

## **Labs 1 and 2: MUSCULAR SYSTEM**

### **Cat Muscles**

### **Structures**

1. Pectoralis major
2. Pectoralis minor
3. \*Clavotrapezius
4. \*Acromiotrapezius
5. \*Spinotrapezius
6. \*Clavodeltoid
7. \*Acromiodeltoid
8. \*Spinodeltoid
9. Latissimus dorsi
10. Levator scapulae ventralis
11. Serratus ventralis
12. Rhomboideus (major, minor, capitis)
13. Supraspinatus
14. Infraspinatus
15. Teres major
16. Subscapularis
17. Digastric
18. Mylohyoid
19. Sternomastoid
20. Cleidomastoid
21. Sternohyoid
22. Masseter
23. Triceps brachii (long, lateral, medial heads)
24. Biceps brachii

Lumbodorsal Fascia

Rotator cuff

\* Cat only

**Cat Muscles**

**Structures**

- |   |   |
|---|---|
| 25. Brachialis  |   |
| 26. Flexors, lower forelimb   |   |
| 27. Extensors, lower forelimb   |   |
| 28. External oblique  | Aponeurosis   |
| 29. Internal oblique  |   |
| 30. Transversus abdominis   | Peritoneum  |
| 31. Rectus abdominis  | Linea alba  |
| 32. External intercostals   |   |
| 33. Internal intercostals   | Pleura  |
| 34. Sartorius   | Tailor's muscle   |
| 35. Gracilis  |   |
| 36. Tensor fascia lata  |   |
| 37. Gluteus medius  |   |
| 38. Gluteus maximus   |   |
| 39. Biceps femoris  |   |
| 40. Semimembranosus   | Sciatic nerve   |
| 41. Semitendinosus  | Hamstring Muscles: <ul style="list-style-type: none"><li>1. Biceps Femoris</li><li>2. Semitendinosus</li><li>3. Semimembranosus</li></ul> |
| 42. Quadriceps femoris <ul style="list-style-type: none"><li>a. Rectus femoris</li><li>b. Vastus medialis</li><li>c. Vastus lateralis</li><li>d. Vastus intermedius</li></ul> |   |
| 43. Gastrocnemius   | Calcaneal (Achilles) tendon   |
| 44. Soleus  |   |

### HUMAN MUSCLE LIST

<b><u>Muscle</u></b>	<b><u>Origin</u></b>	<b><u>Insertion</u></b>	<b><u>Action</u></b>
Masseter	zygomatic arch	mandibular ramus	closes jaw
Temporalis	temporal bone	mandible	closes jaw
Sternocleidomastoid	sternum & clavicle	mastoid process	flexes neck forward (if both contract)
Pectoralis major	clavicle, sternum	greater tubercle (humerus)	flexion, adduction, medially rotates arm
Deltoid	acromion & spine of scapula, clavicle	deltoid tuberosity (humerus)	abducts arm
Intercostals:			
External	lower border of each rib	upper border of next rib	elevate ribcage, inspiration
Internal	upper border of rib below	lower border of rib above	depress ribcage, expiration
Rectus abdominis	pubic symphysis	xiphoid process, 5th-7th costal cartilages	flexes vertebral column, abdominal compression
External oblique	lower 8 ribs	linea alba, iliac crest	flexes vert. column, abdom. compression, lateral flexion
Trapezius	occipital bone, spines of thoracic vertebrae	clavicle, spine & acromion of scapula	extends head; adducts, elevates, or depresses scapula
Latissimus dorsi	lower thoracic vert. & lumbar vert.	humerus	extension, adduction med. rotation of humerus
Teres major scapula	inferior angle of	intertubercular groove (humerus)	medially rotates and adducts humerus

<b><u>Muscle</u></b>	<b><u>Origin</u></b>	<b><u>Insertion</u></b>	<b><u>Action</u></b>
Rhomboids (Major and minor)	spinous processes upper thoracic vert.	vertebral border of scapula	adducts & rotates scapula
Biceps brachii <i>short head:</i> <i>long head:</i>	coracoid process (scapula) tubercle above glenoid cavity	radial tuberosity	flexion of forearm
Triceps brachii <i>long head:</i> <i>lateral head:</i> <i>medial head:</i>	glenoid cavity humerus (post.) humerus	ulna (olecranon process)	extension of forearm
Gluteus maximus	ilium, sacrum, coccyx	fascia lata (iliotibial tract)	extension of hip (climbing stairs)
Sartorius	ASIS	medial aspect of proximal tibia	flexes leg, laterally rotates thigh
Quadriceps femoris: {Rectus femoris, Vastus intermedius, Vastus lateralis, Vastus medialis}	arises by 4 heads, from ilium and femur	tibial tuberosity	leg extension flexes thigh
Biceps femoris	ischial tuberosity,  linea aspera (femur)	fibula and tibia	flexes leg, extends & adducts thigh
Gastrocnemius	condyles of femur	calcaneus via calcaneal tendon	plantar flexion

**Lab 3 : Digestive System:**

Parotid gland	Greater Omentum	
Submandibular gland	Lesser Omentum	
Vestibule	Stomach	
Tongue	Fundus	} Locate on models/charts
Filiform papillae	Body	
Lingual frenulum	Pylorus	
	Greater curvature	
	Lesser Curvature	
	Pyloric Sphincter	
	Rugae	
Hard palate	Small Intestines:	
Soft palate	Duodenum	
Oropharynx	Jejunum	
Nasopharynx	Ileum	
Epiglottis	Pancreas	
Glottis	Mesenteries	
Trachea	Colon:	
Larynx	Cecum	} Locate on models/charts
Esophagus	Appendix	
Diaphragm	Ascending	
Parietal peritoneum	Transverse	
Visceral peritoneum	Descending	
Liver	Sigmoid colon	
Falciform ligament		
Gall bladder		
Liver lobes:		
Caudate	Spleen	
Right	Kidney	
Left	Urinary Bladder	
Quadrante		
	Common hepatic duct	} Locate on models/charts
	Cystic duct	
	Common bile duct	
	Pancreatic duct	

## Digestive System

1. The **soft palate** separates \_\_\_\_\_ from \_\_\_\_\_.
2. During deglutition, the **soft palate** moves \_\_\_\_\_ (directional term) to prevent food from entering \_\_\_\_\_.
3. The **hard palate** is a horizontal plate made up of \_\_\_\_\_ and \_\_\_\_\_ bones.
4. Important functions of the **lips** include \_\_\_\_\_ and \_\_\_\_\_.
5. The \_\_\_\_\_ (number) permanent **teeth** include the upper teeth located in the \_\_\_\_\_ and the lower teeth located in the \_\_\_\_\_.
6. The main functions of the **tongue** include \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
7. **Pharynx** means \_\_\_\_\_ in Latin and has 3 subdivisions: \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
8. Name the 3 pairs of **salivary glands** and the % of saliva that they produce:
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
9. Three functions of **saliva** include:
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
10. The **teeth** that are important in biting and cutting are \_\_\_\_\_.
11. The **teeth** that are the longest and are important in grasping and holding are the \_\_\_\_\_.
12. The 3 parts of the **esophagus** are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
13. The esophagus conveys from the \_\_\_\_\_ to the \_\_\_\_\_.
14. Another name for reflux esophagitis is \_\_\_\_\_.
15. The “hole” in the diaphragm for the passage of the esophagus is the \_\_\_\_\_.
16. Name the four main functions of the digestive system:
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_

17. The 2 types of digestion are\_\_\_\_\_and\_\_\_\_\_.
18. Digestion begins in the\_\_\_\_\_.
19. Another name for chewing is\_\_\_\_\_.
20. Food is prevented from entering the nasal cavity during swallowing by the\_\_\_\_\_.
21. What muscles push food particles into the pharynx?\_\_\_\_\_.
22. The structure that prevents food from entering the respiratory system is the\_\_\_\_\_.
23. Name the structure that connects the pharynx with the stomach: \_\_\_\_\_
24. Once it has been swallowed, the food mass is called a\_\_\_\_\_.
25. The term for the involuntary wavelike contractions that propel the digesting food to the stomach is\_\_\_\_\_.
26. Rugae are also known as\_\_\_\_\_and function in\_\_\_\_\_.
27. The stomach cells secrete:\_\_\_\_\_,\_\_\_\_\_, and\_\_\_\_\_.
28. What effect do these secretions have on the bolus? \_\_\_\_\_
29. The bolus mixed with stomach secretions is called\_\_\_\_\_.
30. \_\_\_\_\_ exits the stomach through the\_\_\_\_\_and enters the\_\_\_\_\_.
31. The main site of nutrient absorption is the\_\_\_\_\_.
32. Name the 3 parts of the small intestines (proximal to distal):
  - a.
  - b.
  - c.
33. Name the four parts of the stomach from proximal to distal:\_\_\_\_\_,\_\_\_\_\_,\_\_\_\_\_,\_\_\_\_\_.
34. The muscular structure that prevents reflux of stomach contents is called the\_\_\_\_\_.
35. The structures that allow the stomach to expand as it fills are the\_\_\_\_\_.

36. What is the function of the major duodenal papilla?

37. Where is the stomach located? Between which 2 organs?

38. What is the function of the stomach?

What 2 processes contribute to this function?

39. What is the function of the pyloric sphincter?

40. Name the 4 layers of the stomach (outermost to innermost):

- |    |    |
|----|----|
| a. | c. |
| b. | d. |

41. Name the layers of the muscularis.: \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_.

42. How does that compare to the rest of the digestive tract?

43. List 2 functions of gastric mucus:

- a.
- b.

44. Describe the gastric pits. Name the 4 cells and their secretions:

- a.
- b.
- c.
- d.

45. Name the structure that separates the 2 anterior lobes of the **liver**:

\_\_\_\_\_

46. Histologically, the liver is composed of functional units called

\_\_\_\_\_.

47. Name 2 basic functions of the liver:

- a.
- b.

48. Name the 2 structures that receive **bile** from the liver:

\_\_\_\_\_ and \_\_\_\_\_

49. The structure that carries **pancreatic secretions** to the duodenum is the

\_\_\_\_\_.