

Chapter 5. Muscles of the Nose

- The musculature of the nose may be broadly divided by function into elevators, depressors, compressors, and dilators (Figure 5-1).
- The *procerus*, an elevator, is a small pyramidal muscle that lies deep to the superior orbital artery and nerve. The procerus arises from the fascia covering the lower part of the nasal bones and upper part of the lateral nasal cartilage, inserts into the skin over the lower part of the forehead between the two eyebrows (the fibers of the procerus decussate with those of the *frontalis*), and functions to pull the skin between the eyebrows inferiorly assisting in flaring the nares.¹
- The *levator labii alaeque nasi* arises from the frontal process of the maxilla alongside the nose. Part of this muscle inserts into the nasal skin and the upper edge of the lower lateral cartilage, but the majority passes obliquely downward to the skin and muscle of the upper lip. The nasal portion of this muscle serves to widen the nares, and the labial portion serves to depress the nasal tip.^{1,2}
- The *nasalis* is a sphincter-like muscle that originates from the maxilla near the canine fossa and divides into two portions: an alar portion and a transverse portion (Figure 5-2).
 - The alar portion goes to the nostril and enters the skin across the rear circumference of the lateral crus. It functions to expand the nostril across its alar portion.
 - The transverse portion of this muscle goes upward to insert on the upper edge of the upper lateral cartilage and the lower edge of the nasal bone. It acts to compress the nose across its transverse portion.
- The *depressor septi* is a small, paired muscle located on either side of the nasal septum. It runs between the

buccal mucosa and musculature of the upper lip. Some patients with depressor muscle hyperactivity will complain about drooping of the nasal tip, elevation and shortening of the upper lip, and increased exposure of the maxillary gums when smiling. An “overactive” *depressor septi* muscle that contributes to drooping of the nasal tip is diagnosed by the “smile test” (ie, the nasal tip drops slightly when the patient smiles). Division of this muscle has been described as a treatment for the patient with a positive smile test.³

- The only dilator of note is the *dilator naris*. Its anterior portion originates on the alar cartilage and inserts in the skin near the margin of the nostril. Its posterior portion is beneath the *quadratus labii superioris* muscle. It also originates from the alar cartilages as well as the margin of the nasal notch of the maxilla and it inserts in the skin near the margin of the nostril.
- The *orbicularis oris* originates on the maxilla and mandible, inserts in the skin encircling the lips, and functions to purse the lips.

REFERENCES

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3. Rohrich RJ, Huynh B, Muzzaffar AR, et al. Importance of the depressor septi nasi muscle in rhinoplasty: Anatomic study and clinical application. *Plast Reconstr Surg.* 2000;105:376.

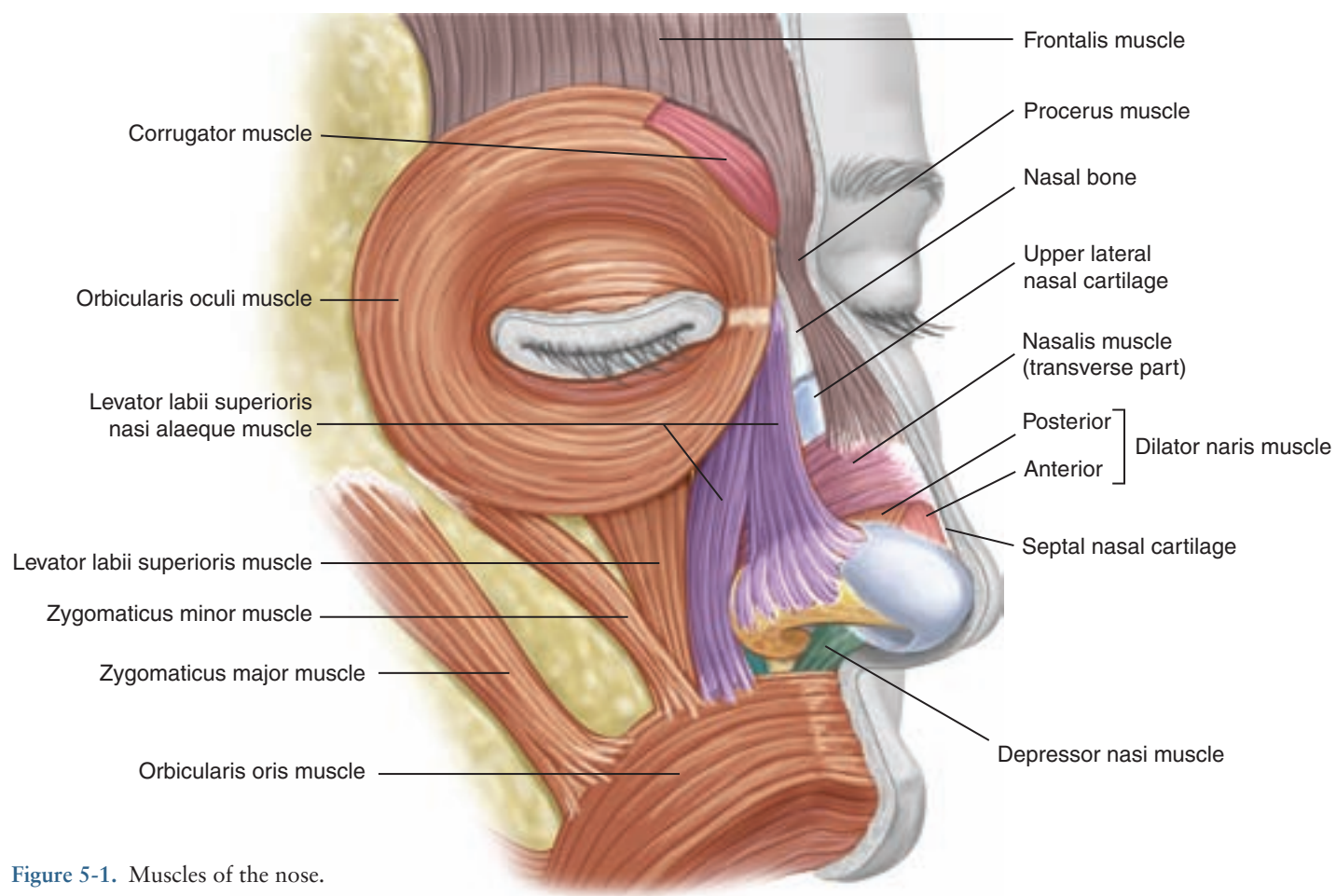


Figure 5-1. Muscles of the nose.

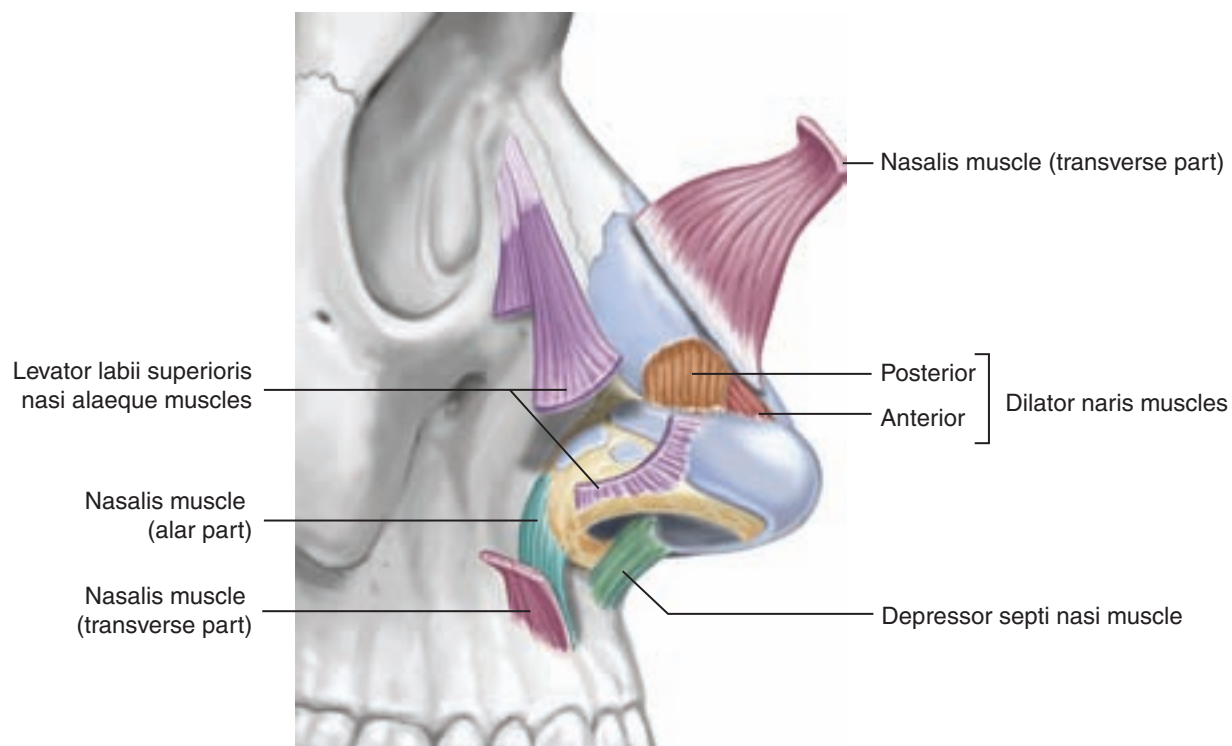


Figure 5-2. Deeper muscles of the nose with certain muscles reflected.