

# Digestive System

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# Outline

- Oral Cavity
- Esophagus
- Stomach
- Small intestine
- Large intestine
- Liver, gallbladder, pancreas
  - Hepatopancreatic duct system

- " intake**
- " digestion**
- " absorption**
- " elimination**

- "Proteins**
- "Fat**
- "Carbs**
- "Essential elements**
- "Vitamines & minerals**
- "Water**

# **MOUTH**

**What happens to the passenger?**

**Broke down (mastication, mechanic!)  
teeth, tongue,  
muscles of mastication**

**Digested  
insalivation; digestion of  
polysaccharides by the action of salivary  
amylase**

- Next step?

**oesophagus**

**How did it reach here?**

**Why did not it pass through airway?**

**Swallowing mechanism !!!**

# ESOPHAGUS

- Approx. 12" long
  - C6-T11
  - Posterior to trachea
  - Stratified squamous
- 
- Upper 1/3<sup>rd</sup> Skeletal
  - Middle 1/3<sup>rd</sup> Skeletal → Smooth
  - Lower 1/3<sup>rd</sup> Smooth

## **Jejunum and Ileum**

“ 6-7 m long

“ jejunum: 8q long

“ ileum: 12q long

“ intraperitoneal

“ main site of absorption

## Characteristic Jejunum                      Ileum

Color		Deep red	Paler pink
Caliber		2-4 cm	2-3 cm
Wall		Thick & heavy	Thin & light
Vascularity		Greater	Less
Vasa recta	Long		Short
Arcades	A few large loops	Many short loops	
Fat in mesentery	Less		More
Circular folds (plicae circulares)		Large, tall & closely packed	Low and sparse; absent in distal part
Lymphoid nodules (Peyer's patches)		Few	Many



# LARGE INTESTINE

- Caecum - anus
- ~1.5-2 m
- Inverted U
- Na and water absorption
- Transmission and storage...

**celiac**

**1. Esophagus**

**2. Stomach**

**3. 1/2 Duodenum**

**4. Pancreas**

**5. Liver/ gall bladder**

**6. Spleen**



**Sup.  
Mesenteric**

**1. 1/2 Duodenum**

**2. Jejunum**

**3. Ileum**

**4. Cecum /appendix**

**5. Ascending Colon**

**6. Transverse Colon**



**Inf.  
Mesenteric**

**1. Descending Colon**

**2. Sigmoid Colon**

**3. Rectum**

