

## Chapter 49: Digestive and Excretory Systems

Terms: \* indicates terms that are already defined in these notes!!!

### 49-1 \*nutrients

- \*essential amino acids
- \*unsaturated fats
- \*deficiency diseases
- \*dehydration
- \*gastrointestinal tract
- \*chemical digestion
- \*epiglottis
- \*gastric pits
- \*ulcer
- \*chyme
- \*villi and microvilli
- \*medulla
- urea
- \*filtration
- \*secretion
- \*urinary bladder
- \*excretion

### \*nonessential amino acids

- \*saturated fats
- vitamins
- minerals

### 49-2 \*digestion

- \*mechanical digestion
- \*bolus
- \*peristalsis
- \*pepsin
- \*cardiac sphincter
- \*pyloric sphincter

### 49-3 \*cortex

- \*renal pelvis
- \*nephron
- \*reabsorption
- \*ureter
- \*urethra

### 49-1: Nutrients

1. Fill out the following table on the six nutrients needed by the body to grow and carry out life functions.

Food	Job	Example	Digested into
Carbohydrates			
Lipids (fats)			
Proteins			
Vitamins			
Minerals			
Waters			

2. What part of a plant does not get digested by us?
3. Which is healthier--saturated or unsaturated fats? Why?
4. What do we eat to gain saturated fats? unsaturated fats?
5. What is the difference between water-soluble and fat-soluble vitamins? Name them.
6. Which vitamin group can be dangerous? Why?
7. What happens if you do not get enough vitamins?
8. Why do we need the minerals iron and iodine?
9. What happens as a result of dehydration?

**49-2: Digestive System**

10. Define digestion.

11. Matching:

- \_\_\_\_\_ 1. digestive tract
- \_\_\_\_\_ 2. breaks food into smaller pieces
- \_\_\_\_\_ 3. uses chemicals to break food into new molecules
- \_\_\_\_\_ 4. ball of food that is swallowed
- \_\_\_\_\_ 5. keeps food out of the airway
- \_\_\_\_\_ 6. lets food into the stomach
- \_\_\_\_\_ 7. lets food into the small intestine from stomach
- \_\_\_\_\_ 8. muscular contractions that move food through the digestive tract
- \_\_\_\_\_ 9. food when the stomach is done with it, pea soup consistency
- \_\_\_\_\_ 10. sore caused by bacteria or digestion of the stomach
- \_\_\_\_\_ 11. protects the stomach lining from being digested
- \_\_\_\_\_ 12. made of duodenum, jejunum, ileum
- \_\_\_\_\_ 13. fingerlike projections that absorb food by diffusion and active transport  
in the small intestine

Terms:

- |                         |                           |
|-------------------------|---------------------------|
| A. bolus                | H. cardiac sphincter      |
| B. chemical digestion   | I. chyme                  |
| C. epiglottis           | J. gastrointestinal tract |
| D. mechanical digestion | K. mucus                  |
| E. peristalsis          | L. pyloric sphincter      |
| F. small intestine      | M. ulcer                  |
| G. villi and microvilli |                           |

12. Fill out the following table for the DIGESTIVE TRACT.

Organ	Kind of Mechanical Digestion	Chemical Digestion: Include CHEMICAL & the FOOD BROKEN DOWN
Mouth		
Esophagus	Moves food to the stomach XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Stomach		
Small Intestine	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Large Intestine	JOB IS: Absorb water and minerals	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Anus	JOB IS: Eliminate Feces	XXXXXXXXXXXXXXXXXXXXXXXXXXXX

\* Fill out the following table. Organs NOT in the digestive tract but are part of the DIGESTIVE SYSTEM

Organ	Kind of Mechanical Digestion	Chemical Digestion: Include CHEMICAL & the FOOD BROKEN DOWN
Liver	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	* dumps into the gall bladder
Gall bladder	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	* dumps into the small intestine
Pancreas	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	* dumps into the small intestine

13.

Food	Digested into
Protein	
Lipids	
Carbohydrates	

**49-3: Urinary System**

14. What is getting rid of metabolic wastes by passing substances through a membrane called?

15. Define each of the following parts of the kidney:

-Cortex

-Medulla

-Renal pelvis

-Nephrons

16. There are three steps to waste removal which occurs in the nephrons of the kidneys. Name each from the following descriptions.

1. Materials from the blood are forced into the nephrons.

2. Needed materials (water, glucose, vitamins, minerals.....) are returned to the blood.

3. Wastes remaining are excreted.

17. Label: Kidney, Ureter, urinary bladder, urethra

**18. Excretory Organs**

Organ	Gets rid of:
Lungs	
Kidneys	
Skin	

19. Where is urea made? From what is urea made?