



FIG 14-1 Middle childhood is the stage of development when deciduous teeth are shed.

Maturation of Systems

Maturity of the gastrointestinal system is reflected in fewer stomach upsets, better maintenance of blood glucose levels, and an increased stomach capacity, which permits retention of food for longer periods. School-age children do not need to be fed as promptly or as frequently as preschool-age children. Caloric needs (kcal/kg) are less than they were in the preschool years and lower than they will be during the coming adolescent growth spurt.

Physical maturation is evident in other body tissues and organs. Bladder capacity, although differing widely among individual children, is generally greater in girls than in boys. The heart grows more slowly during the middle years and is smaller in relation to the rest of the body than at any other period of life. Heart and respiratory rates steadily decrease, and blood pressure increases from 6 to 12 years old (see inside back cover).

The immune system becomes more competent in its ability to localize infections and to produce an antibody–antigen response. However, children have several infections in the first 1 to 2 years of school because of increased exposure to others in school classes.

Bones continue to ossify throughout childhood but yield to pressure and muscle pulls more readily than with mature bones. Children need ample opportunity to move around, but they should observe caution in carrying heavy loads. For example, they should