

# Chapter 4. Innervation of the Nose

- Innervation of the nasal mucosa can be divided along an oblique line, using posterior and superior to anterior and inferior.
  - The anterosuperior mucosa is predominantly supplied by the ophthalmic nerve, the first division of trigeminal nerve (CN V), via anterior and posterior ethmoidal nerves.
  - The posteroinferior mucosa is predominantly supplied by the maxillary nerve, the second division of the trigeminal nerve (CN V), via the nasopalatine nerve medially and the greater palatine nerve laterally.
- Externally the dorsum is supplied by the ophthalmic division of the trigeminal nerve, via the infratrochlear nerve and a branch of the anterior ethmoidal nerve (Figure 4-1).
- The anterior ethmoidal nerve, a branch of the nasociliary nerve, travels vertically within a groove on the internal surface to provide sensation to the lateral nasal vestibule.
- The external alae are innervated via branches of the infraorbital nerve off the maxillary division of the trigeminal nerve.
- Smell is transmitted via olfactory nerves, which run within the superior portions of the septum and lateral walls of the vestibule (Figures 4-2 and 4-3). The individual nerves pass through the cribriform plate along the floor of the anterior fossa.<sup>1,2</sup>

## REFERENCES

1. Hollinshead W, Rosse C. *Textbook of Anatomy*. 4th ed. Philadelphia, PA: Harper and Row; 1985:980–981.
2. Hollinshead WH. *Anatomy for Surgeons: The Head and Neck*. 3rd ed. Philadelphia, PA: J.B. Lippincott Company; 1982:245–248.

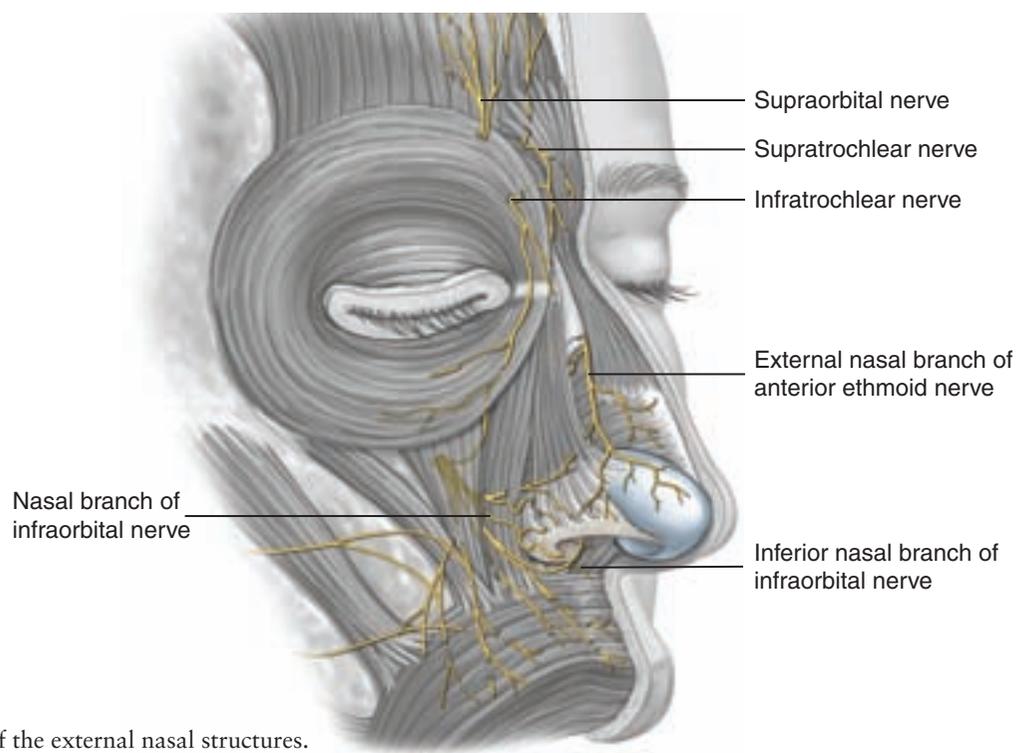


Figure 4-1. Innervation of the external nasal structures.

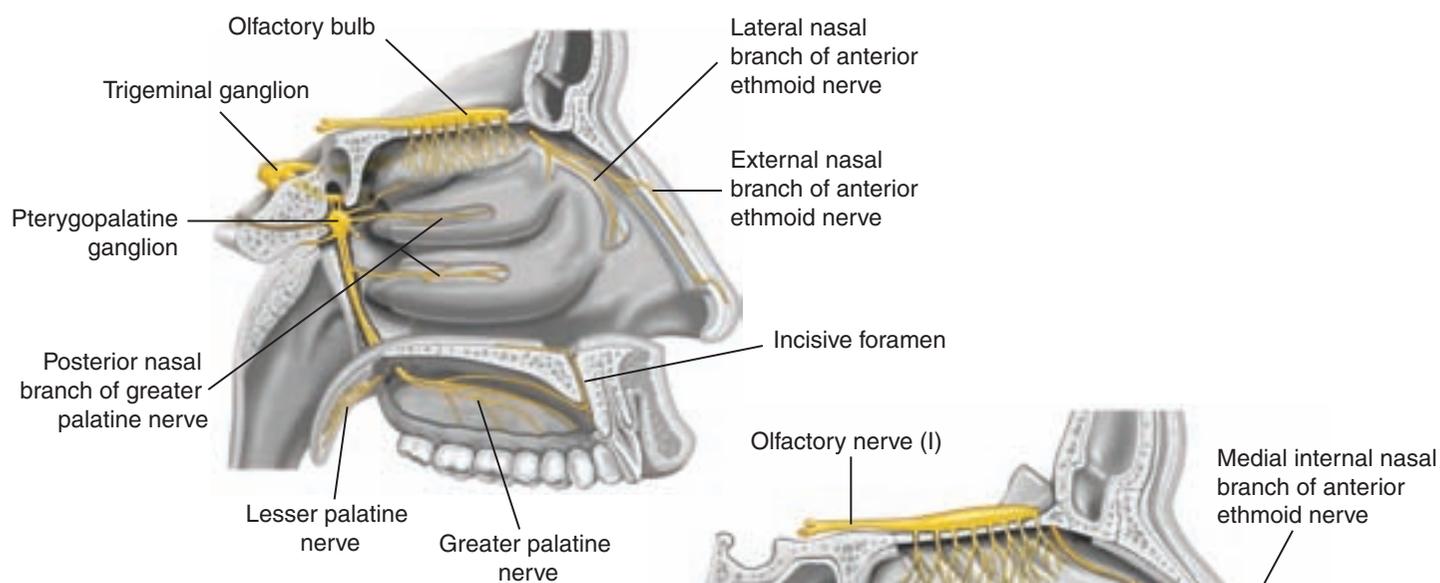


Figure 4-2. Innervation to the conchal septum.

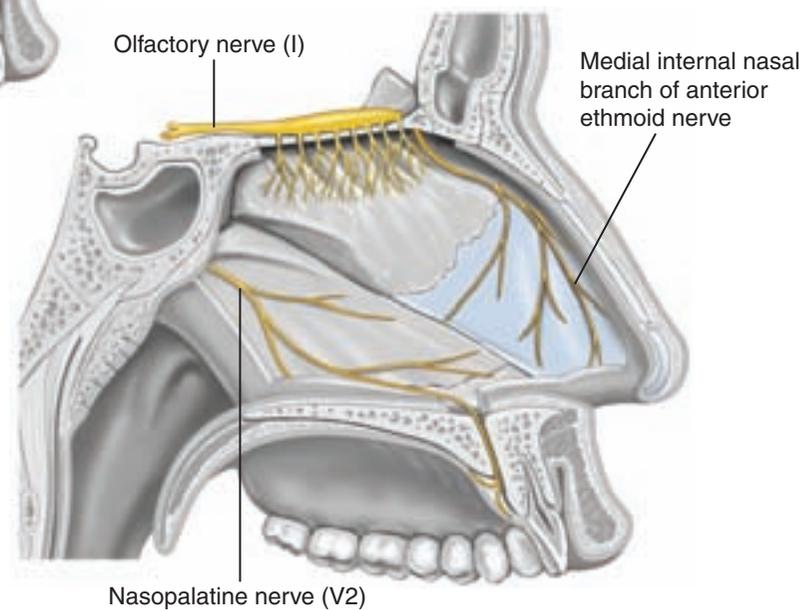


Figure 4-3. Innervation to the nasal septum.