

death or severe neurologic impairment—are for children submerged for more than 10 minutes and not responding to advanced life support within 25 minutes. Most children without spontaneous purposeful movement and normal brainstem function 24 hours after sustaining a submersion injury suffer severe neurologic deficits or death ([Caglar and Quan, 2016](#)). (See [Nursing Care Guidelines box](#).)

Nursing Care Guidelines

Establishing Brain Death in Children

1. Coma and apnea must coexist. Child must exhibit complete loss of consciousness, vocalization, and volitional activity.
2. Brainstem function must be absent, as defined by:
 - a. Midposition or fully dilated pupils in both eyes that do not respond to light. Drugs may influence and invalidate pupillary assessment.
 - b. Absence of spontaneous eye movements and those induced by oculoccephalic and caloric (oculovestibular) testing.
 - c. Absence of movement of bulbar musculature, including facial and oropharyngeal muscles.
 - d. Absence of the corneal, gag, cough, sucking, and rooting reflexes.
 - e. Absence of respiratory movements when child is removed from the respirator. Apnea testing using standardized methods can be performed but is done after other criteria are met.