consist of clonic, tonic, subtle, and myoclonic seizures (Verklan and Lopez, 2011). Clonic, multifocal clonic, and migratory clonic seizures are more common in term infants.

TABLE 8-11

Classifications of Neonatal Seizures

Type	Characteristics
Clonic	Slow, rhythmic jerking movements
	Approximately 1 to 3/second
Focal	Involves face, upper or lower extremities on one side of body
	May involve neck or trunk
	Infant is conscious during event
Multifocal	May migrate randomly from one part of the body to another
	Movements may start at different times
Tonic	Extension, stiffening movements
Generalized	Extension of all four limbs (similar to decerebrate rigidity)
	Upper limbs maintained in a stiffly flexed position (resembles decorticate rigidity)
Focal	Sustained posturing of a limb
	Asymmetric posturing of trunk or neck
Subtle	May develop in either full-term or preterm infants but more common in preterm
	Often overlooked by inexperienced observers
	Signs: • Horizontal eye deviation • Repetitive blinking or fluttering of the eyelids, staring • Sucking or other oral-buccal-lingual movements • Arm movements that resemble rowing or swimming • Leg movements described as pedaling or bicycling • Apnea (common) Signs may appear alone or in combination
Myoclonic	Rapid jerks that involve flexor muscle groups
Focal	Involves upper extremity flexor muscle group
	No EEG discharges observed
Multifocal	Asynchronous twitching of several parts of the body
	No associated EEG discharges observed
Generalized	Bilateral jerks of upper and lower limbs
	Associated with EEG discharges

EEG, Electroencephalogram.

Adapted from Volpe J: Neonatal seizures. In Volpe J: *Neurology of the newborn*, ed 4, Philadelphia, 2008, Saunders.

Diagnostic Evaluation

Early evaluation and diagnosis of seizures are urgent. In addition to a careful physical examination, the pregnancy and family histories are investigated for familial and prenatal causes. Blood is drawn for glucose and electrolyte examination, and CSF may be obtained for testing of cell count and differential, protein, glucose, and culture.