

University of Diyala
College of Vet. Medicine
Department of Anatomy and Histology
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Anatomy of Digestive system (1)

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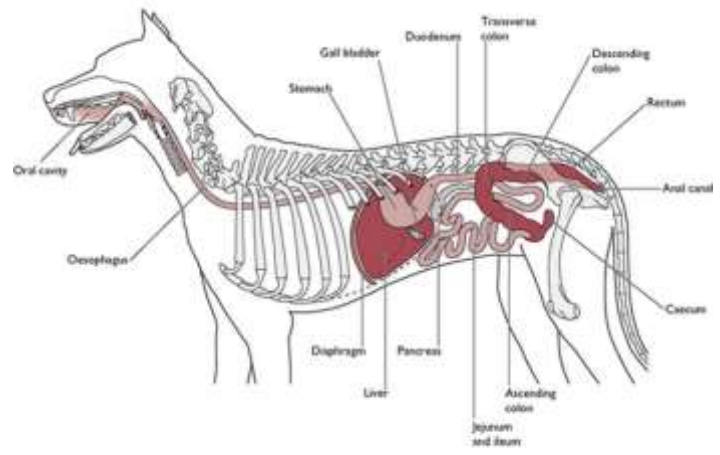
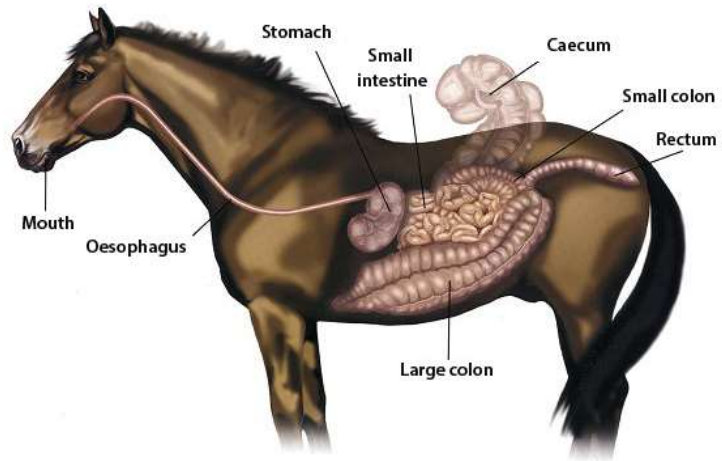
Introduction

Digestive system

It's a long hollow tract or tube that starts at the oral cavity and terminate at the anus.

This system consist of :

1. Digestive tract : that include
 - a. Mouth cavity: (tongue + teeth, salivary glands + lips).
 - b. Pharynx
 - c. Esophagus
 - d. Stomach
 - e. Small intestine: (duodenum , jejunum, ileum)
 - f. Large intestine: **cecum**, **colon** (ascending, transverse, descending), **rectum** , anal canal and anus.
2. Accessory digestive glands (liver, pancreas, salivary glands).



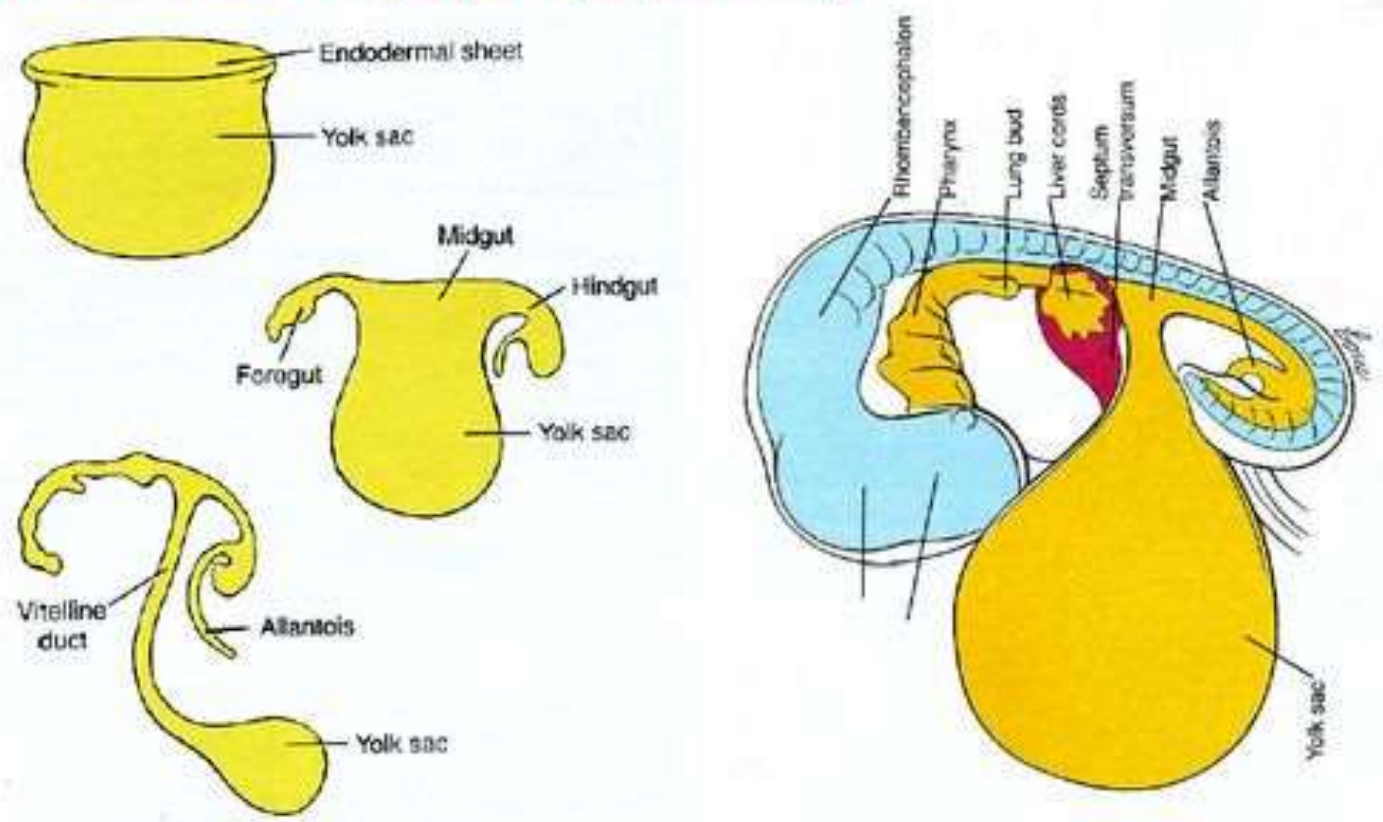
- **Function of the digestive system.**
 - 1-Ingestion.
 - 2-Mastication.
 - 3-digestion.
 - 4-Absorption of food.
 - 5-Expulsion of un absorbed part of food.

Embryological development

- The digestive system is developed from the endoderm and mesoderm.
- the endoderm give the epithelium which is lining the D.S., while the mesoderm give the muscular layer of wall of the D.S.
- During development it's forming the primitive gut which has subcephalic pouch at the cranial end of the embryo, and subcaudal pouch at the caudal end. They are unit together to form primitive gut tube which extends from the cranial end to the caudal end of embryo.

Formation of the Primitive Gut

• **Divided into Foregut, Midgut, & Hindgut**



The primitive gut tube

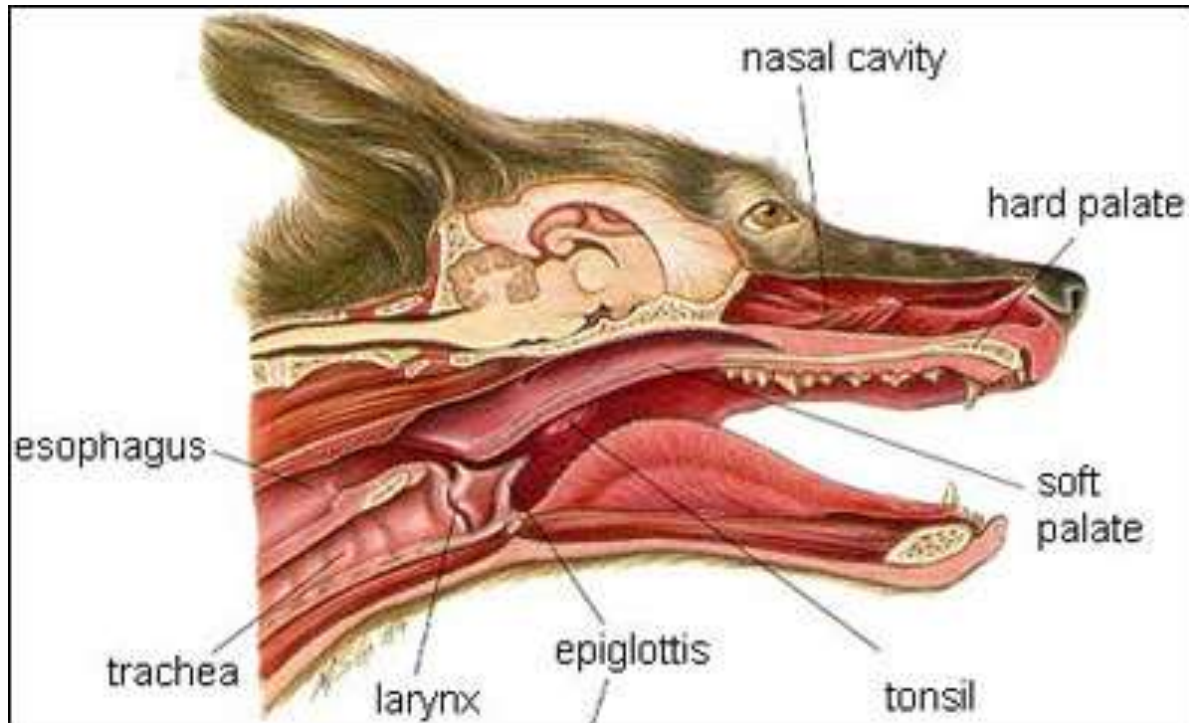
- The dorsal part of yolk sac will give rise to the primitive gut tube.
- The upper part of the primitive gut tube is derived from the pharyngeal pouches.
- The lower part of the anal canal is derived from the proctodeum.
- The liver, gall bladder and pancreas develops from the epithelium of the fore gut.
- The primitive gut is having foregut/midgut and hind gut parts.

The primitive gut tube divided into 3 parts:

1. Fore gut: mouth, teeth, pharynx, esophagus, salivary glands.
2. Mid gut: stomach, liver + pancreas, small intestine (duodenum).
3. Hind gut: jejunum, ileum, large intestine, anus.

Mouth cavity

- It is the first part of the digestive system which bounded:
 1. Cranially lips
 2. Caudally pharynx + soft palate.
 3. Laterally cheeks or buccae left + right.
 4. Dorsally hard palate.
 5. Ventrally body of the mandible + intramandibular muscles.



- The mouth cavity is divided by the teeth and alveolar processes into:-

1. Mouth cavity proper:-

That space of the mouth cavity which is bounded by the teeth and alveolar processes which is occupied by the tongue.

2. vestibule of the mouth cavity:-

- Which is located between the teeth , alveolar processes and lips with cheek, So it is subdividing into:-

A-Labial vestibule:- which is located between incisive teeth and the lips.

B-Buccal vestibule:- which is located between the cheek and molar and premolar teeth.

