Digestive and Excretory Systems (Ch 32 CP)

32.1 Nutrients and Homeostasis

* In the 1700’s \_\_\_\_\_\_\_\_\_\_\_ was a common illness that produced weakness, bruising, bleeding gums, and painful joints. But the sailors who ate \_\_\_\_\_\_\_\_\_ never took ill. \_\_\_\_\_\_ in the citrus foods helped them stay healthy.
* Now we know that we need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in our daily diets to help keep us working correctly.

1. **Water** : makes up 60 % of our \_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is a natural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ participating in all of our cellular processes and chemical reactions. In order to maintain in equilibrium, we must drink at least \_\_\_\_\_\_\_\_\_\_\_\_\_ a day.
2. **Carbohydrates** :are the main source of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ for our bodies. Simple carbs are found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If we consume too much glucose, it can be converted into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for later usage. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a dietary fiber that many fruits and veggies contain that we cannot breakdown.
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** :are the raw material used for the growth and repair of the body’s cells and tissues. Proteins are made from small particles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We can make \_\_\_\_\_\_\_\_\_ amino acids in our bodies but have to get \_\_\_\_\_\_\_\_\_\_\_ from our food we eat.
4. **Fats:** provide \_\_\_\_\_\_\_\_\_\_\_\_ and components for cell membranes, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ and some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Fats are classified as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are solids at room temperature and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are liquids at room temperature.
5. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** : are inorganic compounds that are needed to carry out certain processes. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is found in leafy greens and is a component in our blood. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ helps to activate many enzymes in metabolic processes.
6. **Vitamins** : are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ molecules (contain carbon) that work with enzymes to regulate cell functions, growth and development. There are \_\_\_\_\_\_\_\_\_\_ soluble, which are stored and collected in fat cells and there are water soluble vitamins like \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ which cannot be stored and are excreted in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. What is Vitamin E important for?
   2. What is Folic acid important for?
   3. What is B-12 important for?

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are the times in your life where you are growing and developing fast that than at any other time. During growth spurts, you body needs more nutrients ad more energy in the form of Calories. A calorie ( c ) is the amt. of energy required to raise one gram of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one degree Celsius. Calorie (C) actually represents \_\_\_\_\_\_\_\_\_\_\_\_\_ calories. Proteins and carbs yield \_\_\_\_\_\_\_\_\_\_\_\_ Calories, while one gram of fat creates \_\_\_\_\_\_\_\_\_\_\_ Calories.
* Looking at the chart on page 975, What differences do you notice between the two charts? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Digestive and Excretory Systems (Ch 32 CP)

32.1 Nutrients and Homeostasis

* In the 1700’s \_\_\_\_\_\_\_\_\_\_\_ was a common illness that produced weakness, bruising, bleeding gums, and painful joints. But the sailors who ate \_\_\_\_\_\_\_\_\_ never took ill. \_\_\_\_\_\_ in the citrus foods helped them stay healthy.
* Now we know that we need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in our daily diets to help keep us working correctly.

1. **Water** : makes up 60 % of our \_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is a natural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ participating in all of our cellular processes and chemical reactions. In order to maintain in equilibrium, we must drink at least \_\_\_\_\_\_\_\_\_\_\_\_\_ a day.
2. **Carbohydrates** :are the main source of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ for our bodies. Simple carbs are found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If we consume too much glucose, it can be converted into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for later usage. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a dietary fiber that many fruits and veggies contain that we cannot breakdown.
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** :are the raw material used for the growth and repair of the body’s cells and tissues. Proteins are made from small particles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We can make \_\_\_\_\_\_\_\_\_ amino acids in our bodies but have to get \_\_\_\_\_\_\_\_\_\_\_ from our food we eat.
4. **Fats:** provide \_\_\_\_\_\_\_\_\_\_\_\_ and components for cell membranes, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ and some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Fats are classified as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ,which are solids at room temperature and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are liquids at room temperature.
5. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** : are inorganic compounds that are needed to carry out certain processes. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is found in leafy greens and is a component in our blood. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ helps to activate many enzymes in metabolic processes.
6. **Vitamins**: are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ molecules (contain carbon) that work with enzymes to regulate cell functions, growth and development. There are \_\_\_\_\_\_\_\_\_\_ soluble, which are stored and collected in fat cells and there are water soluble vitamins like \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ which cannot be stored and are excreted in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. What is Vitamin E important for?
   2. What is Folic acid important for?
   3. What is B-12 important for?

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are the times in your life where you are growing and developing fast that than at any other time. During growth spurts, you body needs more nutrients ad more energy in the form of Calories. A calorie ( c ) is the amt. of energy required to raise one gram of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one degree Celsius. Calorie (C) actually represents \_\_\_\_\_\_\_\_\_\_\_\_\_ calories. Proteins and carbs yield \_\_\_\_\_\_\_\_\_\_\_\_ Calories, while one gram of fat creates \_\_\_\_\_\_\_\_\_\_\_ Calories.

Looking at the chart on page 975, What differences do you notice between the two charts? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_