

CVM 6903, Anatomy I

Gross Anatomy Objectives, Readings & Terms List

Dissection of Head and Brain

OBJECTIVES:

NOTE: 'Dissection' objectives colored blue are shared (relisted) with 'Application' objectives associated with the head and brain. **All objectives and dissection terms listed are testable on quizzes and exams.**

- D7.1** Identify the terms associated with the eye, eyelids, and 3rd eyelid; summarize the flow of tears within the lacrimal duct system. Identify all layers of the eyeball and provide a simple summary of the general function of these structures.
- D7.2** Identify the listed salivary glands and describe their point(s) of drainage.
- D7.3** Identify all terms associated with the oral and pharyngeal regions and summarize the normal path of air and food through this region; describe how this information is clinically significant.
- D7.4** Identify the parts of the larynx; describe the region of the glottis and the functional significance of the cricoarytenoideus dorsalis m.
- D7.5** Identify the muscles of mastication and categorize them as opening vs. closing the jaw.
- D7.6** Identify and describe the locations of the muscles of the tongue and those attaching to the hyoid apparatus.
- D7.7** Identify the main arterial branches and venous drainage of the head.
- D7.8** Identify the listed structures associated with the brain, spinal cord, cranial nerves and other nerves of the head.

REQUIRED READING:

eBook: [*Dissection Lab Guide for Dog & Cat Anatomy*](#): "Chapter 7: Dissection of Head and Brain"
(Parts 1, 2, 3, 4, 5, & 6)

SUPPLEMENTAL READINGS:

Dissection of Head and Brain: DG 7 (pp. 225-260 and 263-287); DG 8 (pp. 236-275 and 277-313)

Notation: DG: *Guide to Dissection of the Dog*, 7 (7th) edition and 8 (8th) edition

TERMS

Term notations:

- Note that some terms are followed by a letter: "p" for palpable/observable structures.

Additional note: In general, the body is bilaterally symmetrical, i.e., unless otherwise noted, similar structures are found on both right and left sides and right/left sides of the same organ are similar.

Abbreviation key:

aka = also known as

a. = artery; **aa.** = arteries (plural)

ln. = lymph node; **lnn.** = lymph nodes (plural)

CN = cranial nerve

m. = muscle; **mm.** = muscles (plural)

n. = nerve; **nn.** = nerves (plural)

v. = vein; **vv.** = veins (plural)

Dissection of Head and Brain: TERMS

SUPERFICIAL STRUCTURES of the HEAD

- philtrum (p)
- cutaneous m.
 - platysma m.
- lips (p)
- superior & inferior palpebrae (p)
 - palpebral fissure
 - medial & lateral palpebral commissures (p)
- conjunctival sac
 - palpebral conjunctiva
 - bulbar conjunctiva
 - fornix
- lacrimal puncta (dorsal & ventral)
- opening of the nasolacrimal duct
- plica semilunaris (aka third eyelid, nictitans, nictitating membrane) (p)
- auricle (pinna) (p)
 - auricular cartilage (p)
 - external ear canal (p)
 - marginal cutaneous sac (p)
- auricular muscles
- mandibular lymph nodes (p)

ORAL CAVITY, TONGUE, AND SALIVARY GLANDS

- vestibule
- oral cavity proper
- tongue (root, body, apex)
 - papillae
 - lingual frenulum
- sublingual caruncle
 - sublingual fold
 - salivary ducts
- mandibular salivary gland (p)
- sublingual salivary gland (monostomatic gland)
- parotid salivary gland
 - parotid duct
- lingual molar salivary gland (cat only) (*previously referred to as the buccal salivary gland and/or buccal (molar) salivary gland in lab materials and feline supplemental notes*)
- zygomatic salivary gland - *ID on demo*
- palate (hard and soft)
 - incisive papilla

PHARYNX

- oropharynx
 - palatoglossal arch (aka palatoglossal fold)
 - palatine tonsil
 - semilunar fold
- nasopharynx
 - palatopharyngeal arch (aka palatopharyngeal fold)
 - opening to the auditory tube
- laryngopharynx
 - pharyngoesophageal limen (border)

esophagus - *also Chapters 3 & 4*
trachea (p) - *also Chapters 3 & 4*
tracheal cartilages ('tracheal rings')

LARYNX (p)

epiglottic cartilage (aka epiglottis)
thyroid cartilage (p)
cricoid cartilage (p)
cricothyroid ligament
arytenoid cartilage(s)
vocal process
vocal fold (dog)/vocal ridge (cat)
laryngeal ventricle (ID in dog, absent in cat)
glottis

LARYNX: INTRINSIC MM.

cricoarytenoideus dorsalis m.
cricothyroid m. (aka cricothyroideus m.)

MASTICATION MM.

temporalis m. (temporal m.) (p)
masseter m. (p)
digastricus m.

LINGUAL MM.

styloglossus m.
hyoglossus m.
genioglossus m.

HYOID MM.

mylohyoideus m.
geniohyoideus m.

SUPERFICIAL VEINS of the HEAD

external jugular v. - *also Chapters 3 & 4*
linguofacial v.
lingual v.
facial v.
maxillary v.

NERVES of the HEAD

facial nerve (CN VII)
ventral buccal n.
dorsal buccal n.
auriculopalpebral n.
mandibular n. (branch of trigeminal nerve (CN V)) - *ID on demo*
lingual n. - *ID on demo*
inferior alveolar n. - *ID on demo*
mylohyoid n. - *ID on demo*
maxillary n. (branch of trigeminal nerve (CN V)) - *ID on demo*
infraorbital n.
vagosympathetic trunk - *also Chapters 3 & 4*
vagus nerve (CN X)
cervical sympathetic trunk
cranial cervical ganglion
hypoglossal nerve (CN XII)
mental nn.

ARTERIES of the HEAD

common carotid a. (left & right) (pulse (p)) - *also Chapters 3 & 4*

internal carotid a. (cat: partially absent)

carotid sinus

external carotid a.

occipital a.

lingual a.

facial a.

superficial temporal a. - *ID on demo*

maxillary a. - *ID on demo*

inferior alveolar a. - *ID on demo*

external ophthalmic a. - *ID on demo*

infraorbital a.

EYE and ASSOCIATED STRUCTURES

orbit (p)

periorbita - *ID on demo*

lacrimal gland - *ID on demo*

EXTRINSIC MUSCLES OF THE EYEBALL

rectus mm.

retractor bulbi m.

ventral oblique m.

EYEBALL (BULBUS OCULI) (p)

EXTERNAL FIBROUS COAT

cornea

sclera

limbus (corneoscleral junction)

MIDDLE VASCULAR COAT (UVEA)

iris

pupil

ciliary body

choroid

tapetum lucidum (see museum specimens)

INTERNAL COAT (RETINA)

lens

anterior & posterior chambers

aqueous humor

vitreal chamber

vitreal body

optic nerve

optic disc

fundus

BRAIN

CEREBRUM

- gyri & sulci
- cerebral hemispheres
 - frontal lobe
 - occipital lobe
 - piriform lobe
- olfactory bulb - *associated with CN I (olfactory)*

BRAINSTEM

- diencephalon (i.e., thalamus, hypothalamus)
 - optic chiasm - *associated with CN II (optic)*
 - hypophysis (aka pituitary gland)
- midbrain
- pons
- medulla

CEREBELLUM

SPINAL CORD

- dura & pia mater
- spinal nerves