Neurologic dysfunction encompasses many different disorders, including diagnoses based on a cluster of symptoms. The physical therapist and physical therapist assistant are commonly involved in the care of the patient from the intensive care unit (ICU) to the time of discharge to the next level of care. Fortunately, some of the interventions that are performed by physical therapy have evidence to support the use and the outcome of the patient. While examination and treatment strategies are numerous, the physiological response of the patient needs to be considered in each interaction because many neurological conditions and comorbidities arise in patient care. Progress can often be seen with direct therapy intervention and is an exciting part of the overall care of the patient.

**ANATOMY AND PHYSIOLOGY**

Anatomically, the cerebral cortex is described by dividing the surface area into the following lobes: frontal, parietal, temporal, occipital, limbic, and insular. The frontal lobe is generally described as the executor of human function. It is responsible for organizing behavior, shaping self-awareness, and controlling the actions of our bodies. The parietal lobe serves as the sensory integrator for pain, temperature, detection of taste, and touch; it also coordinates the process of reading. The temporal lobe contains the primary auditory center along with regions that are responsible for emotion, memory, and speech. The occipital lobe contains the primary visual cortex and the visual association area (Figure 9–1).