

Vocabulary Chapter 6

1. triage
2. pulse
3. blood pressure
4. systolic
5. diastolic
6. body temperature
7. rate of breathing
8. shock
9. hyperthermia
10. hypothermia
11. stressors
12. histamines
13. antihistamines
14. autoimmune disease
15. Pathogen

pathogens	foreign bodies, such as bacteria or virus, that cause disease
hypothermia	when the body core temperature is below normal
shock	occurs when the blood pressure is too low
triage	prioritizing patients for treatment based on vital signs & condition
hyperthermia	core body temperature is above normal
pulse	normal for this in humans about 70 beats per minute (bpm)
temperature	this can increase with infection. Normal human body temperature is 98.6 degrees
autoimmune	this type of disease attacks the body's self.
Systolic	pressure when the heart is squeezing blood out against blood vessel walls; it is the top number in a blood pressure reading
histamines	these chemicals cause itchy, watery eyes and constricted smooth muscle

Name _____ Period _____ Date _____

Video Worksheet
“An Inside Look at the Flu”

1. What is the name of the virus that invaded Holly Jones' body? _____

2. What does the virus look like? (draw a picture)

3. Use a flow chart to show the pathway of the virus from the time it enters Holly's nose until it reaches her throat.

4. What trick does the virus play on Holly's throat cells to get inside? _____

5. What does a virus do once it gets into a cell? _____

6. Name the cells that are the body's first immune response against foreign invaders like viruses. _____

7. Name the two immune cells that can kill viruses and the methods each uses.

<u>Immune Cell</u>	<u>Method of Virus Destruction</u>
a. _____	_____
b. _____	_____

8. What are the names of the cells that remain in Holly's body to fight the flu if she is ever exposed again? _____

9. What can a virus like the flu do so that Holly's immune system won't recognize it in the future? _____

Essay p. 246: Avoiding Disruptions: The Immune System

The system that protects our body is called the _____ system. The body's largest organ and first line of defense against germs for the immune system is the _____. But the _____ is not sterile (which means there are no living organisms on it). It has millions of beneficial _____ on it that fight disease-causing microorganisms known as "_____."

But openings to our body, such as the _____, _____, _____, _____ and _____ & _____ openings need additional defenses to _____ these natural openings. The secretions that protect these openings include _____, _____ and _____.

If there is a _____ on the skin, pathogens can directly invade the body. Then, other immune system defenses need to take over.

Macrophages, Helper T-Cells and Killer T-Cells

A _____ is a _____ defense cell that "scavenges" for many types of pathogens and toxins. _____ in the lungs protect the body against pathogens the humans _____.

Macrophages also signal _____, which direct other immune cells to attach only *certain* invaders, as compared to the "nonspecific" _____ immune cells.

Helper T-Cells can activate _____, which kill "specific *infected* cells."

Cell-Mediated Response

When Helper T-Cells activate Killer T-Cells, it is called the "_____ - _____." This is an important defense against _____, because a virus enters the cells of their host, and _____ cannot find them.

Viruses use the host cell for protection and to _____. Because viruses live *inside* the host's cells, _____ are effective against _____ but are not effective against viruses. Most chemicals that will kill a virus-infected cell will also kill _____ cells. But _____ can distinguish between cells infected by viruses and uninfected cells. Infected cells have a unique molecule on their surface that Killer T-Cells recognize and know to destroy *that* cell.

B-Cells

Macrophages can also help activate _____, which produce _____. Antibodies are _____ that recognize the protein on pathogens called _____. The antibodies bind to the _____ of the pathogen. Macrophages can then destroy the 'pathogens with _____ attached to them.' This is called _____ - _____ response.

Allergic Reactions

Sometimes the immune system attacks the host itself when a person is allergic to a substance such as _____, _____, _____ or _____. The body sees these substances as "foreign invaders" and antibodies are produced. This results in _____ being produced, which causes _____, itching and _____. _____ can also cause muscles to contract and _____ to _____. This can result in a person _____. The _____ found in allergy medicines reduce these symptoms.

People become sick when their _____ system weakens. Some stresses that weaken the immune system are _____, _____, _____ and _____. Pathogens can then take over and cause disease. AIDS, or _____, is an extreme example of what can happen if the immune system is damaged. If a person has _____, the HIV (human immunodeficiency virus) directly attacks the helper T-cells and the person is unable to fight off even minor infections.

Essay p. 250: SELF AND NONSELF

The immune system is effective because it can distinguish between cells that are _____ or _____.

The surface of _____ blood cells contains molecules that identify the *blood type* of a person. The _____ of one blood type into a person with another blood type will result in the patient's immune system _____ the blood. This will cause blood _____ and can result in _____.

Complete the chart below:

Blood Type	Molecule on rbc	Antibody present
O	None	Anti-A, Anti-B
AB	A and B	None

Blood types are _____. Blood type _____ is called the "Universal Donor" and blood type _____ is called the "Universal Recipient."

_____ are diseases in which the immune system can not distinguish between self and nonself. As a result, the immune system attacks and damages cells/tissues of its own.

Two autoimmune diseases are _____ and _____. In Rheumatoid Arthritis, the immune system causes inflammation and damage to the _____ of the body. In Multiple Sclerosis, the immune system destroys the _____.

Essay P. 251: Immune System Memory