour of the infratip region (Fig. 4B).

MODIFYING THE NASAL DORSUM

The majority of complaints in patients of African descent with regard to the nasal dorsum center on the presence of wide nasal bones, dorsal underprojection, and lack of aesthetic continuity.
between the brow and tip. In occasional cases, there is a dorsal convexity that may benefit from reduction (Fig. 5A, B). Patients of African descent commonly present with unfavorable nasal bone architecture for osteotomy induced narrowing. Although there is significant diversity in the thickness and shape of the nasal bones, very few approach a classic leptorrhine configuration even in cases where there is recognized European ancestry. The pyriform aperture is often oval in shape with short, thickened nasal bones. As a result, lateral osteotomy tends to have little visual impact on narrowing the bony vault.

The author spends a fair amount of time with the patient, reviewing the shape of the dorsum and its relationship with a continuous brow-tip aesthetic line. Female patients of African descent are usually aware of the impact of contour shadowing and highlighting, as a result of their familiarity with makeup techniques, to give the illusion of a more refined bridge. A high dorsum is not essential for a continuous brow-tip aesthetic line. The author has several patients with a low, flat bridge who have a pleasing, elegant brow-tip aesthetic line. In this subset of patients, dorsal augmentation is indicated only as a measure to maintain a harmonious profile line in situations when tip projection has been surgically increased. Ideal dorsal height is ultimately dependent on tip projection. It is widely appreciated that nasal harmony features tip projection being slightly higher than the dorsum along with the presence of a slight supratip break. As Stucker states, “a nasal dorsum that is augmented beyond what the tip projection can accommodate loses its aesthetic harmony.”

Conservative dorsal augmentation has the dual benefit of creating the appearance of a more contoured bridge while establishing continuity of the brow-tip aesthetic line. Onlay grafts are fashioned with an aesthetic goal of maintaining a harmonious profile line. Excessive dorsal elevation in patients of African descent disrupts nasal harmony, as the high bridge typically falls outside of the normal range of ethnic variation in patients with otherwise broad facial features.

For primary rhinoplasty in patients of African descent, the dorsum is rarely elevated greater than 3 mm beyond the preoperative baseline. Although autologous material is considered safer, the amount that can be normally harvested without using autologous rib cartilage is often inadequate for the extent of dorsal augmentation required. Expanded polytetrafluoroethylene (ePTFE) is the alloplastic material of choice for dorsal augmentation.

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**Fig. 5.** (A) Preoperative profile view of patient of African descent with dorsal convexity. (B) Postoperative profile view following reduction rhinoplasty.
The author has found it to be an aesthetically exceptional material, with ease of sculpting, excellent blending with the dorsal contour, and a low complication rate. Conrad and colleagues recently reported a 1.9% incidence of biologic complications such as soft tissue reaction, infection, and extrusion in a 17-year retrospective review. The author most often uses ePTFE sheeting (ePTFE-SHEET-061 [Implantech Associates, Inc, Ventura, CA]) to elevate the bridge and autologous septal cartilage for tip cartilage grafting. The ePTFE sheeting is carved in a manner to create an onlay implant encompassing the full length of the dorsum from the nasion to the region cephalad of the supratip breakpoint. Osteotomy is reserved for those situations where the nasal bones are long and more vertically oriented or in situations, as Rohrich defines, where the width of the bony vault is greater than 80% of the intercanthal width.

MODIFYING THE NOSTRILS (ALAR FLARE) AND NASAL BASE

The majority of patients of African descent presenting for rhinoplasty will complain that their nostrils are too wide or that “my nose spreads when I smile.” There needs to be renewed thinking for both the patient and the surgeon with regard to surgical modification of the nostrils and nasal base. Professional and popular culture has programmed patients and many surgeons to believe that an aesthetically pleasing rhinoplasty outcome should include reduction of alar flare. Traditional Eurocentric nasal aesthetics has promoted that the lateral attachment of the ala to the cheek should lie within the vertical line drawn through the medial canthus. As a surgical goal, Rohrich states that by bringing the elements of the nose to lie closer to this boundary, nasal features can be enhanced without altering ethnic appearance. The author disagrees with this surgical logic, particularly for patients of African descent. Investigators have demonstrated that the normal index for African American patients is actually a nostril attachment to the face lateral to the medial canthus. Surgeons must be sensitive to this Afrocentric anatomic variable and avoid attempting to surgically modify African American nasal morphology to fit into a Caucasian aesthetic standard. It is also important to be sensitive to the aesthetically harmonious relationship between the tip lobule and alar rims to avoid creation of unnatural shapes as a result of surgery. For instance, McCurdy stresses that extreme caution is indicated in noses exhibiting a wide lobule in association with a wide alar base. In such cases, alar reduction often results in a rectangular or square configuration of the lobule that is aesthetically less desirable than the original lobular shape.

Excessive nostril narrowing in patients of African descent is the most easily recognized tell-tale sign of nasal disharmony (Fig. 6). The efficacy of alar base modification is also debatable because significant tissue removal does not necessarily guarantee a long-term improvement in flare.
Fig. 7. This patient underwent external approach rhinoplasty with suture tip contouring, and ePTFE dorsal augmentation without direct modification of the nostrils. (A, C, E, G) Preoperative views; (B, D, F, H) 6-month postoperative views. Note preoperative horizontal nostril orientation.
most cases with appropriate modification of the tip and dorsum, Weir excision type alar narrowing becomes unnecessary.

To broaden the aesthetic perspective of prospective rhinoplasty patients in reference to alar modification, a series of “before and after” results for cases in which the nostrils were not manipulated in a direct manner is reviewed. Thus allowing illustration of the pleasing effects of modifying tip projection and its secondary beneficial impact on nostril shape/width (Fig. 8). The author asserts that direct alar rim and base modification is overused in patients of African descent and contributes only in a limited capacity, if at all, to an improved long-term aesthetic outcome.

When indicated, successful reduction of the wide nasal base and alar flare is primarily dependent on sound clinical judgment and a culturally sensitive aesthetic sensibility. The author has found Porter’s simplified nostril orientation classification system to be a clinically useful tool for determining which patients of African descent are more likely to have a favorable outcome with alar wedge resection narrowing. In the study, 3 categories of nostril orientation were described: inverted, vertical, and horizontal (Fig. 9). In the author’s experience, those patients with a horizontal nostril orientation benefit from alar wedge resection and nasal base reduction in a substantive way. The horizontal orientation lends itself to more predictable surgical reduction. Lateral alar wedge excisions in patients with an inverted nostril orientation tend to accentuate the inverted configuration in an unnatural way. In patients of African descent with a vertical nostril orientation, additional narrowing is not necessary. In patients with a horizontal nasal base without alar flare, resection of the nostril sill with medialization of the ala is an effective technique, as described by Stucker and colleagues. In patients with horizontal base with alar flare, resection of the sill along with wedge excision of alar flare can be achieved as described by Foda. Caution is necessary in noses lacking a well-defined nostril sill, because scarring and notching are potentially more problematic.

AN AVOIDABLE COMPLICATION: NASAL DISHARMONY

An abundance of scientific rigor has been placed on the integral aspect of nasal analysis as a key to successful rhinoplasty. In rhinoplasty surgical planning, nasal analysis has primarily focused on linear surface measurements, photographic review, and clinical nasal examination. As we move further into the 21st century, a modern approach to rhinoplasty should feature a more sophisticated appreciation for nasal contour aesthetics beyond anthropometric linear measurements.

In patients of African descent, the author sees iatrogenic nasal disharmony as the most common complication of rhinoplasty. A review of the previous rhinoplasty literature focusing on patients of African descent illustrates many examples of less than optimal aesthetic outcomes. In many instances, the preoperative photograph is more balanced aesthetically than the postoperative result. This nasal disharmony is most frequently seen as an overly narrowed dorsum packaged with a wide tip; overly narrowed nostrils associated with a wide tip lobule; or an excessively narrowed tip, dorsum, and nostrils in a patient with otherwise broad/full ethnic features. Most of these poor aesthetic outcomes could easily be avoided by adopting less of a surgical emphasis on narrowing. The author’s gut feeling is that poor outcomes are more often a result of poor aesthetic judgment rather than failures in surgical technique. Surgeons must undergo a mental paradigm shift in rhinoplasty logic for patients of African descent. Low, flat, and broad can indeed be beautiful. Surgeons must keep in mind that a wide nose is not inherently unattractive. However, one can very effectively make it unattractive by artificially packaging wide features with overly narrow modifications, thus creating nasal disharmony and imbalance. Modern rhinoplasty should be

![Fig. 9. Nostril Axis of Orientation classification. (A) inverted, (B) horizontal, (C) vertical.](image-url)
undertaken from a mindset of maintaining or establishing pleasing surface contour relationships.

SUMMARY
Rhinoplasty surgeons have a unique opportunity to adopt a modern approach to rhinoplasty through redefining surgical logic to be more anatomically sophisticated and culturally sensitive. Technical expertise is not the most significant hurdle to overcome in achieving favorable rhinoplasty outcomes in patients of African descent. Cultivating a renewed aesthetic consciousness for Afrocentric beauty aligned with technical competence is paramount. Exploring ancestry provides a pathway to “culturally connect” with prospective patients, and serves as a tool for establishing a shared aesthetic vision between patient and surgeon.

REFERENCES