

## Final Exam Review

## Honors Anatomy & Physiology

These are the essential questions from the second half of the year. Changes are possible!

### Chp. 10 (Somatic & Special Senses)

1. How are senses formed? (i.e. what does a sensory receptor detect?)
2. Name the 5 types of general receptors & what each senses.
3. Distinguish between referred, acute & chronic pain.
4. What is sound? (think in terms of sound waves - what is occurring when something makes a sound)
5. What is the range of human hearing? Which frequencies are we most sensitive to?  
How many decibels does it take to do damage to the ear?
6. What are the 2 types of visual receptor? How do we perceive color?
7. Study Figs. 10.7 & 10.18. Know:  
*Ear: auricle, external auditory (acoustic) meatus, tympanic membrane, malleus, incus, stapes, cochlea & semicircular ducts.*  
*Eye: pupil, lens, cornea, iris, retina, sclera, vitreous humor, optic, nerve, fovea centralis.*

### Chp. 11 Endocrine System

1. Name the location & function of the major organs of the endocrine system.
2. Define hormone & target cell.
3. Distinguish between negative and positive feedback system.
4. Name the hormones secreted by the major glands (in #1 above) and what they control.
5. Explain how the body responds to stress.

### Chp 12 – Blood

1. What type of tissue is blood? B) What purpose does blood serve?
2. What is blood composed of? B) Describe its appearance c) Why does it look this way?
3. What is blood's life expectancy? B) Explain what happens to blood when it gets old?
4. Where & how is blood produced by the body?
5. What are the 5 types of white blood cells b) What characteristics distinguish them?
6. Discuss the function of WBCs.
7. What is the function of blood platelets?
8. Summarize in a chart, the number of RBCs, WBCs and platelets per cubic millimeter (or milliliter), describe their appearance (or draw if you wish) and their function.
9. What is blood plasma composed of?
10. Name the 3 plasma proteins & their function.
11. Define *hemostasis* (not homeostasis!).
12. Explain platelet's role in blood coagulation & how a blood clot forms.
13. Explain the 4 blood types & how adverse transfusion reactions occur & can be avoided.
14. Distinguish between Rh positive & Rh negative blood factors.

### Chp. 13. Cardiovascular System

1. Name the location and function of the parts of the CV system.
2. Know the 3 layers of the heart wall & their function.
3. Name & describe the locations of the major parts of the heart & discuss their Function.
4. Trace & color the pathway of the blood through the heart & vessels of the coronary circulation.

5. Know the cardiac cycle.
6. Recognize the ECG patterns for a normal heartbeat.
7. Know the system of blood vessels
8. Explain how blood pressure is produced & controlled.
9. Identify & locate the major arteries & veins of the pulmonary & systemic circuits.
10. Know the major function of arteries & veins in terms of direction of blood flow.

### Chp 14 - Lymphatic System -

1. What is lymph? How is it formed?
2. What is the function of the lymphatic system?
3. Where does lymph get dumped (both sides)?
4. How does lymph move through the body?
5. What is the function of the lymph nodes? What may happen to them if they're clearing infection out? Where are they located (also where are the major concentrations)?
6. Explain the difference between specific (adaptive) and nonspecific (innate) immune systems.
7. What triggers an allergy? What makes organ transplants difficult for the recipient?

### Chp. 15 – Digestive System

1. Identify the location & function of the organs of the entire digestive system
2. Describe the steps of swallowing. What is peristalsis? What are papillae?
3. What is chyme & bolus?
4. Identify the major salivary glands. What distinguishes the hard & soft palate?
5. How long (in relative terms) does it take proteins, fats & carbs to digest? Why?
6. Review the arrangement of teeth in the oral cavity & their function
7. What is the role of pepsin? How is it formed/ What is an ulcer? Heartburn?
8. What substances are absorbed by the stomach? Where does most digestion take place?
9. What are villi - what is their function?
10. Know the various sphincters we discussed in class.

### Chp 16 – Respiratory System

*Since we just covered this - use the chapter study guide.*

Chp. 17 – Urinary System - IF WE GOT THIS FAR... We just covered this material (& the study guide has been posted by now) so again, use the Chapter study guide.

### Diagrams to know

Chp 1 - Fig 1.7 & 1.11	Chp 14 - Fig 14.4
Chp 10 - Fig 10.6 & 10.17	Chp 15 - Fig 15.6, 15.8 & 15.11
Chp 11 - Fig 11.1	Chp 16 - Fig 16.1, 16.2 & 16.7
Chp. 12 - None	Chp 17 - Fig. 17.1
Chp 13 - Fig. 13.4, 13.11, 13.12, 13.18	

**\*\*\*Start soon, study hard & good luck!!**