

Practical One Review

This is only a guideline. You are responsible for ALL material covered in class.

Exercise 27- Endocrine System

- Functional differences between the nervous and endocrine systems (the body's two controlling systems).
- Functions of hormones and target organs
- Major endocrine glands and their hormones
 - Anterior pituitary gland- FSH, LH, ACTH, GH, PRL
 - Know the definition of tropic hormones
 - Posterior pituitary gland- oxytocin, ADH
 - Know why the posterior pituitary isn't a true endocrine gland
 - Thyroid gland- thyroid hormone, calcitonin
 - Adrenal gland- epinephrine, norepinephrine, corticosteroids
 - Cortex vs medulla
 - Pancreas- insulin, glucagon
 - Ovary- estrogen, progesterone
 - Testes- testosterone
 - Pineal gland- melatonin
- FIGURE 27.2- anatomical location of endocrine organs Be able to find them on cat and human torsos
- Endocrine disorders- know causes and symptoms- hypoglycemia, diabetes mellitus, dwarfism, acromegaly, myxedema, tetany

Exercise 29- Blood

- Three types of formed elements
- Plasma
- Erythrocytes- anucleate, hemoglobin, function
- Leukocytes
 - Granulocytes vs agranulocytes
 - Relative abundance
 - Characteristics Leukocytes - functions and conditions associated with their increase or decrease
 - Functions - know distinguishing features for the identification of slides
- Conditions and diseases- leukocytosis, leukopenia, polycythemia, anemia
- Hematocrit
- ABO blood typing and Rh factor
 - antigens and antibodies

Exercise 30- The Heart

- FIGURES 30.2 a and b, 30.7, 30.8 a and b, 30.9
- Be able to identify all chambers, valves, vessels, and structures on sheep heart and diagrams
- Understand papillary muscles and chordae tendinae
- Understand membranes
- Be able to trace blood flow through the heart and lungs
- MUST understand right vs left- anatomical position
- Know whether blood in each chamber is oxygenated or deoxygenated
- Understand why pulmonary arteries and veins are special (think oxygen content)
- Key terms and structures to know: superior vena cava, inferior vena cava, right atrium, tricuspid valve, right ventricle, pulmonary semilunar valve, pulmonary artery, lungs, pulmonary veins, left atria, bicuspid (mitral) valve, left ventricle, aortic semilunar valve, aorta, papillary muscles, chordae tendinae, myocardium, interatrial and interventricular septa, pericardium, epicardium, intercalated discs

Exercise 32- Blood Vessels

- Structural and functional differences between arteries and veins
- Recognize microscopic characteristics of arteries and veins
- FIGURE 32.1
- Know branching patterns, location, and functions of vessels
- Know differences between cats and humans
- STICK FIGURES
- MUST TELL RIGHT OR LEFT AND ARTERY OR VEIN

- *4 types of circulation:
 - pulmonary
 - systemic
 - fetal
 - hepatic portal

Vessels of cat

- Veins- UPPER BODY
- Superior vena cava
- Azygos vein
- R and L brachiocephalic veins
- R and L external jugular veins
- R and L internal jugular veins
- R and L subclavian veins
- R and L axillary veins
- R and L subscapular veins
- R and L brachial veins

- Veins- LOWER BODY
- inferior vena cava
- hepatic vein
- lumbar veins (can't see)
- R and L renal veins
- R and L genital veins
- R and L iliolumbar veins
- R and L common iliac veins
- R and L internal iliac veins
- R and L external iliac veins
- R and L femoral veins
- R and L great saphenous veins

Arteries- UPPER BODY

- Aorta
- R brachiocephalic artery
- L subclavian artery
- R subclavian artery
- R and L common carotid arteries
- R and L internal carotid arteries
- R and L external carotid arteries
- Internal mammary artery
- R and L axillary arteries
- R and L subscapular arteries
- R and L brachial arteries

- Arteries- LOWER BODY
- celiac trunk
- left gastric artery
- caudal artery
- splenic artery
- hepatic artery
- R and L lumbar arteries (can't see)
- R and L renal arteries
- R and L genital arteries
- superior mesenteric artery
- inferior mesenteric artery
- R and L iliolumbar arteries
- R and L external iliac arteries
- Internal iliac artery
- R and L internal iliac arteries
- R and L femoral arteries

Vessels of human

- Veins- UPPER BODY
- Superior vena cava
- Azygos vein
- R and L brachiocephalic veins
- R and L external jugular veins
- R and L internal jugular veins
- R and L subclavian veins
- R and L axillary veins
- R and L cephalic veins
- R and L brachial veins

- Veins- LOWER BODY
- inferior vena cava
- common hepatic vein
- lumbar veins (can't see)
- R and L renal veins
- R and L gonadal veins
- R and L iliolumbar veins
- R and L common iliac veins
- R and L internal iliac veins
- R and L external iliac veins
- R and L femoral veins
- R and L great saphenous veins

Arteries- UPPER BODY

- Aorta
- R brachiocephalic artery

Arteries- LOWER BODY

- celiac trunk
- left gastric artery

- L common carotid artery
- L subclavian artery
- R subclavian artery
- R common carotid artery
- R and L internal carotid arteries
- R and L external carotid arteries
- Internal mammary artery
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- R and L brachial arteries

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 R and L external iliac arteries
 Internal iliac artery
 R and L internal iliac arteries
 R and L femoral arteries

Exercises 31 and 33A- Cardio Phys

- **BOLD FACED WORDS**
- Intrinsic conduction system
- Electrocardiography
- Cardiac cycle
- Heart sounds
- Pulse
- Blood pressure, Systolic and diastolic pressure

Cardiovascular physiology

- mean arterial pressure
- systole vs. diastole
- depolarization wave through the heart, PQRST waves
- ECG
- cardiac cycle
- heart sounds, lub vs. dub, sounds of Korotkoff
- heart murmurs
- pulse and pulse deficit
- pulse points and apical vs. radial pulse
- blood pressure formulas
- sphygmomanometer and how used

- sinoatrial node
- atrioventricular node
- AV bundle (bundle of HIS)
- bundle branches
- Purkinje fibers
- bradycardia, tachycardia
- fibrillation