

Summary table of the digestive system

Part	Location	Time	Function	Features	Phy/Chem	Some Minor Problems	Other information
Mouth (Buccal cavity)	Lower half of the front of the skull.	Mins	To take in food. To physically break down food.	Contains teeth, tongue and lips. Salivary glands secrete into it.	Physical – teeth. Chemical – saliva.	Erosion of teeth by bacteria.	Saliva contains salivary amylase, water, salts, mucus, lysozyme.
Oesophagus	Stretches through the Thoracic cavity from skull.	3 secs	Transports food from mouth to stomach.	Muscular, which helps food to move onwards. Epiglottis prevents food entering the trachea.	None (saliva still working).	Easily burned by eating hot foods.	Peristalsis. Swallowing reflex.
Stomach	Under the diaphragm on the left-hand side of the abdominal cavity.	4 hrs	Digestion of food (proteins). PH 2 converts pepsinogen into pepsin and helps to soften food for digestion.	The lining of the stomach (the mucosa) is heavily folded, forming millions of gastric glands	Chemical – gastric juice.	Ulcers – perforated ulcers – bacteria in abdominal cavity – death	Peristalsis. Vomiting reflex. Gastric juice = pepsin.
Pancreas	Under the stomach on the left-hand side of the abdominal cavity.		Secretes digestive materials. Neutralises chyme. Secretes insulin which help to control blood sugar levels.	Exocrine gland has a duct to secrete enzymes. Endocrine gland (ductless) is for insulin release.	Chemical – pancreatic juice.		Exocrine gland. Secretes pancreatic juice = Amylase + Trypsin + Lipase.
Liver	Found in the upper abdomen under the diaphragm and mostly to the right-hand side.		Makes bile. Helps to detoxify the body. Breaks down excess amino acids to form urea. Converts glucose to glycogen for storage. Converts excess carbohydrates to fat. Stores vitamins eg Vitamin D. Stores minerals (iron, copper, zinc). Makes plasma proteins eg fibrinogen. Makes cholesterol, which is needed to form hormones eg testosterone Produces heat to warm the blood and the body.		Physical – emulsifies fats.		Bile: Emulsifies fats. Neutralises chyme. Excretes biliverdin and bilirubin. Biliverdin and bilirubin are bile pigments that are made by the liver from broken down red blood cells.
Small intestine		1 - 6 hrs					Peristalsis. 6m long, 3cm diameter
Duodenum	In the abdominal cavity after the stomach.		Digestion of food. Site of entry of products of pancreas and liver.	Contains many villi, microvilli and crypts of Lieberkuhn.	Chemical – intestinal juice.	Duodenal ulcers.	Peristalsis, 25cm long Intestinal Juice = eg Maltase, Lactase, etc.
Jejunum and ileum	In the abdominal cavity after the duodenum.		Absorb nutrients.	Contains many villi. Walls only one cell thick. Rich blood supply. Villi contain lacteals.			5.5 m long Villi contain lacteals for the absorption of fat
Large intestine		10 hrs					1.5m long, 6cm diameter
Caecum	Just below the junction of the small intestine and the large intestine.		Vestigial in humans. In herbivores they contain bacteria that aid in the digestion of cellulose.				
Appendix	Found at the end of the caecum.		Vestigial in humans. In herbivores they contain bacteria that aid in the digestion of cellulose.			Bacteria build up. Grumbling appendix Burst appendix.	
Colon	In the abdominal cavity.	10 hrs	Reabsorb water faeces.			Diarrhoea = absorbs too little water. Constipation = absorbs too much water.	Bacteria help make: B group vitamins; Vitamin K; Fibre stimulates peristalsis.
Rectum	Pelvic cavity connected to the colon.	Few mins	Stores faeces.				15cm long
Anus	Pelvic cavity connected to rectum.		Site of egestion	Controlled by the anal sphincter muscle			
Peritoneum	Sheet of slippery membrane that covers the canal, associated glands, main blood vessels, and inner lining of abdominal cavity.		This reduces friction between the different parts during movement.			Inflammation of this membrane, due to bacterial infection or leaking digestive juices, is called peritonitis. This is one of the symptoms of a ruptured appendix, appendicitis or a ruptured ulcer.	