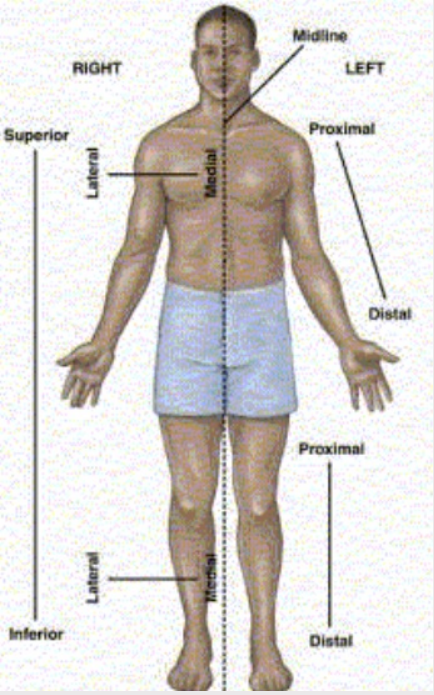
Hon Biology Anatomy Cheat Sheet

by Katie_right1738 via cheatography.com/83429/cs/19776/

External Features

Anterior (Cranial)	toward the head
Posterior (Caudal)	toward the tail
Dorsal (Superior)	toward the backbone
Ventral (Inferior)	toward the belly
Lateral	toward the side
Medial	toward the midline

Anatomical Terminology



Locomotion

Quadruped	walks on **four** legs
Biped	walks on **two** legs

Identify Mammals

Identify Mammals (cont)

Abdominal Cavity	Below the diaphragm, digestion

Sense Features

Nares	**nostrils** used for breathing and smelling
Pinnae	External **ears**.
Vibrissae	**Whiskers**, act as sealers sensitive to things close
Nictitating Membrane	Thrid lid-like structure in the corner of the eye. Protects eye from debris. (Humans do *NOT* have one)

Male or Female

Urogenital opening	allows reproductive and excretory material (like urine) out of the body.
Male urogenital opening	posterior to the umbilical cord on the ventral surface.
Female urogenital opening	covered by a flap of tissue: genital papilla ventral to the anus.

Male or Female

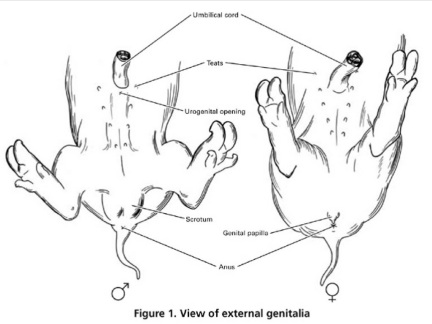


Figure 1. View of external genitalia

Compare and Contrast pigs to humans.

Simila-rities	Mammary papilla, hair, umbilical cord
Differ-ences	Skeleton, thick hair, nictitating membrane

Macromolecules

Carbohydrates	mouth, small intestine
Proteins	stomach, duodenum
Lipids	small instestine
Nucleic Acids	small instestine

Chemical vs Mechanical

Mechanical	breaks big food into small food
Chemical	breaks down starch into simple sugar, destroys food and harvests nutrients

To the Stomach

Perstalsis	Contractions of smooth muscle that aid in swallowing (helps move food through esophagus)
Chyme	Partially digested semi liquid food bolus that passes from the stomach to the small intestine
Esophagus	Food tube connecting the mouth to the stomach
Pepsin	enzyme released by the stomach that digest protiens
Lipase	enzyme released by the pancreas that digests fat
Amylase	enzyme released by salivary glands in the mouth and by the small intestine that digests straches into simpler carbohydrates
Peptidase and Trypsin	enzymes that break down proteins into amino acids in the small intestine
Maltase, Lactase, Sucrase	enzymes the break down sugars into simpler molecules

Pancreas

Pancreas	creates insilin and enzymes to break down molecules (sugars)
Alkaline	neutralize the acid content of the chyme
Lipase	digests fat, protien, and sugars
Insulin	a hormone that allows sugars to enter the cells from the blood

Umbilical Cord	provides food and oxegen from mother to the fetus and the movement of wastes from the fetus to the mother.
Mammary Papilla	nipples
Mammary Glands	develops beneath the mammary papilla in the female.
Three external physical characteristics that indicate the pig is a mammal:	Umbilical Cord, Hair, Mammary Glands
Thoracic Cavity	Above the diaphragm, breathing and heart

Small Intestine

Villi	Tiny projections tha cover the lining of the folds of the small intestine

The **folds, villi and microvilli** projections increase the surface area of the intestine, greatly increasing the rate of *absorbtion* of nutrients.

Duodenum	diffuse into the circulatory system and are carried to the liver. (small piece from the stomach to the bigger part)	Absorbs: sugar, amino acids, calcium, and iron
Jejunum	Diffuse circul-atory system to be distributed throughout the body (first large section of the small intestine)	Absorbs: glucose, amino acids, vietamin C & B, and water
Ileum	Empty into lymph and blood vessels and are distri-buted to the cells (End section of small intesine)	Absorbs: fat-sa-luable vitamins, vitamin B, fatty acids, choles-terol, and some water

Bile	an emulsifier which means it breaks down large molecules of lipidsinto smaller ones. (stored in gull bladder, and made in small intestine)
Aborbtion	help the circulatory and lymphatic systems

Contrast pigs to humans.

Pigs	7 lung lobes (4 on right side, 3 on left), Colon is not spiral, does not use cecum?
Humans	5 lung lobes (3 on right, 2 on left), spiral large intestine (square shape)

Organs

Stomach	makes pepsin, contains hydrochlic to digest protiens
Liver	builds more complex molecules, that are need by cells (glycogen)
Large Intestine *(called spiral colon in the pig)*	Absorb water, bile, salts, and electrolytes

Feces in stoed in the **rectom** and is eliminated through the **anus**

Salivary Glands	makes saliva to moisten food and begin the digestive system
Teeth	break down food to make it smaller
Hard and soft Palate	Seperate mouth from nose cavities
Esophagus	passes food down to stomach
Glottis	opening to larynx
Epiglottis	Block food from going into lungs
Tongue	moves food in mouth help push food down esophagus
Cecums (Appendix)	a tube-shaped sac attached to and opening into the lower end of the large intestine