days and occurs in 2% to 4% of breastfed infants (Blackburn, 2011). Rising levels of bilirubin peak during the second week and gradually diminish. Despite high levels of bilirubin that may persist for 3 to 12 weeks, these infants are well. The jaundice may be caused by factors in the breast milk (pregnanediol, fatty acids, and β-glucuronidase) that either inhibit the conjugation or decrease the excretion of bilirubin. Less frequent stooling by breastfed infants may allow for an extended time for reabsorption of bilirubin from stools.

Diagnostic Evaluation

The degree of jaundice is determined by serum bilirubin measurements. Normal values of unconjugated bilirubin are 0.2 to 1.4 mg/dl. In newborns, levels must exceed 5 mg/dl before jaundice (icterus) is observable. It is important to note, however, that the evaluation of jaundice is not based solely on serum bilirubin levels but also on the timing of the appearance of clinical jaundice; gestational age at birth; age in days since birth; family history, including maternal Rh factor; evidence of hemolysis; feeding method; infant's physiologic status; and the progression of serial serum bilirubin levels. The following criteria are indicators of pathologic jaundice that, when present, warrant further investigation as to the cause of the jaundice:

- Persistent jaundice over 2 weeks in a full-term formula-fed infant
- Total serum bilirubin levels over 12.9 mg/dl (term infant) or over 15 mg/dl (preterm infant); the upper limit for breastfed infant is 15 mg/dl
- Increase in serum bilirubin by 5 mg/dl/day
- Direct bilirubin exceeding 1.5 to 2 mg/dl
- Total serum bilirubin level over the 95th percentile for age (in hours) on an hour-specific nomogram (Fig. 8-16)