

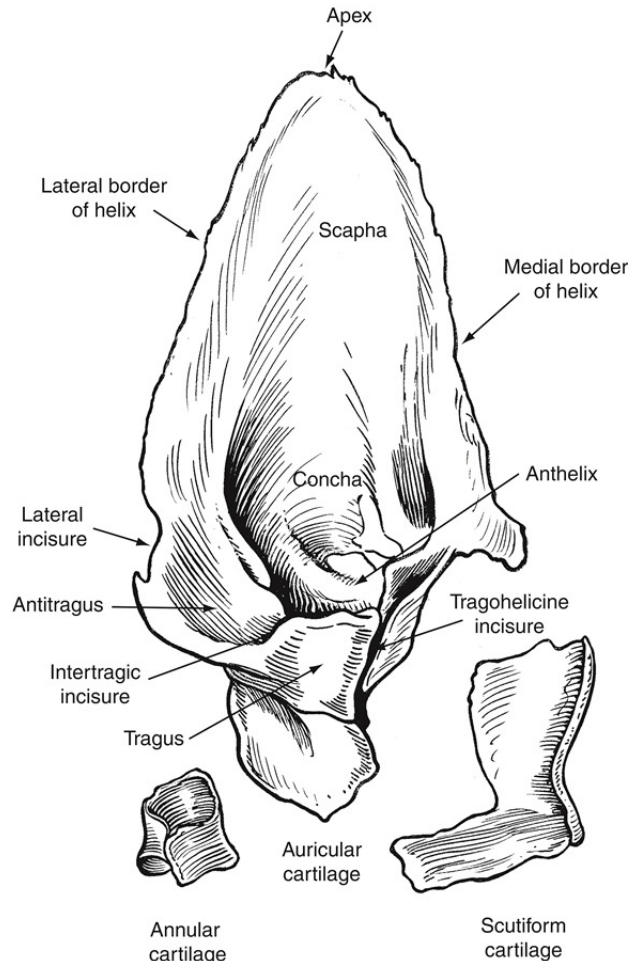
# Muscles of the Dogs Ear

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October 9, 2013

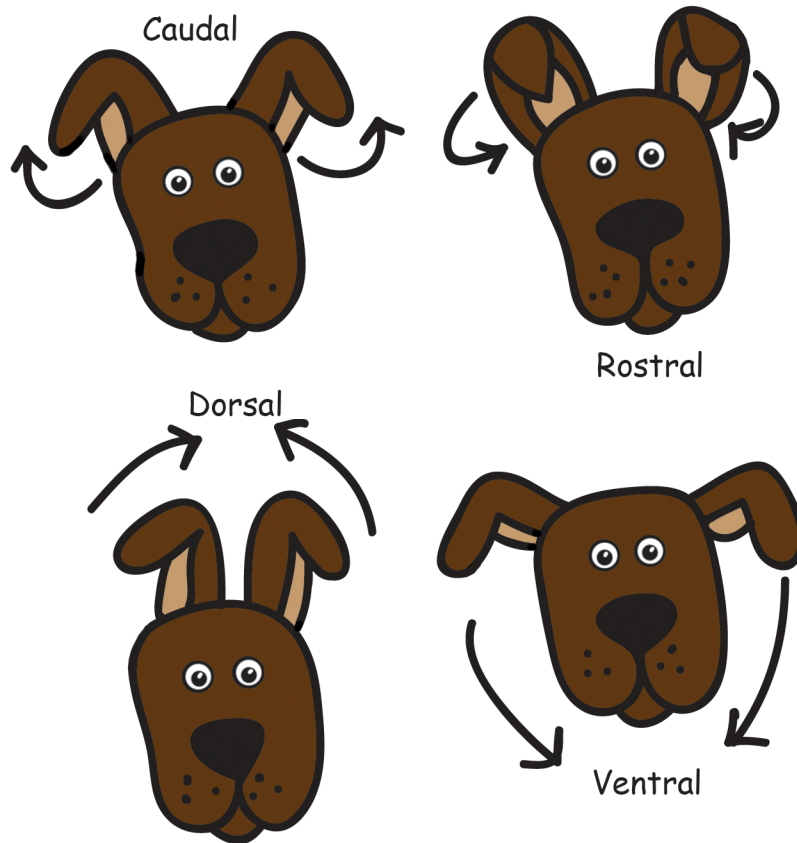
The external ear of the dog is composed of the auricle or pinna and the external auditory meatus or ear canal. A dozen separate muscles, collectively called auricular muscles, control the movement of the pinna. These muscles cause perking, turning, raising and lowering of the ears – allowing for a complex array of movement combinations. The dogs' ability to move their pinna is important for the purposes of sound gathering as well as for communicating to others how they are feeling physically and emotionally.

The auricle or pinna is composed of a combination of both elastic cartilage and hyaline annular cartilage. The shapes of the auricular cartilages differ widely from breed to breed which allows for the many variations in the size and shape of the pinna seen among dogs. The three basic pinna shapes are erect and V-shaped, semi-erect and lobate or non-erect and lop eared in appearance. No matter what size and shape, the pinnae of a dog are highly innervated and have a rich blood supply. Nerve supply includes branches from the second cervical n., facial n., trigeminal n. and vagus n. Blood supply includes branches of external carotid artery and caudal auricular artery – lateral, medial and internal branches.



The auricular muscles are divided into four main groups of muscles – a caudal group, a dorsal group, a rostral group and a ventral group. These groups of muscles attach to a flat, L-shaped sesamoid cartilage located rostradorsal to the external ear canal – the scutiform cartilage. The tensor action of these different groups of auricular muscles on the scutiform cartilage cause the following movements:

- the caudal group rotates the ear laterally, moves the auricular opening backward/caudal
- the dorsal group elevates the ear, moves the scutiform cartilage medially
- the ventral group depresses the ear, draws it down
- the rostral group rotates the ear medially, moves the auricular opening forward/rostral



The caudal group of auricular muscles consist of these individual muscles:

- cervicoauricularis superficialis m.
- cervicoauricularis medius m.
- cervicoauricularis profundus m.
- cervicoscutularis m.

The dorsal group is comprised of:

- occipitalis m.
- interscutularis m.
- interparietoscutularis m.
- interparietoauricularis m.

The ventral group is comprised of:

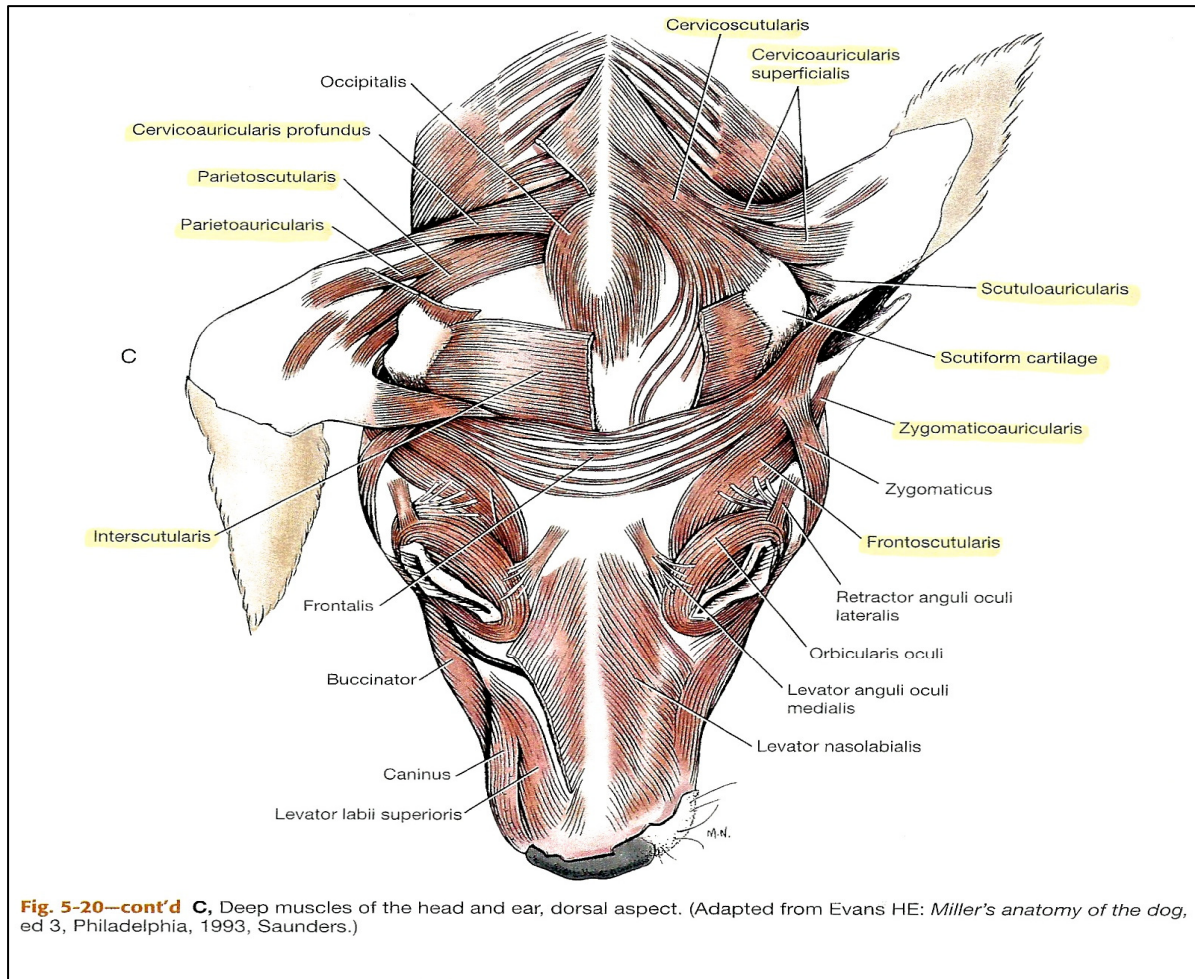
- parotidauricularis m.
- mandibuloauricularis m.
- zygomaticauricularis m.

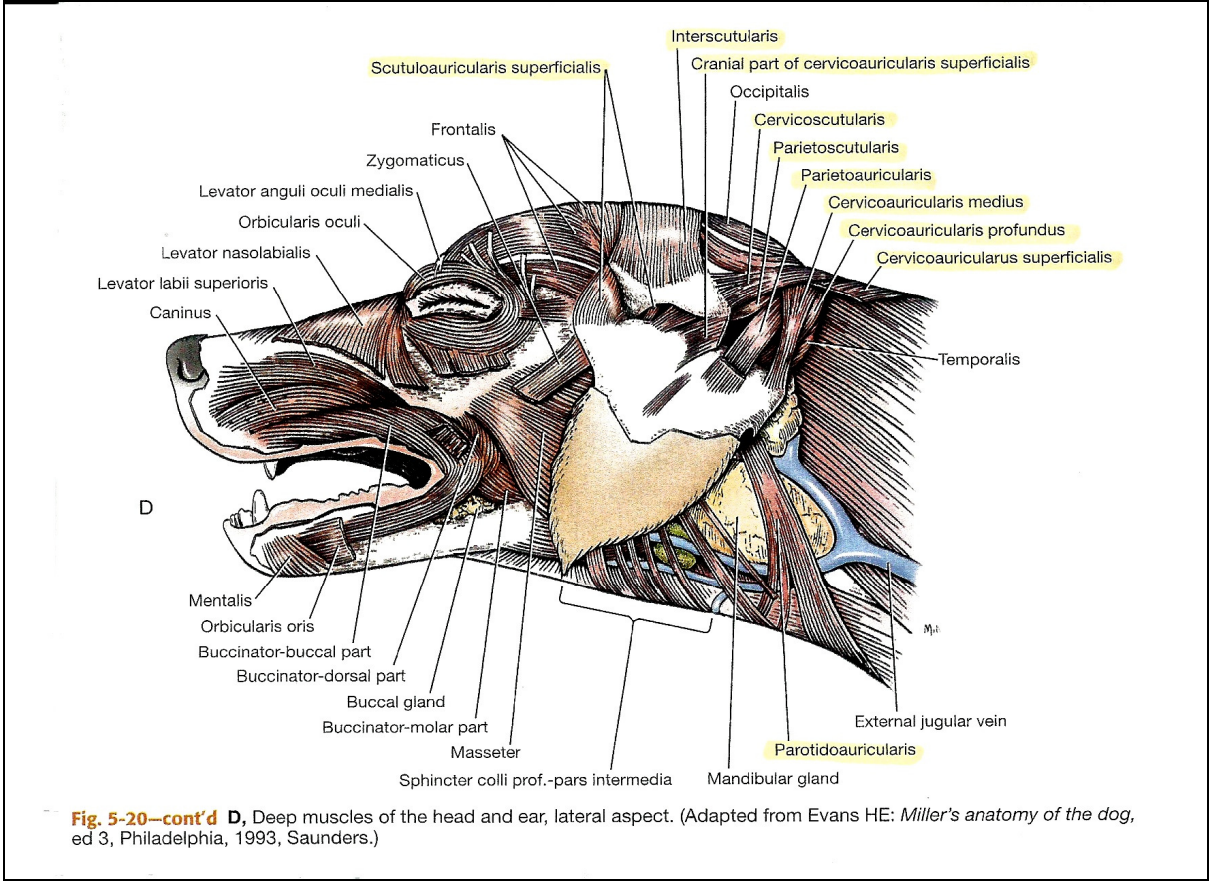
The rostral group consists of:

- frontoscutularis m.
- scutuloauricularis superficialis m.
- scutuloauricularis medialis m.
- scutuloauricularis dorsalis m.

The names of the muscles themselves describes their origin and insertion points.

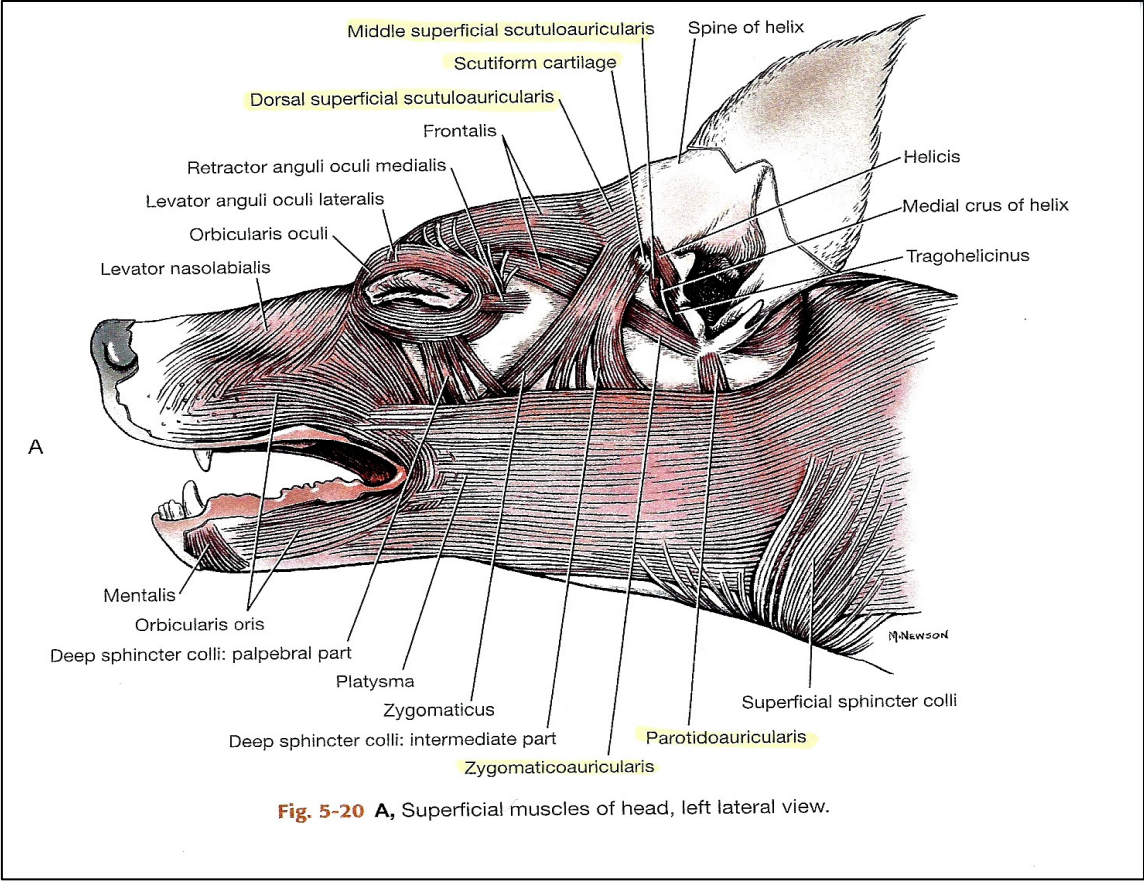
The following dissection diagrams give reference to where these muscles are situated anatomically:

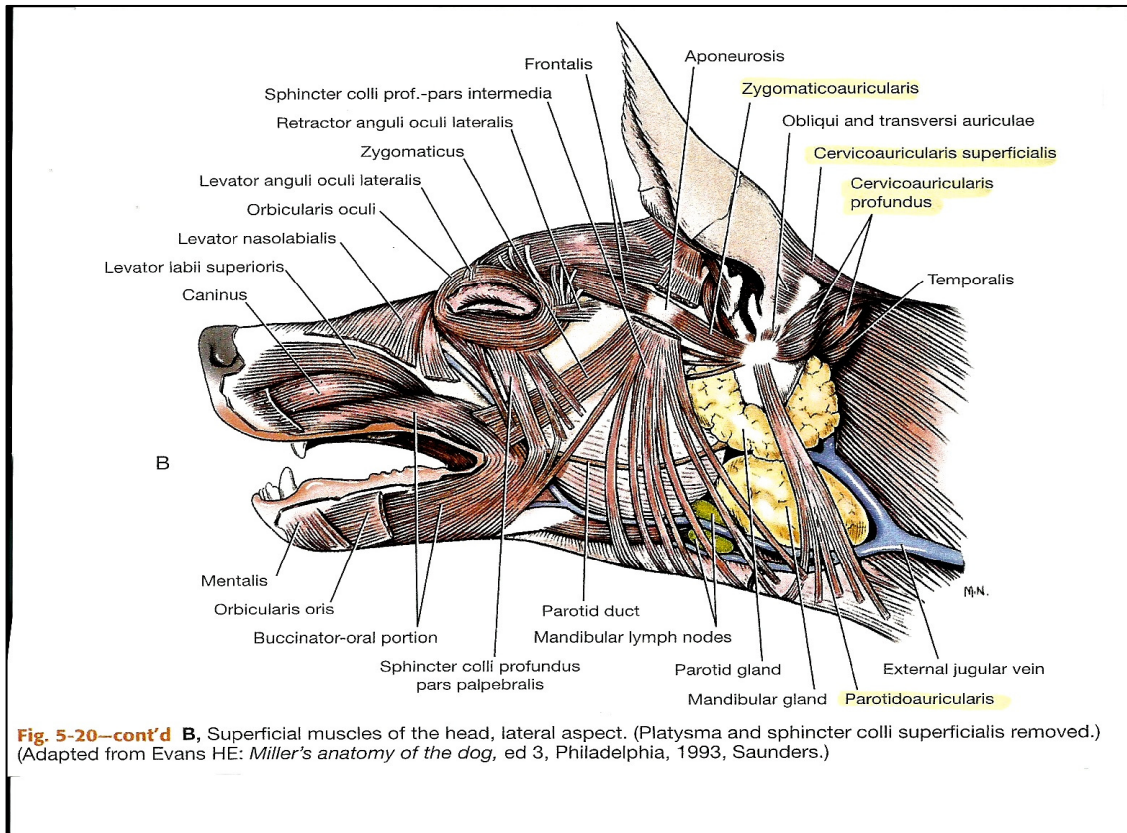




**Fig. 5-20—cont'd D**, Deep muscles of the head and ear, lateral aspect. (Adapted from Evans HE: *Miller's anatomy of the dog*, ed 3, Philadelphia, 1993, Saunders.)







**References:**

1. Budras, McCarthy, Fricke, Richter: *Anatomy of the Dog*. 5<sup>th</sup> edition, Hannover, 2007, Schlutersche.
2. Evans HE: *Miller's anatomy of the dog*. 3<sup>rd</sup> edition, Philadelphia, 1993, Saunders.
3. Heine PA: *Anatomy of the ear – Veterinary clinics of North America small animal practices*. 2004, p.379-395, PubMed.

**Figures 5-20 A thru D sourced from: (all rights reserved – for copy permission beyond this assignment contact [www.elsevier.com](http://www.elsevier.com) under Customer Support then Obtaining Permissions)**

3. Evans, deLahunta: *Guide to dissection of the dog*. 7<sup>th</sup> edition, St. Louis, 2010, Saunders.