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## OBJECTIVES

After reading this chapter, the student will be able to

- Discuss the International Classification of Functioning, Disability, and Health (ICF) and its relationship to physical therapy practice.
- Explain the role of the physical therapist in patient/client management.
- Describe the role of the physical therapist assistant in the management of patients with neurologic disorders.

## INTRODUCTION

The practice of physical therapy in the United States continues to change to meet the increased demands placed on service provision by reimbursement entities and federal regulations. The profession has seen an increase in the number of physical therapist assistants (PTAs) providing physical therapy interventions for adults and children with neurologic deficits. PTAs are employed in outpatient clinics, inpatient rehabilitation centers, assisted care, and pediatric facilities, school settings, and home health care agencies. Traditionally, the rehabilitation management of adult and children with neurologic deficits involved treatment directed at the amelioration of pain, motor symptoms, and functional impairments. Physical therapists and physical therapist assistants help individuals "maintain, restore, and improve movement, activity, and functioning, thereby enhancing health, well-being, and quality of life" (APTA, 2014). Physical therapy is provided across the lifespan to children and adults who "may develop impairments, activity limitations, and participation restrictions" (APTA, 2014). These limitations develop as consequences of various health conditions and the interaction of personal and environmental factors (APTA, 2014).

Sociologist Sigmund Nagel developed a model of health status that has been used to describe the relationship between health and function (Nagel, 1991). The four components of the Nagel Disablingness Model follow: *impairments, functional limitations, and disability* relative to the individual's *loss of health*. *Disease* is defined as a pathologic state manifested by the presence of signs and symptoms that disrupt an

individual's homeostasis or internal balance. *Impairments* are alterations in anatomic, physiologic, or psychological structures or functions. *Functional limitations* occur as a result of impairments and become evident when an individual is unable to perform everyday action with a specific part of the person's daily routine. Examples of physical impairments include a loss of strength in the anterior deltoid muscle or a loss of 15 degrees of active shoulder flexion. These physical impairments may or may not limit the individual's ability to perform functional tasks. Disability in donning the sock may prohibit the individual from achieving the desired heelstrike during ambulation, whereas a 15-degree limitation in shoulder range may have little impact on the person's ability to perform self-care or dressing tasks.

According to the disablement model, a *disability* results when functional limitations become so great that the person is unable to meet age-specific expectations within the social or physical environment (Vellinga and Jette, 1994). Society can erect physical and social barriers that interfere with a person's ability to perform expected roles. The social attitudes encountered by a person with a disability can result in the community's perception that the individual is handicapped. Figure 1-1 depicts the Nagel classification system of health status.

The second edition of the *Guide to Physical Therapist Practice* incorporated the Nagel Disablingness Model into its conceptual framework of physical therapy practice. The use of this model has directed physical therapists (PTs) to focus on the relationship between impairment and functional limitation and the patient's ability to perform everyday activities. Increased independence in the home and community