

hypocalcemia are outlined in [Table 8-4](#).

Drug Alert

Calcium preparations should *never* be administered by bolus rapid infusion in infants.

Quality Patient Outcomes

Neonatal Hypoglycemia

- Maintains serum blood glucose level above 45 mg/dl
- No clinical evidence of hypoglycemia or its effects
- Receives adequate carbohydrate intake

TABLE 8-4
Metabolic Complications

Hypoglycemia	Hypocalcemia
Definition	
Blood glucose concentration significantly lower than that in the majority of infants of the same age and weight (usually <45 mg/dl) (see also Adamkin and American Academy of Pediatrics, Committee on Fetus and Newborn, 2011 , for parameters for SGA, late preterm, and IDM or LGA infants)	Abnormally low levels of calcium in circulating blood (see values listed below)
Type	
<p>Increased or impaired glucose utilization: Large or normal-size infants who appear to have hyperinsulinism; infants born to women with diabetes; infants with increased metabolic demands, such as those with cold stress, sepsis, or after resuscitation; infants with enzymatic or metabolic endocrine defects</p> <p>Decreased glucose stores: Small or growth-restricted infants, preterm infants</p>	<p>Early onset: Appears in first 48 hours; appears in preterm infants who experienced perinatal hypoxia or sometimes in IDM</p> <p>Late onset: Cow's milk-induced hypocalcemia (neonatal tetany); apparent after first 3 to 4 days (high phosphorus-to-calcium ratio of cow's milk depresses parathyroid activity, reducing serum calcium levels); infants with intestinal malabsorption, hypoparathyroidism, or hypomagnesemia</p>
Clinical Manifestations	
<p>Vague, often indistinguishable from other newborn conditions</p> <p>Cerebral signs: Jitteriness, tremors, twitching, weak or high-pitched cry, lethargy, limpness, apathy, convulsions, and coma</p>	<p>Early onset: Jitteriness, apnea, cyanotic episodes, edema, high-pitched cry, abdominal distention</p> <p>Late onset: Twitching, tremors, seizures</p>