

**American Academy of Neurology  
Resident Core Curriculum  
Section on Geriatric Neurology**

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There are several important concepts that the well-trained resident in neurology should master with regard to geriatric neurology. The elderly are a heterogeneous group: the average 65-year-old is not the same as an 85-year-old. Understanding the scientific basis of aging sets the stage for interpreting the presentations of disease and variations in response to treatments in our aging population. Thus at the concept level there are several methodological tenets that should be well known to the resident. These include the working definitions of "normal" aging and its variations, framing the medical literature from a longitudinal and age-associated heterogeneity perspective, and being able to identify the many genetic, physiological and biochemical changes that may occur with aging. A large and important area of this basic background also includes a firm grasp of geriatric-pharmacology. Most important for the resident is to master not only the age-related changes found in most domains of the nervous system such as in cognition, behavior, motor function, and sensory functions, but to be able to understand how these changes result in functional disabilities.

The resident should understand the special challenges of clinical assessment of the elderly including differential diagnosis of common geriatric syndromes such as visual and auditory disturbances, delirium, depression, dementia, weakness, falls, and transient losses of consciousness. Particularly important is understanding the relationship of these syndromes occurring in combination in the same patient. Common diseases or disorders of the elderly (e.g., substance abuse, cerebrovascular disease, neurodegenerative diseases, neuropathies, various neoplasms, infections and seizure disorders) have different presentations and etiologies in the elderly. These must be recognized for effective management. In order to be an excellent geriatric diagnostician the resident needs to be thoroughly familiar with the behavioral and cognitive examination of the elderly, as well as the general neurologic examination expected with aging. The interpretation of neurologic laboratory testing encompassing neuroimaging, neurophysiology and tests of biochemical and other measures relative to the elderly should be mastered.

Treatment and management of the syndromes and diseases associated with aging needs to be emphasized. In this area is included not only the obvious need to know how to use disease-specific therapies, but the skills necessary to balance knowledge of anticipated side-effects with quality of life unique to the elderly. The ability to manage the patient with an interdisciplinary team approach and effectively utilize community resources is a concept that is axiomatic to geriatrics. The resident should be soundly grounded in an approach that emphasizes maintaining functional abilities, and illness prevention in the face of instances of limited resources.