the first year of life and routine screening of Hgb levels during early childhood (Baker, Greer, and Committee on Nutrition American Academy of Pediatrics, 2010; Lerner and Sills, 2011; Powers and Buchanan, 2014). Preterm infants are especially at risk because of their reduced fetal iron supply. Children 12 to 36 months old are at risk for anemia as a result of primarily cow milk intake and not eating an adequate amount of iron-containing food (Baker, Greer, and Committee on Nutrition American Academy of Pediatrics, 2010; Eussen, Alles, Uijterschout, et al, 2015; Paoletti, Bogen, and Ritchey, 2014). Adolescents are also at risk because of their rapid growth rate combined with poor eating habits, menses, obesity, or strenuous activities.

Pathophysiology

Iron-deficiency anemia can be caused by any number of factors that decrease the supply of iron, impair its absorption, increase the body's need for iron, or affect the synthesis of Hgb. Although the clinical manifestations and diagnostic evaluation are similar regardless of the cause, the therapeutic and nursing care management depends on the specific reason for the iron deficiency. The following discussion is limited to iron-deficiency anemia resulting from inadequate iron in the diet.

During the last trimester of pregnancy, iron is transferred from the mother to the fetus. Most of the iron is stored in the circulating erythrocytes of the fetus, with the remainder stored in the fetal liver, spleen, and bone marrow. These iron stores are usually adequate for the first 5 to 6 months in a full-term infant but for only 2 to 3 months in preterm infants and multiple births. If dietary iron is not supplied to meet the infant's growth demands after the fetal iron stores are depleted, iron-deficiency anemia results. Physiologic anemia should not be confused with iron-deficiency anemia resulting from nutritional causes.

Although infants with iron-deficiency anemia are underweight, many are overweight because of excessive milk ingestion (known as **milk babies**). These children become anemic for two reasons: (1) milk, a poor source of iron, is given almost to the exclusion of solid foods, and (2) increased fecal loss of blood occurs in 50% of iron-deficient infants fed cow's milk.