

Kentucky Class Notes

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NFS 101 Webber
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Test 1

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- The body cannot synthesize enough of them.
 - If an essential nutrient is missing from the diet, a deficiency develops.
 - If the missing nutrient is put back into the diet, the effects of the deficiency are reversed.
 - Scientists are able to trace the cause and cure of the deficiency.
- ◆ Nutrients
- **MACRONUTRIENTS**(carbohydrates, protein, and fat) provide energy and are needed in relatively large amounts.
 - **MICRONUTRIENTS**(vitamins and minerals) are needed in very small amounts and regulate body processes, but do not provide energy.
 - **CARBOHYDRATES** provide energy.
 - **FATS** provide energy and assist growth and development.
 - **PROTEINS** assist the functioning of structural components (bones, muscles, and cells).
 - **VITAMINS** help regulate body processes.
 - **MINERALS** help regulate body processes.
 - **WATER** helps the body maintain fluid balance, eliminate waste, and transport substances between cells.
- ◆ Energy
- In nutrition, the term “energy” refers to the chemical energy in food.
 - The body turns chemical energy into mechanical, electrical, and heat energy.
 - Carbohydrates, proteins, and fats are **ENERGY-YIELDING NUTRIENTS**.
- ◆ Caloric Value of Nutrients
- A kilocalorie (what we call a **CALORIE**) is the amount of heat energy needed to raise the temperature of a kilogram(liter) of water 1 degree Celsius.
 - There are 4 **CALORIES** in a **GRAM** of carbohydrates.
 - There are 4 **CALORIES** in a **GRAM** of protein.
 - There are 9 **CALORIES** in a **GRAM** of fat.
 - There are 7 **CALORIES** in a **GRAM** of alcohol.