hip, shoulder, and knee joints. Movements should be symmetric, smooth, and unrestricted.

Also assess muscle tone. By attempting to extend a flexed extremity, determine if tone is equal bilaterally. Extension of any extremity is usually met with resistance, and when released, the extremity returns to its previous flexed position. Hypotonia suggests some degree of hypoxia or neurologic disorder and is common in an infant with Down syndrome. Asymmetry of muscle tone may indicate a degree of paralysis from brain damage or nerve damage. Failure to move the lower limbs suggests a spinal cord lesion or injury. Sustained rhythmic tremors, twitches, and myoclonic jerks characterize neonatal seizures or may indicate neonatal abstinence syndrome. (See Neonatal Seizures and Drug-Exposed Infants, Chapter 8.) Sudden asynchronous jerking movements, quivering, or momentary tremors are usually normal.

Neurologic System

Assessing neurologic status is a critical part of the physical examination of newborns. Much of the neurologic testing takes place during evaluation of body systems, such as eliciting localized reflexes and observing posture, muscle tone, head control, and movement. However, several important mass (total body) reflexes also need to be elicited. These should be tested at the end of the examination because they may disturb the infant and interfere with auscultation. Two common newborn reflexes are elicited. The first is the grasp reflex. Touching the palms of the hands or soles of the feet near the base of the digits causes flexion or grasping (Fig. 7-8, *A*). The other is the Babinski reflex. Stroking the outer sole of the foot upward from the heel across the ball of the foot causes the big toe to dorsiflex and the other toes to hyperextend (see Fig. 7-8, *B*).