**Human Anatomy & Physiology II**

**Exam #2 Study Guide**

**Blood Vessels**

1. Know the different types of vessels and the main characteristics & functions of each.

2. Know the basic structures (layers) of the all vessels given in class.

3. Be able to state the 3 capillary transport mechanisms and examples of substances moved by each.

4. Know the 2 pressures that determine net filtration pressure (NFP), what causes each, which one

favors filtration, and which one favors reabsorption.

5. Define net filtration pressure (NFP).

6. Be able to define systolic pressure, diastolic pressure, pulse pressure, and mean arteriole blood

pressure.

7. Be able to calculate pulse pressure and mean arterial blood pressure.

8. Know the factors on which resistance is dependent.

9. Define total peripheral resistance and what factors affect it.

10. Be able to describe the 2 pumps that aid venous return.

11. Understand how the body controls blood flow & pressure.

12. Be able to define/recognize blood vessel disorders.

**Lymphatic System, Nonspecific Resistance, Immunity**

1. Know the functions of the lymph system.

2. Be able to identify the lymphatic vessels, the characteristics of each, and the correct order of flow.

3. Know the 2 ducts which empty into the cardiovascular system.

4. Be able to identify the lymph cells, tissues, and organs of the body.

5. Know the 3 specific lymphoid nodule arrangements.

6. Know the descriptions/functions of tonsils.

7. Know the mechanism of filtering lymph.

8. Be able to identify the mechanical and chemical barriers of the body.

9. Be able to describe interferons, natural killer cells, and fever.

10. Know the process of phagocytosis

11. Know the basic overviews of cell-mediated and antibody-mediated responses including descriptions of the main components of each.

**Respiratory System**

1. Know the main functions of the respiratory system.

2. Know the breakdown of the respiratory system and the description and function of each

structure (if given in lecture).

3. Be able to define surfactant, its function, and when during development it is produced.

4. Be able to explain inspiration and expiration. Know the muscles involved with each and

how they relate to lung volume and pressure.

5. Be able to recognize Boyle’s and Dalton’s Laws.

6. Know how oxygen and carbon dioxide are transported in the blood.

7. Know the factors that affect gas exchange rate and oxygen affinity.

8. Be able to explain how bicarbonate is formed.

9. Know the respiratory groups that control respiration and what each does.

10. Be able to identify the factors that influence the respiration centers.

11. Be able to recognize the different lung volumes/capacities, including formulas and actual

values as indicated in lecture.

12. Be able to recognize different breathing patterns.

13. Be able to match respiratory disorders with their descriptions.

***This study guide covers the majority of information on the exam but not all of it. You are still responsible for any information that was covered in the notes but not put on this guide (intentionally or unintentionally). Good Luck and Study Hard!!***