General Instructional Objectives

Chapter 18: Carbohydrates

Instructional Objectives

1. Know the difference between complex and simple carbohydrates and the amounts of each recommended in the daily diet.
2. Know the difference between complex and simple carbohydrates and the amounts of each recommended in the daily diet.
3. Understand the concepts of chirality, enantiomers, stereoisomers, and the D and L-families.
4. Recognize whether a sugar is a reducing or a nonreducing sugar.
5. Discuss the use of the Benedict's reagent to measure the level of glucose in urine. Draw and name the common, simple carbohydrates using structural formulas and Fischer projection formulas.
6. Given the linear structure of a monosaccharide, draw the Haworth projection of its a- and 0-cyclic forms and vice versa. Discuss the structural, chemical, and biochemical properties of the monosaccharides, oligosaccharides, and polysaccharides.
7. Know the difference between galactosemia and lactose intolerance.