and its distribution patterns change, contributing to the thinner appearance of children during the middle years.

Accompanying the skeletal lengthening and fat diminution is an increase in the percentage of body weight represented by muscle tissue. By the end of this age period, both boys and girls double their strength and physical capabilities, and their steady and relatively consistent development of coordination increases their poise and skill. However, this increased strength is often misleading. Although strength increases, muscles are still functionally immature when compared with those of adolescents, and they are more readily damaged by muscular injury caused by overuse.

The most pronounced changes that indicate increasing maturity in children are a decrease in head circumference in relation to standing height, a decrease in waist circumference in relation to height, and an increase in leg length in relation to height. These indicators often provide a clue to a child's degree of physical maturity. There appears to be a correlation between physical indications of maturity and success in school.

Certain physiologic and anatomic characteristics are typical of school-age children. Facial proportions change as the face grows faster in relation to the remainder of the cranium. The skull and brain grow very slowly during this period and increase little in size thereafter. Because all of the primary (deciduous) teeth are lost during this age span, middle childhood is sometimes known as the age of the loose tooth (Fig. 14-1). The early years of middle childhood, when the new secondary (permanent) teeth appear too large for the face, are known as the ugly duckling stage.