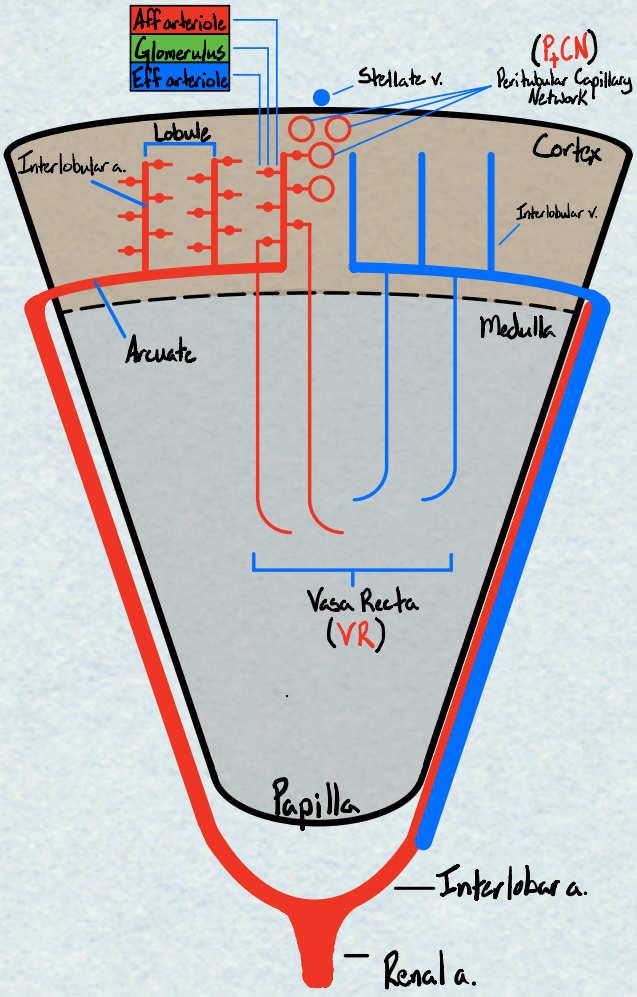
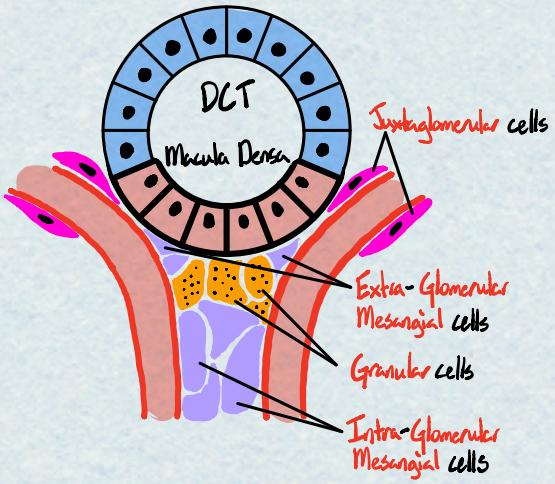
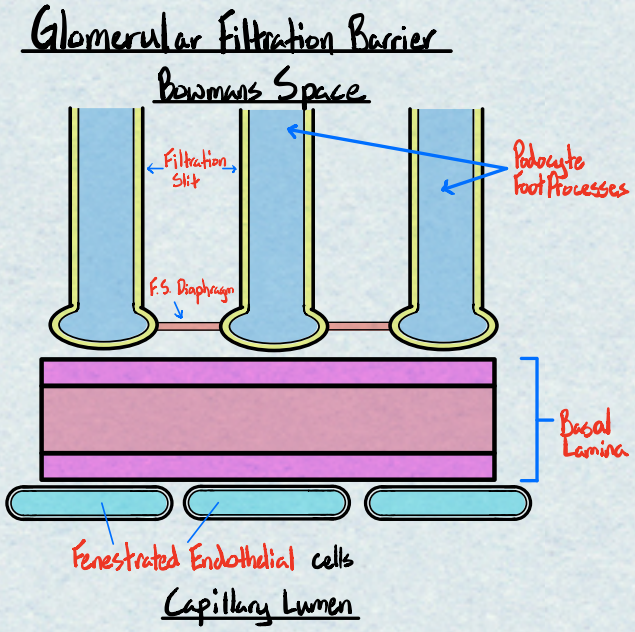
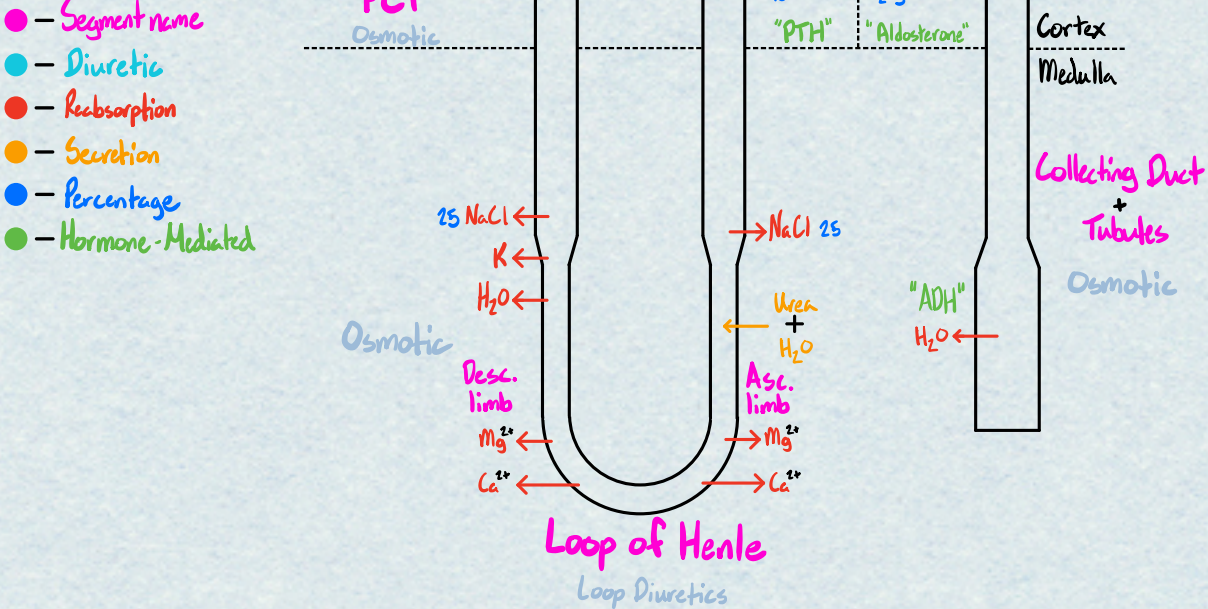
KIDNEY


Aff arteriole
Glomerulus
Eff arteriole
Stellate v.
(PCN)
Peritubular Capillary Network
Lobule
Cortex
Interlobular a.
Interlobular v.
Arcuate
Medulla
Vasa Recta
(VR)
Papilla
Interlobar a.
Renal a.

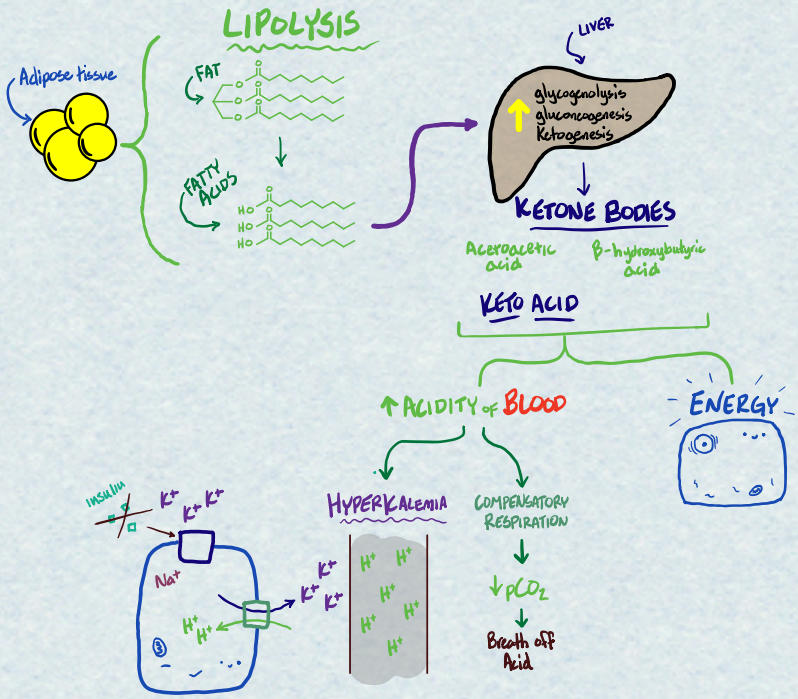

DCT
Macula Densa
Juxtaglomerular cells
Extra-Glomerular Mesangial cells
Granular cells
Intra-Glomerular Mesangial cells

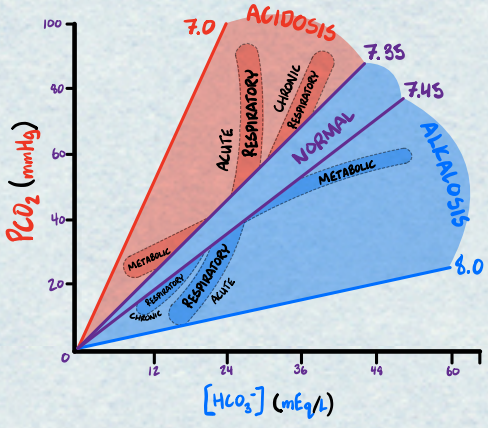

Glomerular Filtration Barrier
Bowmans Space
Filtration Slit
Podocyte Foot Processes
F.S. Diaphragm
Basal Lamina
Fenestrated Endothelial cells
Capillary Lumen


Segment name
Diuretic
Reabsorption
Secretion
Percentage
Hormone-Mediated
Creatinine, ABx, Diuretics, Uric acid
NaCl K+ H2O HCO3 Glu AA
67-40
85
PCT
Osmotic
DCT
Proximal Part
Thiazides
Distal Part
Osmotic + K-sparing
K+ H+ Urea
Macula Densa
NaCl Ca2+
10
"PTH"
NaCl H2O
2-5
"Aldosterone"
K-sparing
Cortex
Medulla
Collecting Duct + Tubules
Osmotic
25 NaCl
K
H2O
Osmotic
NaCl 25
Urea + H2O
"ADH"
H2O
Desc. limb
Asc. limb
Mg2+
Ca2+
Loop of Henle
Loop Diuretics

RANDOM PHYSIOLOGY

DIABETIC KETOACIDOSIS (DKA)



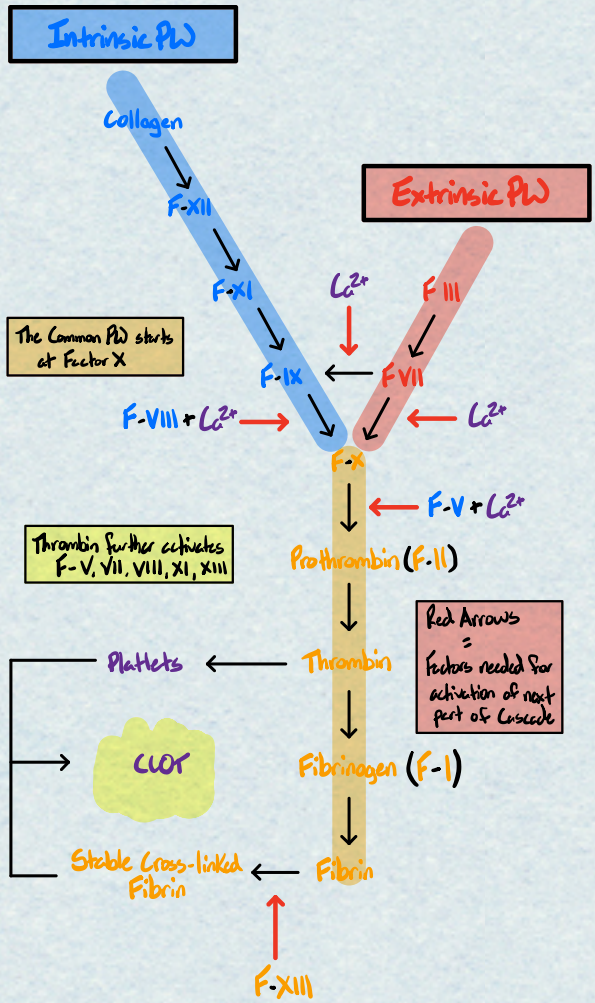


RESPIRATORY

	PCO_2	$[HCO_3^-]$	pH
ACIDOSIS (ACUTE)	↑	–	↓↓
ACIDOSIS (CHRONIC)	↑	↑	↓
ALKALOSIS (ACUTE)	↓	–	↑↑
ALKALOSIS (CHRONIC)	↓	↓	↑

METABOLIC

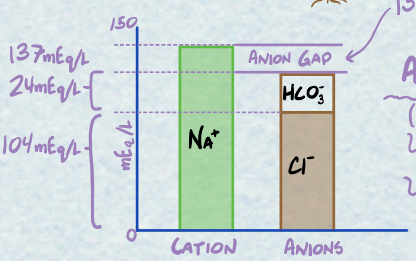
	PCO_2	$[HCO_3^-]$	pH
ACIDOSIS	↓	↓	↓
ALKALOSIS	↑	↑	↑



BLOOD pH

~BALANCE BETWEEN BASES (↑pH) & ACIDS (↓pH)

TOTAL CATIONS (+) = TOTAL ANIONS (−)

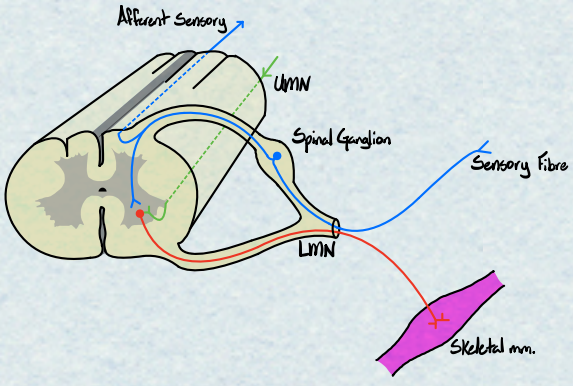


137 − (104 + 24) = 9 mEq/L

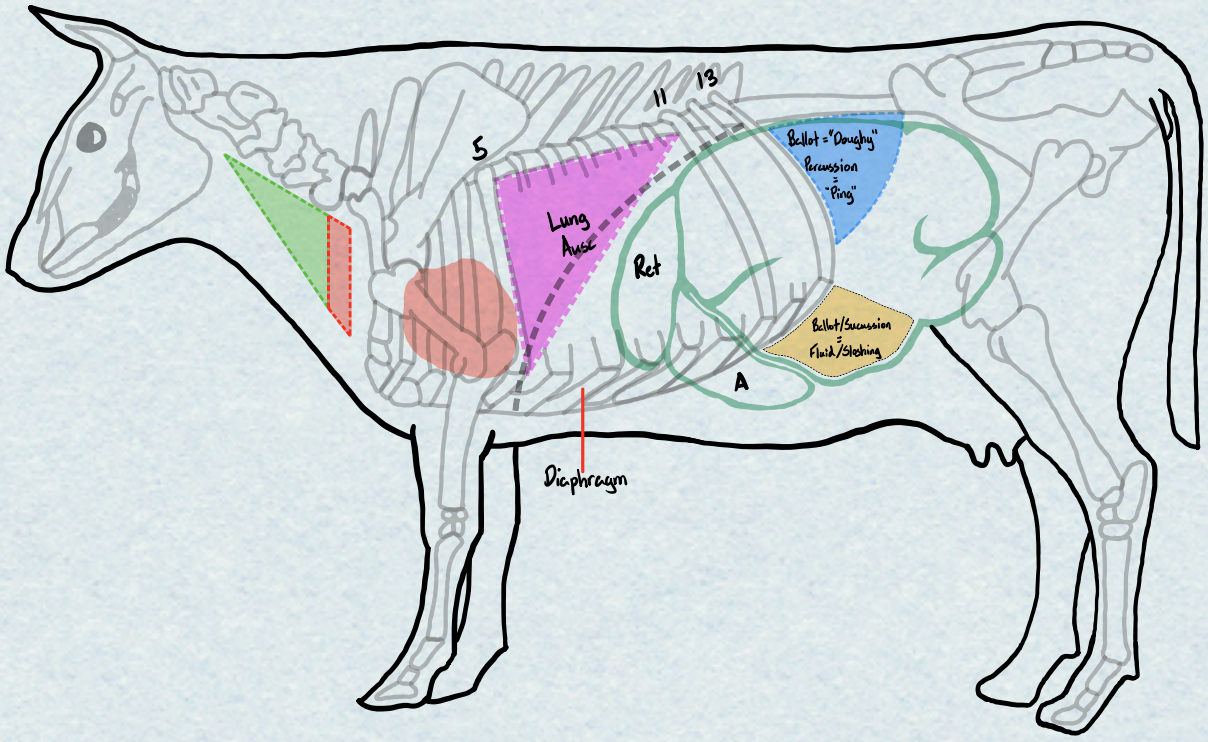
ANION GAP = UNMEASURED ANIONS

(3–11 mEq/L)

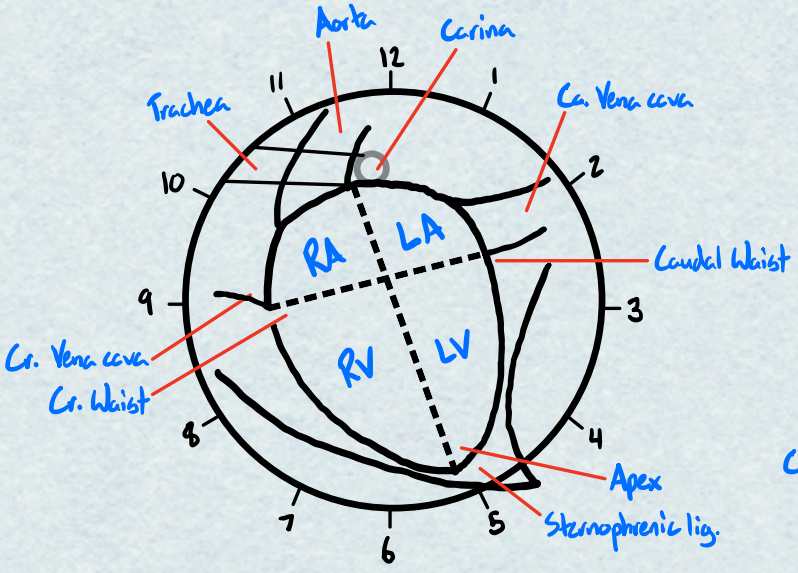
- ORGANIC ACIDS:
  - KETONES, LACTATE, OXALATE (EG), PHOSPHATE
- NEGATIVELY CHARGED PLASMA PROTEINS⁻ (ALBUMIN)

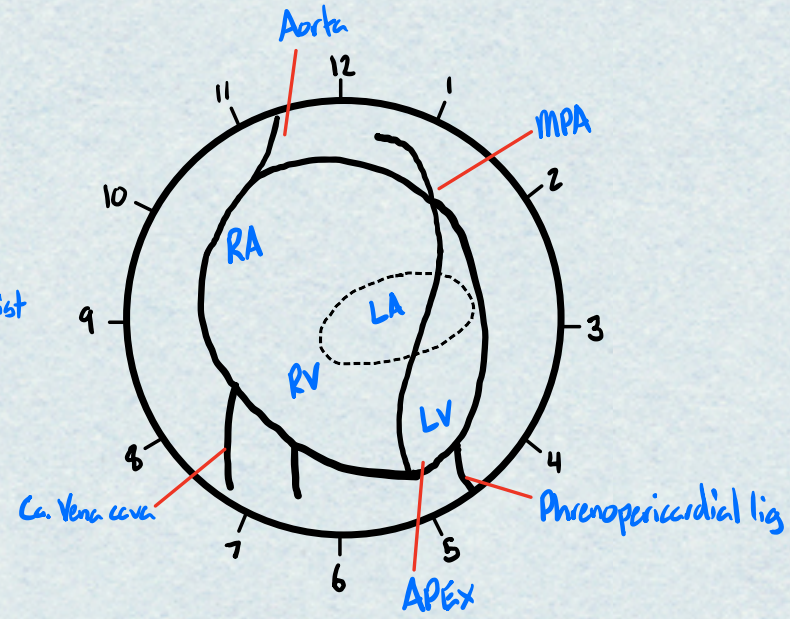


TOPOGRAPH OF COW

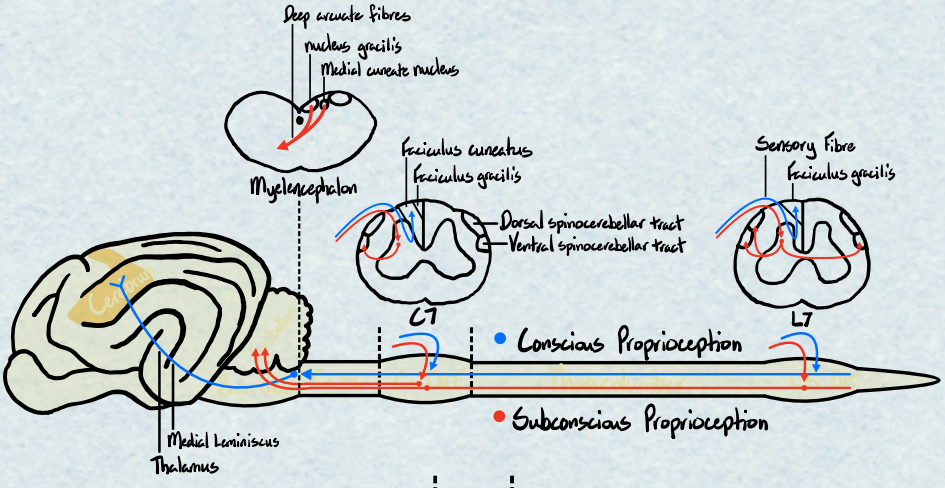


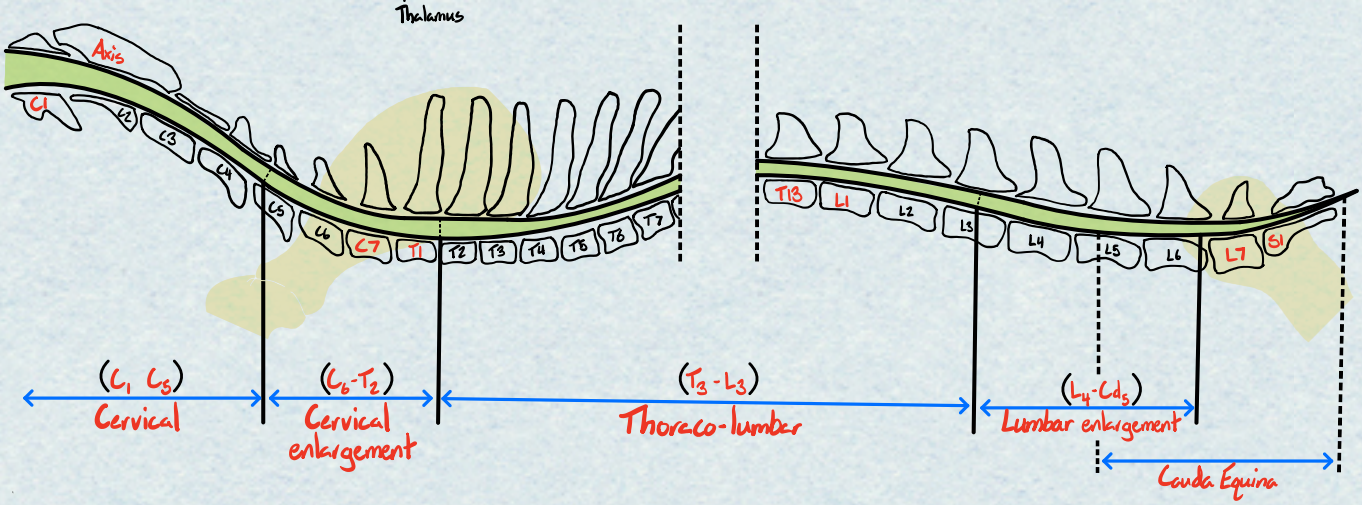
HEART IN RADIOGRAPHS

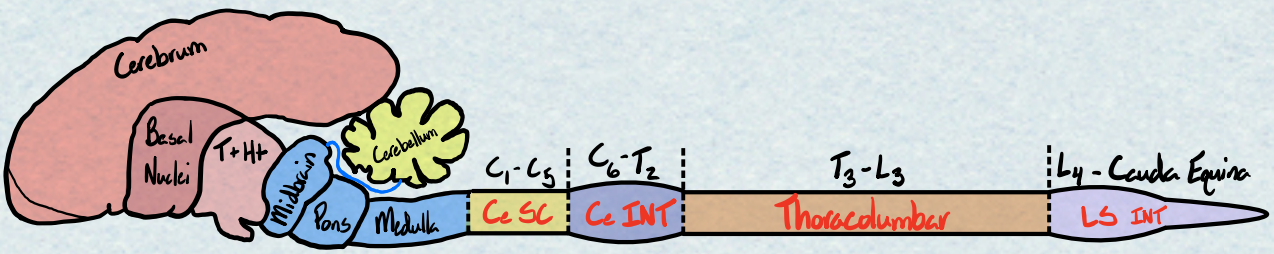


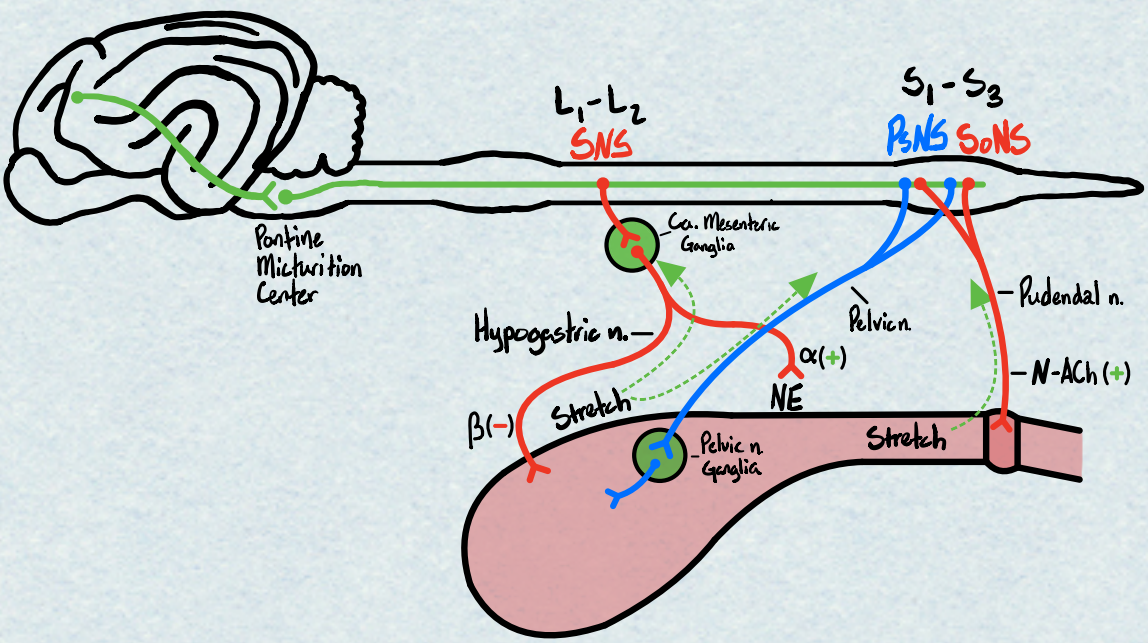


NEURO

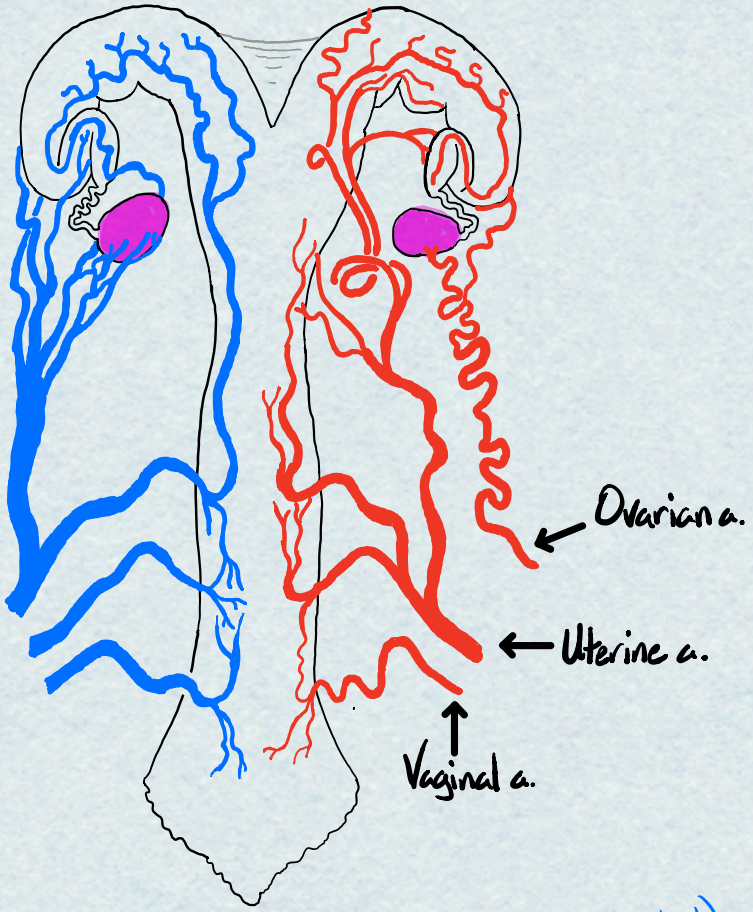

Deep arcuate fibres
nucleus gracilis
Medial cuneate nucleus
Myelencephalon
Fasciculus cuneatus
Fasciculus gracilis
Dorsal spinocerebellar tract
Ventral spinocerebellar tract
Sensory Fibre
Fasciculus gracilis
C7
L7
Conscious Proprioception
Subconscious Proprioception
Medial Leminiscus
Thalamus

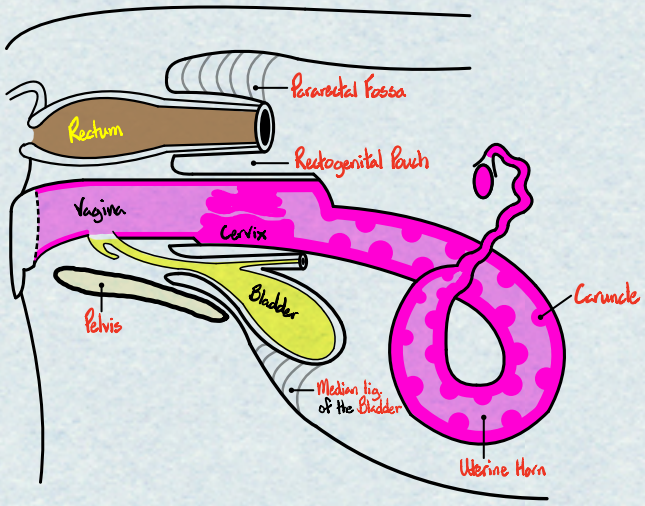

Axis
C1
C2
C3
C4
C5
C6
C7
T1
T2
T3
T4
T5
T6
T7
T13
L1
L2
L3
L4
L5
L6
L7
S1
(C1 C5)
Cervical
(C6-T2)
Cervical enlargement
(T3 - L3)
Thoraco-lumbar
(L4-Cd5)
Lumbar enlargement
Cauda Equina

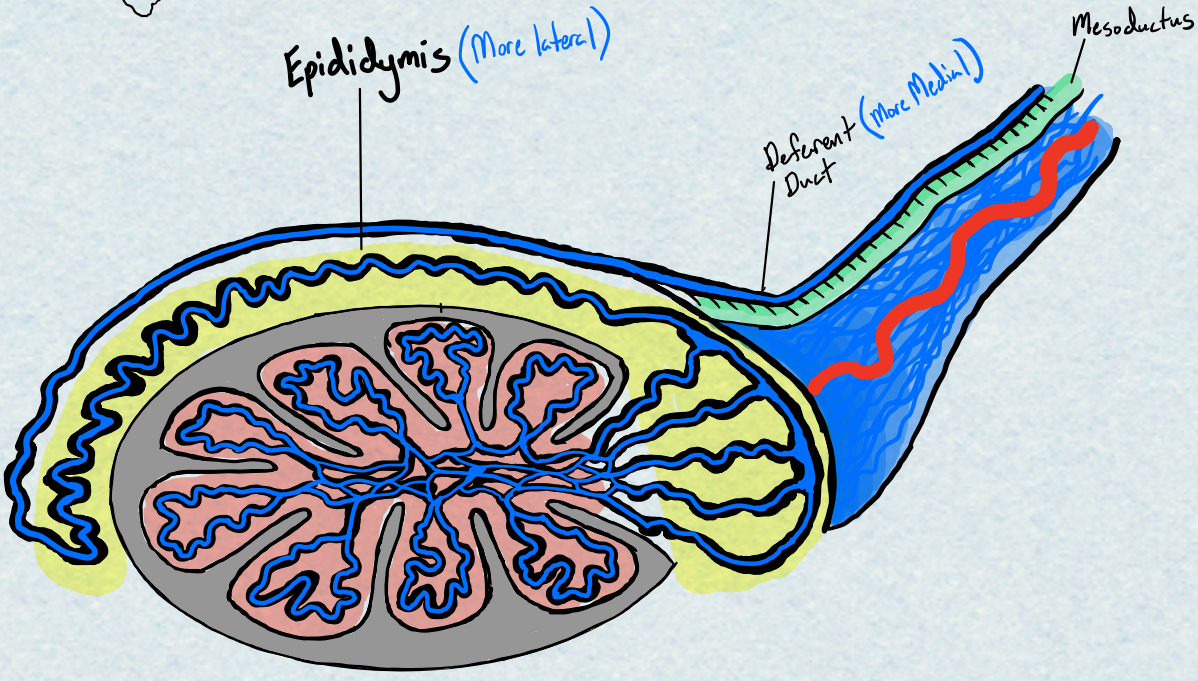

Cerebrum
Basal Nuclei
T+Ht
Midbrain
Cerebellum
Pons
Medulla
C1 - C5
C6 - T2
T3 - L3
L4 - Cauda Equina
Ce SC
Ce INT
Thoracolumbar
LS INT


L1 - L2
SNS
S1 - S3
PsNS
SoNS
Pontine Micturition Center
Co. Mesenteric Ganglia
Hypogastric n.
Pelvic n.
Pudendal n.
α(+)
NE
N-ACh (+)
β(-)
Stretch
Pelvic n. Ganglia
Stretch

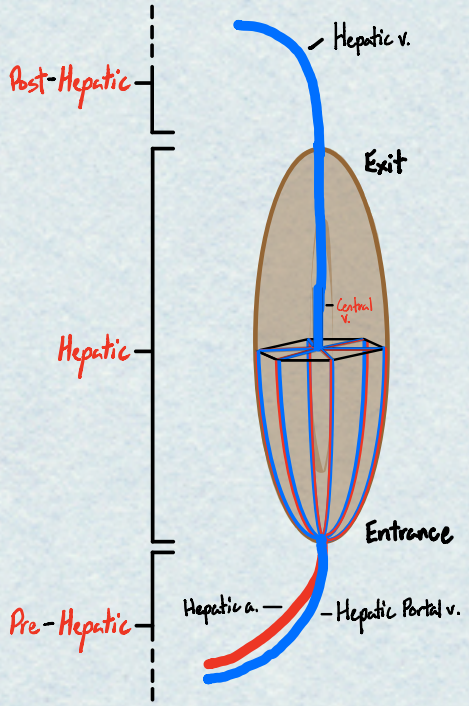
REPRODUCTIVE

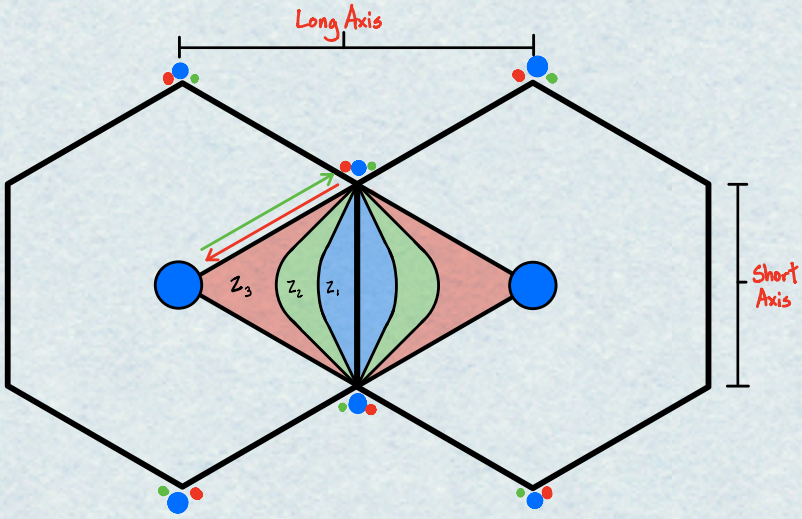


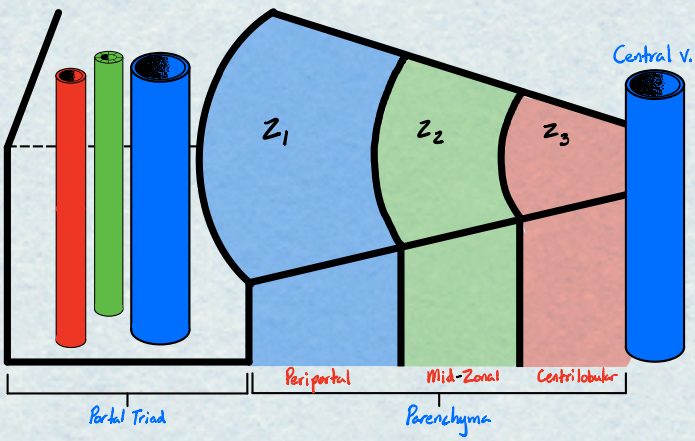


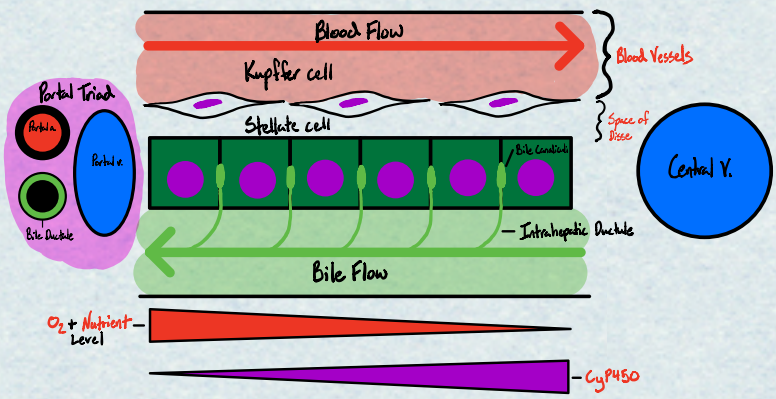


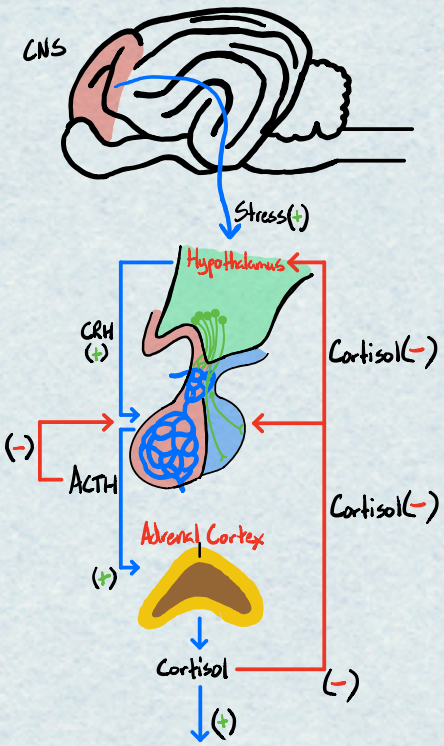
LIVER + PITUITARY

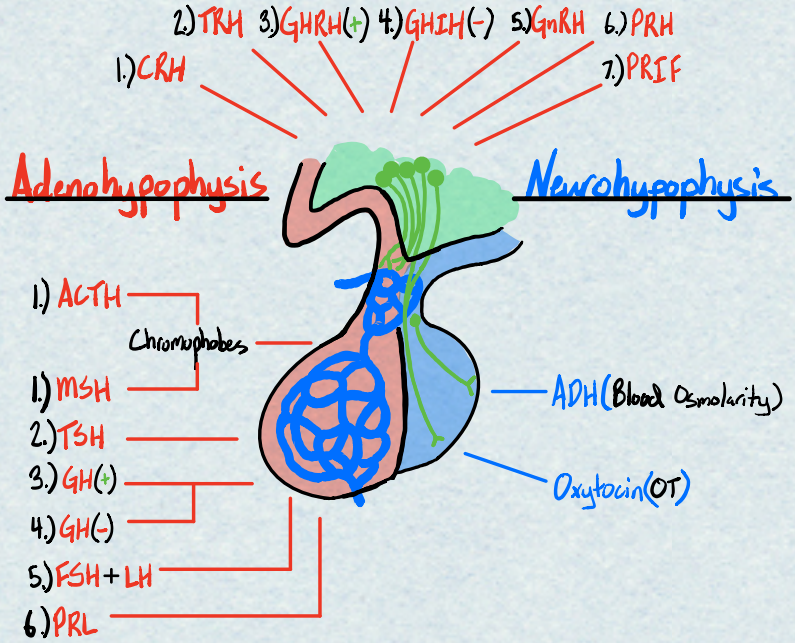




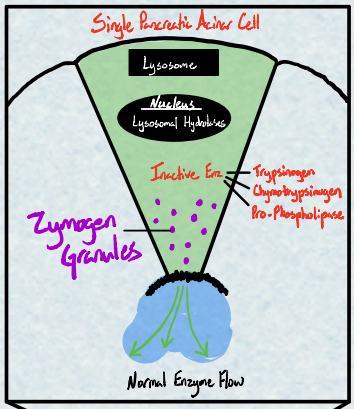


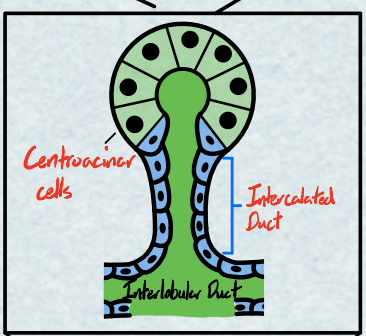


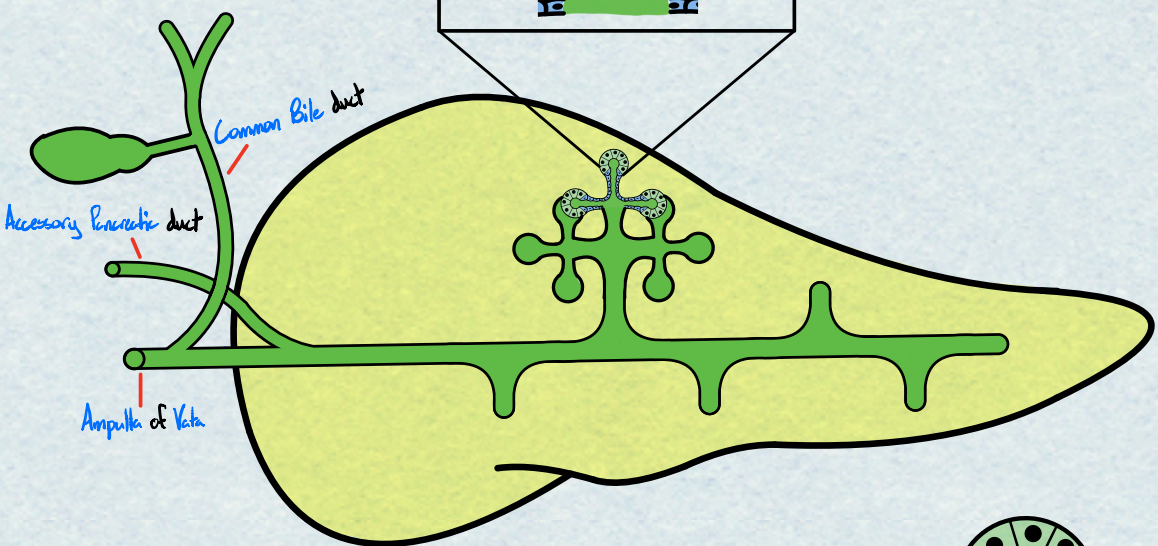


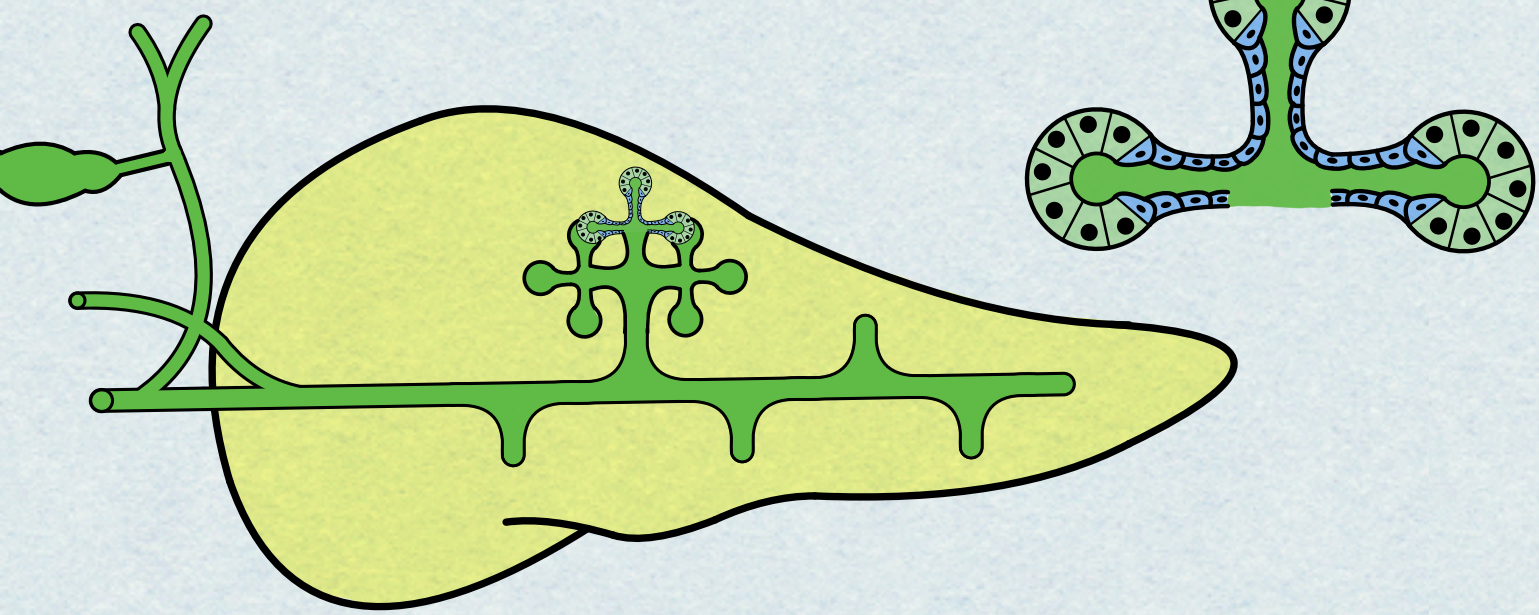


PANCREAS

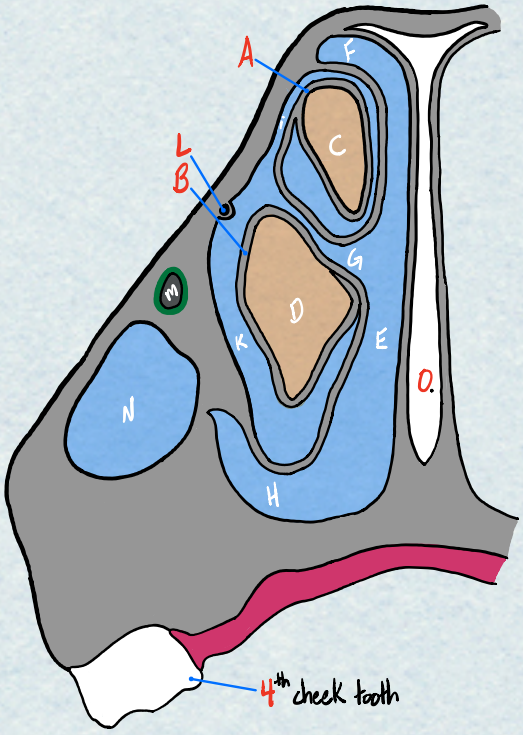

Single Pancreatic Acinar Cell
Lysosome
Nucleus
Lysosomal Hydrolases
Inactive Enz.
Trypsinogen
Chymotrypsinogen
Pro-Phospholipase
Zymogen Granules
Normal Enzyme Flow

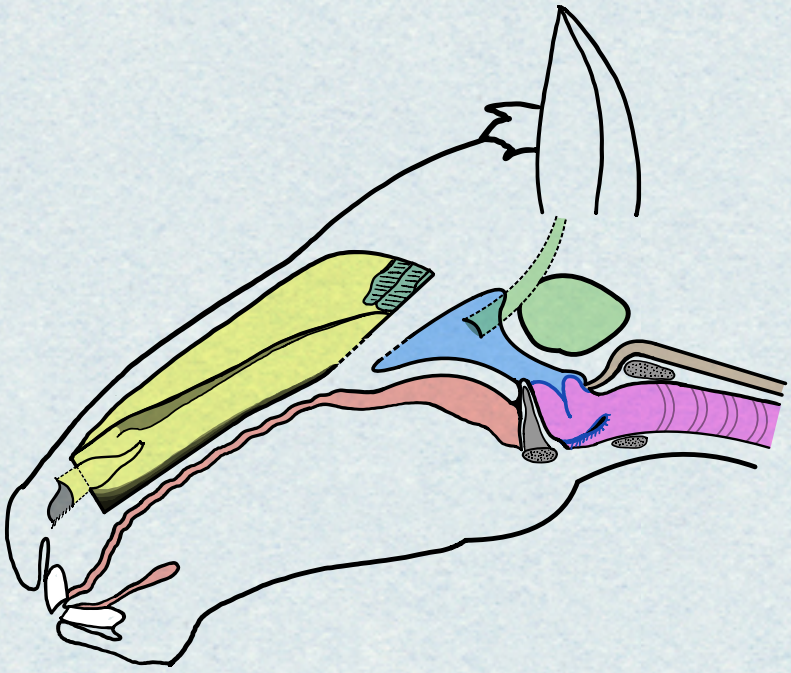

Centroacinar cells
Intercalated Duct
Interlobular Duct

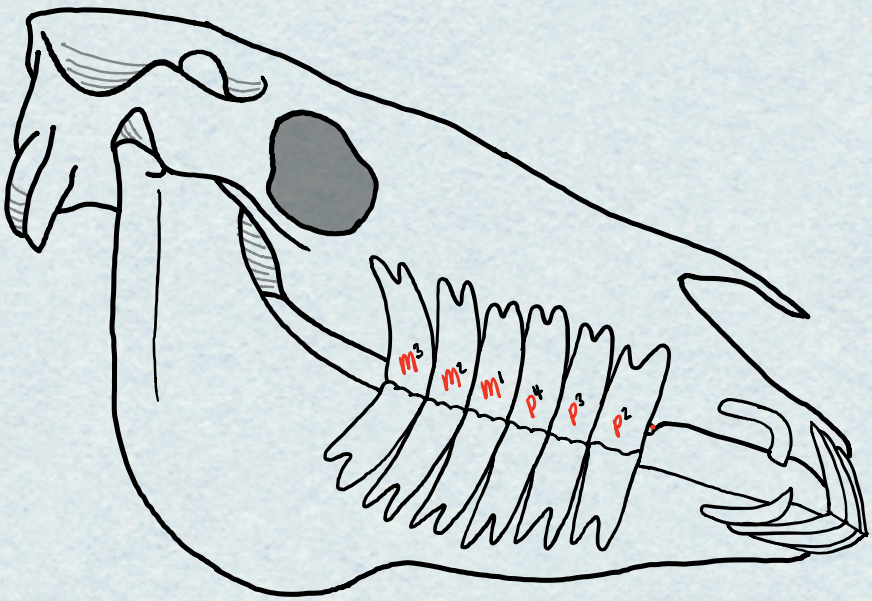

Common Bile duct
Accessory Pancreatic duct
Ampulla of Vata

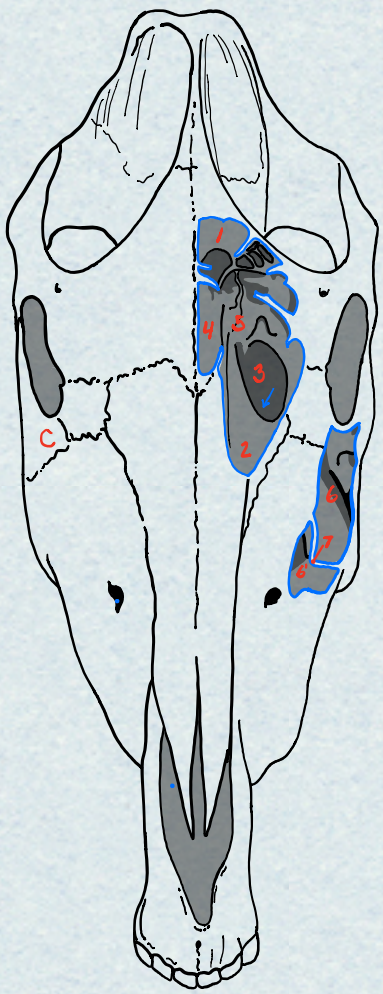


HORSE SKULL ANATOMY









TARSUS + NERVES/NERVE BLOCKS (HORSE)