

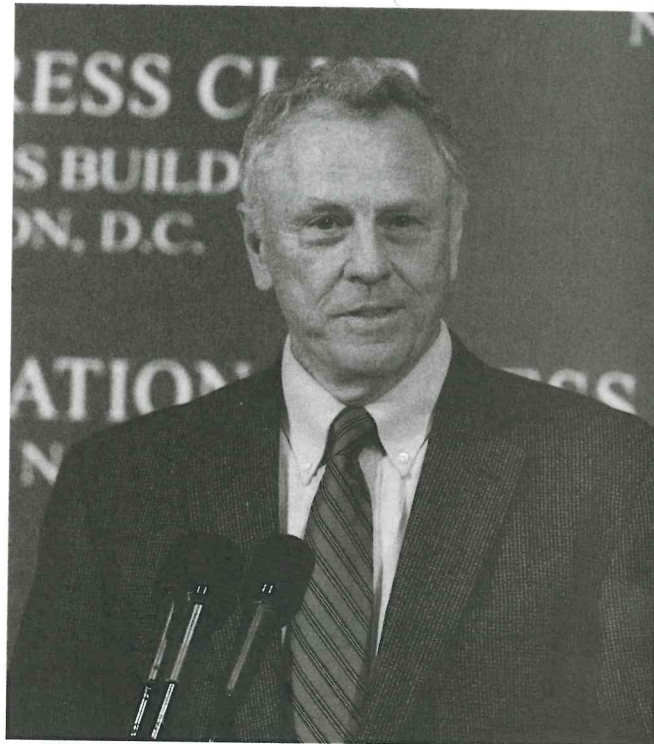
A New Psychosocial Stage: Elderhood

Objective 1. To identify elderhood as a unique developmental period for those of unusual longevity—a stage with its own developmental tasks and psychosocial crisis.

The fact that an increasing number of people are reaching advanced years and that they share certain personal and behavioral characteristics leads us to hypothesize a new stage of psychosocial development that emerges at the upper end of the life span, after one has exceeded the life expectancy for one's birth cohort. This is the stage of life that is experienced by the long-lived in a community who have outlived most of their age-mates. Drawing on the concept of village elders who share their wisdom and help resolve community disputes, we call this stage **elderhood**. Although it was not specifically identified in Erikson's original formulation of life stages, in the book *Vital Involvement in Old Age* (Erikson et al., 1986), Erikson began to characterize the dynamics of psychosocial adaptation in this period of life. Throughout this chapter, we have drawn on Erikson's insights to enrich our appreciation of the courage, vitality, and transformations that accompany elderhood.

We have formulated a psychosocial analysis of development in elderhood based on research literature, firsthand reports, and personal observations to describe the developmental tasks, psychosocial crisis, central process, prime adaptive ego quality, and core pathology of this stage. We approach this formulation of a new stage realizing that in many domains—especially physical functioning, reaction time, memories, and cognitive abilities—variability increases significantly with age. With advanced age, a person is less constrained by pressures of institutionalized roles and social demands. As a result, personal preferences and genetically based sources of individuality are freer to be expressed. In addition, individual differences reflect the diversity of educational experiences, health or illness, exposure to harsh conditions, and patterns of work and family life.

The concept of *norm of reaction* introduced in Chapter 4 (Prenatal Development and Birth) offers a framework for understanding the enormous variability in vitality and functioning during elderhood. The quality of functioning in elderhood is a product of the interaction between genetic factors and environmental supports. Genetic factors influence longevity, vulnerability to illnesses, intelligence, and personality factors that contribute to coping (Pollack, 2001). Support for a genetic basis to longevity is provided from observations from the New England Centenarian Study that found that half the centenarians had grandparents, siblings, and other close relatives who also reached very advanced ages (Perls, Kunkel, & Puca, 2002). Environmental conditions including poverty, discrimination, social alienation, and lack of social support are associated with lower levels of functioning in relation to one's potential. In contrast, adequate finances, social integration,



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social support, and access to appropriate services are linked to higher levels of functioning in relation to one's potential and to greater resilience in the face of illness.

The variations in life experiences and outlook among the very old are great. As a result, chronological age becomes less useful as an indicator of aging. Neugarten (1981) offered a distinction that helps clarify the functional differences among the very old. She described two groups: the **old-old** and the **young-old**. The old-old have "suffered major physical or mental decrements," which increase their dependence on health and social services. This group will grow as the number of adults over 75 increases. Currently, it forms a minority of the very old. The majority of people over 75 can be described as young-old. They are competent, vigorous, and relatively healthy. They live in their own households and participate in activities in their communities. For example, among the New England centenarians studied, 90% were functionally independent and relatively healthy up until age 92 (Perls & Terry, 2007).

Our intention is to discuss some of the most salient characteristics of life after age 75 and to articulate what appears to be a psychosocial crisis specific to this period. We report evidence of common challenges and successful strategies for coping amid the great diversity of individual experiences.

Developmental Tasks

Despite the wide variability in capacities, lifestyles, and worldviews in later life, three themes characterize the challenges that face individuals in elderhood. First, they must adapt to *physical changes*, monitoring their health and modifying their lifestyles to accommodate these changes. Second, they must conceptualize their lives within a new *time frame*, realigning their thoughts about past, present, and future in order to stay connected to the present in a meaningful way. Third, they must develop new **life structures**—especially living arrangements and social relationships—that provide comfort, interest, and appropriate levels of care.

Coping with the Physical Changes of Aging

Objective 2. To describe some of the physical changes associated with aging, including changes in fitness, behavioral slowing, sensory changes, and vulnerability to illness, and the challenges that these changes pose for continued psychosocial well-being.

There is no way to avoid the realization that with advanced age one's body is not what it used to be. Erikson described it as follows:

With aging, as the overall tonus of the body begins to sag and innumerable inner parts call attention to themselves through their malfunction, the aging body is forced into a new sense of invalidness. Some problems may be fairly petty, like the almost inevitable appearance of wrinkles. Others are painful, debilitating, and shaming. Whatever the severity of these ailments, the elder is obliged to turn attention from more interesting aspects of life to the demanding requirements of the body. This can be frustrating and depressing. (Erikson et al., 1986, p. 309)

Aging, which is a continuous process over the life span, includes both development and decline. In later life, some physical changes are considered to be normal or expected, and not especially related to disease. People who are well educated, have access to health care and other resources, and have observed healthy lifestyle practices in earlier stages of life are still going to experience some of the normative changes of aging when they reach advanced age, such as some loss of muscle strength or difficulty returning to normal respiration after periods of exertion. However, certain lifestyle practices including smoking cigarettes, alcohol and drug abuse, poor diet, and a sedentary life are likely to accelerate these patterns of normal decline. Other changes are disease related and not a result of normal aging. Some genetic factors appear to increase vulnerability to these diseases, but so do lifestyle factors, exposure to toxins, and stress. Thus, we want to emphasize that the **physical changes of aging** are multidimensional

and variable across individuals. Some people who have observed a healthy lifestyle in early and middle adulthood still experience diseases whereas others who have led a more risky lifestyle do not experience these diseases. We do not fully understand the extent to which genetic, environmental, social, and lifestyle factors help support continued health or vulnerability to disease in elderhood.

The theme of the physical changes of aging can be approached much like its counterpart in early adolescence. Although the rate of change may be slower, older adults notice changes in a wide range of areas, including appearance, body shape, strength and stamina, and the accumulation of chronic illnesses. Just as in adolescence, the rate and sequence of changes vary from person to person. This section will identify major areas of physical change. The patterns of change described here are average trends. Not all adults experience all of these changes, nor to the same degree. The important issues are the meaning that adults attribute to their physical condition and the coping strategies they invent to adapt to these changes.

Most of us know older adults who are vigorous and zesty. On the other hand, we also know older adults who are painfully limited in their ability to function because of physical disabilities. Many factors influence the progression of physical changes associated with aging, not the least of which is the level of fitness that was established and maintained during early and middle adulthood. The topics of fitness, sleep and rest, behavioral slowing, sensory changes, health, illness, and functional independence combine to provide a picture of the physical changes of aging.

Fitness

There is a great deal of variation in **fitness** among people after age 75 as patterns of activity or inactivity, endurance or frailty, and illness or health take their toll. What is described here might be thought of as the usual patterns of aging. However, these changes are not inevitable and, in many instances, are reversible or modifiable with appropriate intervention (Dobek, White, & Gunter, 2007).

What are the elements of physical fitness that are typically assessed in older populations? Seven components are often included in measures intended to assess fitness among the elderly: coordination, reaction time, balance, muscle strength, muscle endurance, flexibility, and cardiorespiratory endurance (Hilgenkamp, van Wijck, & Evenhuis, 2010). Among those 75 and older, elders who exhibit high levels of fitness are also likely to report a better overall quality of life, higher cognitive functioning, lower levels of depression, and a lower likelihood of encountering physical disabilities as they age (Tainaka, Takizawa, Katamoto, & Aoki, 2009; Takata et al., 2010; Voelker-Rehage, Godde, & Staudinger, 2010).

Most people begin to notice declines in their physical health and fitness in their late twenties and early thirties. As those who love baseball are likely to claim, "The legs are the first to go." On a more positive note, most people's strength

and capacity for moderate effort are about the same at age 70 as they were at age 40 (Stevens-Long & Commons, 1992). However, older people are less resilient after a period of prolonged exertion. The respiratory and circulatory systems usually degenerate to some extent and are less capable of providing the heart and muscle tissue with oxygenated blood as quickly as they once could. One result is that sudden changes in posture can cause an older person to feel lightheaded. In order to adapt successfully to this kind of bodily change, an older person may find it necessary to move more slowly and to change positions more deliberately. This observable change in the tempo of movement may be incorrectly interpreted as fatigue or weakness when, in fact, it is often a purposeful strategy for preventing dizziness.

Slowed metabolism reduces the need for calories, but there are new risks. Blood sugar levels are likely to rise after eating, and body fat increases. These conditions increase the risk of type 2 diabetes. Reduction in food intake—particularly the elimination of foods such as milk—may result in the lack of essential vitamins and minerals in an older person's diet. The resulting malnutrition may then contribute to osteoporosis and iron deficiencies, which produce feelings of weakness, fatigue, and a lack of resilience (Klesges et al., 2001). Many health concerns of later adulthood that may have been attributed to the aging process itself are in fact a direct or indirect result of malnutrition. In order to cope successfully with a diminished appetite, a very old person must become more conscientious in selecting foods that will provide the nutritional elements necessary for healthy functioning.

An increasing number of factors make it difficult to maintain a high level of physical fitness in later life. Some aspects of aging that impact fitness are a result of the body's natural process as cells replicate again and again and, through metabolism, produce by-products that can be harmful to the body itself. Some aspects of aging that reduce fitness are a result of choices and circumstances such as a sedentary lifestyle, smoking, a diet heavy in fats, too much time in the sun, exposure to environmental toxins, and lack of health care.

Commitment to physical fitness is important for adults in order to face their later years in the best possible physical condition. In its report *Healthy People 2010*, the U.S. government placed inadequate physical activity at the top of the list of health concerns (U.S. Department of Health and Human Services, 2001). A primary goal is to promote regular, daily physical activity for at least 30 minutes per day. Regular physical activity is associated with decreased rates of death from heart disease, lower risk of diabetes and colon cancer, and prevention of high blood pressure. Physical activity also improves muscle and bone strength, contributes to weight control, and improves strength, flexibility, and balance. Despite these advantages, 55% of those ages 75 and older do not engage in any leisure time physical activity, and 87% say that they never engage in vigorous physical activity (National Center for Health Statistics, 2010).

With advancing age, some people tend to become more sedentary and lose interest in physical activity. In order to maintain optimal functioning and to retard the degenerative effects of aging, very old adults must continue to have frequent and regular opportunities for physical exercise. A regular program of walking or other aerobic exercise can enhance cardiovascular functioning and reverse some of the effects of a sedentary adult lifestyle. Research on weight, or resistance, training shows that even among the very old, a steady program of exercise builds muscle strength, which contributes to agility and an overall sense of well-being (Ades, Ballor, Ashikaga, Utton, & Nair, 1996). Weight-bearing exercises help offset the normal processes of loss of muscle tone and bone density, improving balance and reducing the likelihood of falls. Experimental studies of the effects of exercise on cognitive functioning show that it also leads to improvements in various central nervous system functions. These benefits of exercise are attributed in part to higher levels of oxygen, which improve the metabolism of glucose and neurotransmitters in the brain, as well as to increased levels of arousal, which increase response speed (Newell, Vaillancourt, & Sosnoff, 2006).

Sleep and Rest

Older adults seem to need about the same amount of sleep, 7 to 9 hours a night, as younger adults. However, older adults tend to go to sleep earlier and wake up earlier than when they were younger, and spend less time in deep sleep, which may be why older adults often report being light sleepers (National Institute on Aging, 2009c). More significant sleep problems occur for older adults who have various medical conditions that involve pain, sleep apnea, movement disorders, and urinary problems (Ohayon, Carskadon, Guilleminault, & Vitiello, 2004).

The most common sleep problem in elderhood is **insomnia**, which involves difficulties falling asleep or staying asleep. Insomnia may be a temporary problem associated with particular worries, excitement over an upcoming event, or preoccupation with an unresolved challenge. On the other hand, insomnia may be a symptom of other medical conditions, such as unmanaged pain, or difficulty breathing. An interesting problem is that people who have had a bout of insomnia may exacerbate their problem by worrying about whether they will be able to fall asleep (National Institute on Aging, 2009c).

Many older adults take daytime naps; an estimated 15% of those ages 55–64 and 25% of those ages 75–84 nap. There may be benefits from the practice of napping. In a study that tracked over 23,000 Greek adults for 6 years, those who napped 3 times a week or more for about half an hour had a substantially lower risk of heart attacks than those who did not nap (Naska et al., 2007). Napping may help reduce stress and allow a person to engage the remainder of the day with more energy. In a study of napping among older adults, those who had a regular habit of sleeping at about the same time each day and waking themselves up after about half an hour

had a greater sense of self-efficacy and less experience of sluggishness in the afternoon and evening (Kaida et al., 2006).

The relationship of napping to well-being is not fully understood. People who are able to nap during the day may also be in greater control of their lives and less exposed to stress. On the other hand, taking a nap may be a deliberate way to reduce stress, relax, and prepare to engage more fully in the remaining hours of the day. Not surprising, napping several times a day is associated with unusual feelings of sleepiness during the day, depression, and pain (Foley et al., 2007).

Behavioral Slowing

One of the most commonly noted markers of aging is a gradual slowing in response to stimuli. **Behavioral slowing** is observed in motor responses, reaction time, problem-solving abilities, memory skills, and information processing (Salthouse, 1996). **Reaction time** is a composite outcome of the time it takes to perceive a stimulus, retrieve related information from memory, integrate it with other relevant stored information, reason as necessary about the required action, and then take action—whether that means the time it takes to press a button after detecting a signal, or the time it takes to complete a crossword puzzle or solve a math problem. Age-related slowing is more readily observable in complex tasks requiring mental processing than in routine tasks (Lemaire, Arnaud, & Lecacheur, 2004). The more complex the task, the greater the **processing load**—that is, the more domains of information are called into play and the more time it takes to select response strategies.

The number of tasks presented in a sequence and the complexity or choice required to make a response are all factors that influence response time. Under conditions where a choice of response is required, older adults do not show evidence of slowing in the early phase of processing the stimuli but in the executive functions associated with enacting the appropriate response (Yordanova, Kolev, Hohnsbein, & Falkenstein, 2004). In many studies, older adults show improvements in response time when given opportunity for practice. However, when older and younger adults are both given opportunities for practice, the older adults do not improve as much as the younger, and the performance gap may actually increase (Hein & Schubert, 2004).

Biological, learned, and motivational factors have been identified to account for behavioral slowing. At the biological level, there is evidence of the slowing of neural firing in certain brain areas, which may result in a slower speed of information processing. The extent of this slowing depends on the kinds of tasks and specific cognitive processes involved. Speed of processing may be only one of many factors responsible for age-related changes in cognitive processing (Hartley, 2006).

The slowing of responses may also be a product of learned cautiousness. With experience, people learn to respond slowly in order to avoid making mistakes. When confronted with new, experimental problem-solving tasks, older adults may take longer because they are not confident in using a new strategy. They may revert to a more familiar, if more

time-consuming, approach in order to solve the problem correctly. Thus, a conservative orientation to the selection of problem-solving strategies may result in slower responses but not be strictly due to neurological causes (Touron & Hertzog, 2004). Depending upon the task, cautiousness may be related to prior experiences of instability or falling. As older adults step down from the sidewalk to the street, or step off an elevator or onto an escalator, they move more slowly to ensure that they have good footing and will not slip or fall. Finally, response slowing may be a product of a low level of motivation to perform a task. In experiments in which reaction time is being tested, adult participants may be uninterested in the task and thus unwilling to try to respond quickly.

The implications of the consequences of behavioral slowing are currently being examined. Some researchers have argued that even the slightest reduction in the speed of neural firing may result in reduced sensory and information-processing capacities. Furthermore, response slowing may reduce a person's chances of survival if a situation arises in which a sudden evasive action or immediate response is required. Others have suggested that if a moment of thought is required before an action is taken, slowness may increase a person's chances of survival.



As a result of behavioral slowing, it takes longer for elders to perform daily tasks. Her trips to the market take May more time than they did 10 years ago, but she still enjoys her shopping and the satisfaction of preparing her meals with the best ingredients.

A common consequence of slowing is its impact on cognitive functioning. If the nervous system functions at a slower rate, it takes more time to scan and perceive information, search long-term memory, integrate information from various knowledge domains, and make a response (Madden, 2001). With increased input each year, it is possible that the time needed for processing information increases. In the face of complex cognitive tasks, information may be lost, or distractions may intervene if the process takes too long (Birren & Fisher, 1992). For example, Hertzog (1989) examined the relationship of age and speed of performance in a variety of mental abilities among people ranging in age from 43 to 89. He found that the speed of performance measure was a better predictor of mental abilities than was age. Other research looked at crystallized and fluid intelligence. Recall from Chapter 13 (Development in Later Adulthood) that crystallized intelligence tends to increase with age, whereas fluid intelligence declines. When the factor of speed of responding was removed from the tests of fluid intelligence, the decline with age was significantly less. These studies support the claim that changes in the speed of responding account for much—though probably not all—of the documented evidence of decline in intellectual performance with age.

The debate continues, however, about whether this slowing is general—influencing all types of cognitive and motor activity—or specific to certain domains. There is considerable evidence that contemporary circumstances—especially physical fitness and health, as well as the kinds of medications one is taking and the presence of immediate stressors in one's life—influence the speed of responding. In each situation, motor performance results from the adaptive self-organization of responses that are a product of how the person assesses the situation; the person's physical strength, flexibility, and endurance; and the person's ability to control posture, movement, and dexterity. Speed of responding will vary depending on what type of response is required and which systems constrain behavior (Newell, Vaillancourt, & Sosnoff, 2006). One 80-year-old woman may be able to

walk through an airport quickly to get to her gate, but may be slow in reading and evaluating the information that tells whether her flight is on time or delayed. Another 80-year-old woman may be able to read the information about the flight and quickly assess whether her flight is on time, but may take much longer to get to the departure gate.

Because slowing occurs gradually, most adults compensate for it by making their environments more convenient or by changing their lifestyles. However, slowing becomes more hazardous in situations that require the older adult to keep pace with a tempo that cannot be modified, such as highway driving or crossing the street with the light. For instance, some older people encounter problems because the amount of time the light stays green at a pedestrian crosswalk is insufficient to permit them to get to the other side of the street safely. As older people recognize some situations in which they have trouble responding quickly, they must review the tempo of their day. Very old people may become more selective in their choice of activities so that they can allocate enough time for the tasks most important to them and perform them satisfactorily. This means exercising greater control over their time and being less concerned about whether they are in harmony with the tempo of others.

Sensory Changes

Every sense modality—vision, hearing, taste, touch, and smell—is vulnerable to age-related changes. With age, greater intensity of stimulation is required to make the same impact on the sensory system that was once achieved with lower levels of stimulation. Some of the changes in vision, hearing, and taste and smell are given in Table 14.1. These changes begin in early adulthood, and their effects increase throughout the remainder of life (Erber, 2005).

Vision. **Visual adaptation** involves the ability to adjust to changes in the level of illumination. Pupil size decreases with age, so that less light reaches the retina. Thus, older adults need higher levels of illumination to see clearly, and

it takes them longer to adjust from dark to light and from light to dark. Many older adults are increasingly sensitive to glare and may draw the shades in their rooms to prevent bright light from striking their eyes. Slower adaptation time and sensitivity to glare interfere with night driving. Some of the visual problems of people older than 75 are difficulties with tasks that require speed of visual performance, such as reading signs in a moving vehicle; a decline in near vision, which interferes with reading and daily tasks; and difficulties in searching for or tracking visual information (National Institute on Aging, 2009a). About 16.5% of those 75 and older report that they have trouble seeing (National Center for Health Statistics, 2010).

Several physiological conditions seriously impair vision and can result in partial or total blindness in old age. These conditions include cataracts, which are a clouding of the lenses, making them less penetrable by light; deterioration or detachment of the retina; corneal disease, which can result in redness, watery eyes, pain, and difficulties seeing; and glaucoma, which is an increase in pressure from the fluid in the eyeball. The incidence of visual impairments, especially cataracts, increases dramatically from later adulthood (65 to 74) to elderhood (beyond 75) (He, Sengupta, Velkoff, & Barros, 2005).

About 18% to 20% of elders experience problems with cataracts. According to vision experts, recent medical innovations have made cataract surgery much less complicated than it was in the past. Nine out of 10 people who have cataract surgery regain very good vision, somewhere between 20/40 and 20/20 (Lee, 2002). Problems with glaucoma can be treated with eyedrops, lasers, or surgery. Retinal disorders, especially age-related macular degeneration, can be prevented or treated with dietary supplements.

Loss of vision poses serious challenges to adaptation—it has the effect of separating people from contact with the world. Such impairment is especially linked with feelings of helplessness. Most older adults are not ready to cope with the challenge of learning to function in their daily world without being able to see. For them, the loss of vision reduces their activity level, autonomy, and willingness to leave a familiar setting. For many older adults, impaired vision results in the decision to give up driving altogether, or at least night driving, causing a significant loss of independence. However, this loss can be minimized by the availability of inexpensive, flexible public transportation.

Hearing. Hearing loss increases with age. About 45% of those ages 75 and older have some trouble with their hearing (National Center for Health Statistics, 2010). The most common effects of hearing loss are a reduced sensitivity to both high-frequency (high-pitched) and low-intensity (quiet) sounds and a somewhat decreased ability to understand spoken messages. Certain environmental factors—including exposure to loud, unpredictable noise, and injuries, such as damage to the bones in the middle ear—influence the extent of hearing loss.

Loss of hearing interferes with a basic mode of human connectedness—the ability to participate in conversation. Hearing impairment may be linked to feelings of isolation or suspiciousness. A person may hear things imperfectly, miss parts of conversations, or perceive conversations as occurring in whispers rather than in ordinary tones. There are a variety of devices that can help support individuals who have hearing loss. These include hearing aids, amplifying devices that can make it easier to hear on the phone, alert systems coordinated with doorbells or smoke detectors, and cochlear implants that are surgically implanted to help overcome certain specific types of hearing loss (National Institute on Aging, 2009b).

Being aware of one's hearing loss and its impact on social interactions is the first step in learning to compensate for diminished auditory sensitivity. Knowing the people one is with and believing that one is valued by them can help reassure a person about the nature of conversations and allay suspicions. Elders with hearing loss may ask for a quiet spot in a restaurant, or ask friends to speak one at a time in a group setting. Self-esteem plays an important part in this process. The older person with high self-esteem is likely to be able to make the intellectual adjustment needed to interpret interactions and to request clarification when necessary. Such requests may even serve to stimulate greater interaction and produce greater clarity in communication. Older people with a hearing loss and high self-esteem tend to insist that people who want to communicate with them should face them when they speak.

In contrast, older people who have low self-esteem are likely to be more vulnerable to suspicions about the behavior of others because they doubt their own worth. They are more likely to perceive inaudible comments as attempts to ridicule or exclude them. These experiences contribute to feelings of rejection and can produce irritability and social withdrawal.

About 20% of those ages 75 and older have multiple sensory impairments. Those who have both visual and hearing impairments are more likely to report reduced social interactions, difficulty getting together with friends, and are at greater risk for falls, possibly due to the lack of sensory cues that help support navigation in unfamiliar settings (He et al., 2005).

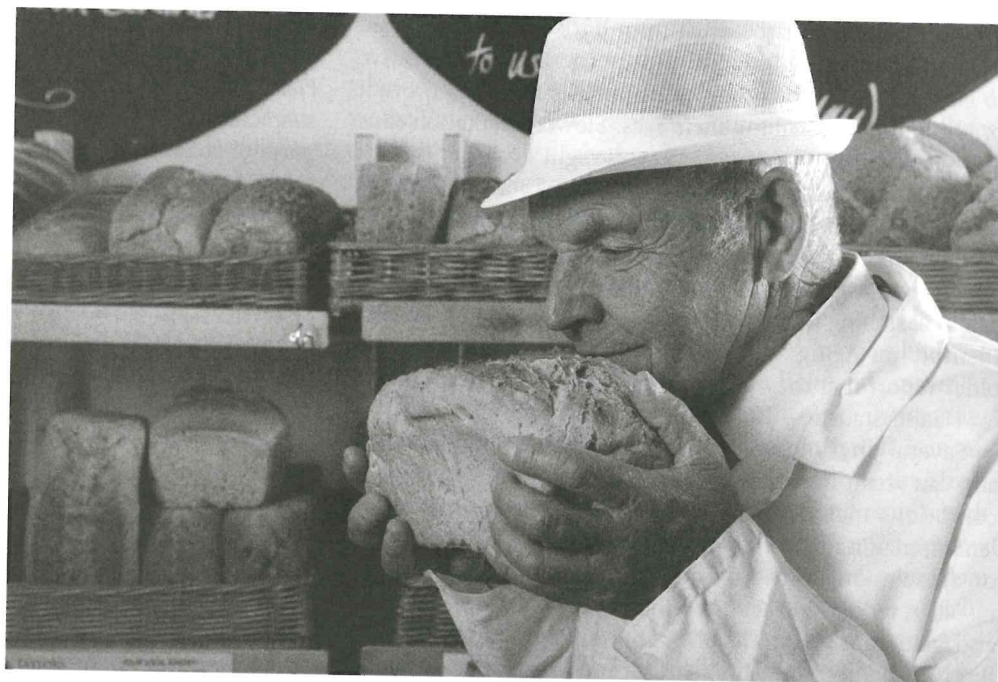
Taste and Smell. There are taste receptors throughout the mouth, including on your tongue, the roof of your mouth, and your throat. These taste receptors detect flavors of food based on five tastes: sweet, salty, bitter, sour, and tangy. In addition, the smell of food contributes to its flavor, and many would argue that the appearance of food contributes to its appeal. With age, the number of taste buds decreases. Older adults have a higher threshold than young adults for detecting sweet, sour, bitter, and salty tastes. Some of this reduced sensitivity may be related to the impact of certain medications, gum disease, dentures, some infections, cancer treatments, or alcohol consumption (National Institute on Aging, 2009d). In order to improve the taste of food, older adults may add salt or sugar, which may aggravate existing conditions such as high blood pressure or diabetes.

TABLE 14.1 Changes in Sensory Systems After Age 20

AGE GROUP	VISION	HEARING	TASTE AND SMELL
20–35	Constant decline in accommodation as lenses begin to harden at about age 20	Pitch discrimination for high-frequency tones begins to decline	No documented changes
35–65	Sharp decline in acuity after 40; delayed adjustment to shifts in light and dark	Continued gradual loss in pitch discrimination to age 50	Loss of taste buds begins
65+	Sensitivity to glare; increased problems with daily visual tasks; increases in diseases of the eye that produce partial or total blindness	Sharp loss in pitch discrimination after 70; sound must be more intense to be heard	Higher thresholds for detecting sour, salt, and bitter tastes; higher threshold for detecting smells, and errors in identifying odors

Source: Based on Newman and Newman, 1983.

Lester takes great delight in the smell of freshly baked bread, one of the foods he selects every other day at the market near his home.



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Older adults also require greater intensity to detect odors and are more likely to misidentify them (Recepto, Mazzoleni, Rapisarda, & Di Fazio, 1996). The sense of smell can keep a person safe. Smells related to smoke, gas leaks, spoiled food, or household chemicals are important indications of a possible environmental problem. Loss of smell in older adults can increase their vulnerability to illness or accidents if they ignore these cues. Changes in the senses of smell and taste may result in a loss of appetite or a disruption of normal eating habits. Loss of appetite (which may accompany illness and new medications), pain due to dental problems, and changes in the digestive system all contribute to malnutrition among the elderly.

Coping with Sensory Changes. As a result of the various patterns of aging among the very old, it is impossible to prescribe an ideal pattern of coping. The SOC model, which was introduced in Chapter 13 (Development in Later Adulthood), becomes increasingly relevant as sensory and motor functions are impaired. According to this model, in order to cope effectively, older adults must select the areas where they are most invested in sustaining optimal functioning and direct their resources to enhancing those areas, while compensating for the areas in which functioning is more limited. What one hopes to achieve is a balance between self-sufficiency and willingness to accept help, preserving one's dignity as much as possible and optimizing day-to-day mobility. This is described in the following excerpt from Erikson's study of the very old:

Appropriate dependence can be accommodated and accepted by elders when they realistically appraise their own physical capacities. One of our more practical elders simply states, "Of course, you're still interested in everything. But you don't

expect yourself to do everything, the way you used to. Some things you just have to let go." However, inappropriate restriction can be, in its way, insulting and belittling. In describing his current life, one widowed man expresses both his refusal to accept restriction and his willingness to rely on appropriate assistance: "I can stay up here in the woods because I know if I really need help, my son will be here inside of three hours. Now, this deal with fixing my own water pipes, I'd have never tried that without my son so nearby, and I didn't even need him." (Erikson et al., 1986, pp. 309–310)

Health, Illness, and Functional Independence

How can we characterize the level of health, illness, and functional independence in later life? A mild but persistent decline in the immune system is observed as a correlate of aging. As a result, older adults are more susceptible to infections and take a longer time to heal. Substantial numbers of older adults are afflicted with one or more chronic conditions, such as arthritis, osteoporosis, diabetes, or high blood pressure, which may require medication and interfere with daily functioning.

Osteoarthritis is the most common type of arthritis for older adults. This type of arthritis results when the cartilage that pads bones in a joint wears away. The joints may feel stiff when a person has not moved for a while. Other symptoms include temporary or chronic pain, and gradual loss of mobility in the affected joints. **Osteoporosis** is a disease that weakens bones so that they break easily. Bone tissue is continuously broken down and replaced. With age, more bone is lost than is replaced. Although women are at greater risk of osteoporosis than men, after age 70 men and women lose bone at about the same rate (National Institute on Aging, 2009e, 2009f).

Data from the National Health Interview Survey (National Center for Health Statistics, 2010) provide a look at the relationship of age to difficulties in physical functioning.

Participants were asked about whether they had certain upper-body and lower-body limitations. Upper-body limitations included such things as reaching up over one's head or using one's fingers to grasp a handle. Lower-body limitations included walking for a quarter mile or stooping, crouching, or kneeling. The percentage of respondents who reported difficulty in one or more areas increased from 28% of those ages 65 to 74, to 48% among those 75 and older. The area of most difficulty was standing for 2 hours, with 33% of those over age 75 reporting difficulties. This suggests that many elders would not go to an outdoor concert without bringing a chair.

One of the most difficult health challenges of elderhood is a group of disorders referred to as **organic brain syndromes**. These conditions, which result in confusion, disorientation, and loss of control over basic daily functions, present obstacles for adaptation to the person with the disease as well as the caregivers who are responsible for the older person's well-being (see the box on dementia).

Do people generally experience a rapid, general decline in health after age 65 or 70? Not according to self-ratings. In a national survey of older adults, people were asked to rate their health from poor to excellent. In the 75 to 84 age range, 71% of non-Hispanic Whites, 54% of non-Hispanic Blacks, and 50% of Hispanics rated their health as good, very good, or excellent. Among those 85 and older, the percentage who rated their health as good, very good, or excellent declined somewhat for the three groups, to 67%, 52%, and 53%, respectively (Federal Interagency Forum on Aging Related Statistics, 2004).

Among those in their eighties and early nineties, one health-related crisis may result in a marked decline in other areas. For example, the loss of a spouse may result in social withdrawal, loss of appetite, sleep disturbance, loss of energy, unwillingness to take medication, and decline in physical activity. All of these changes can produce a rapid deterioration of the respiratory, circulatory, and metabolic systems.

Studies of people in their later nineties and older find that these elders demonstrate unexpectedly good health. They appear to be more disease free than those who are 10 or 15 years younger. Perls (2004) suggested that a combination of genetic factors protect some people from the diseases of aging through two complementary processes. First, they are less vulnerable to some of the damaging effects of *oxygen radicals* that destroy DNA and cells. Thus, during their seventies and eighties, they do not suffer from the major diseases such as heart disease, cancer, stroke, or Alzheimer's disease. Second, they have a greater *functional reserve*, meaning that they require less of their organs to perform basic adaptive functions, so that they can tolerate a degree of damage without losing basic capacities. Studies of centenarians confirm this view of aging; they typically have a short period of poor health before death rather than suffering from prolonged disease-torn illness and disability.

In contrast to negative stereotypes about later life, the level of independent functioning among adults 80 years and older is high. Figure 14.1 shows the percentages of non-institutionalized people in three age groups who needed help in six activities of daily living (ADLs): bathing/showering,

dressing, eating, getting in and out of bed or a chair, walking, and using the toilet. The area of greatest limitation is walking. The percentage of adults needing assistance is small for those ages 65 to 74, increases slightly for those

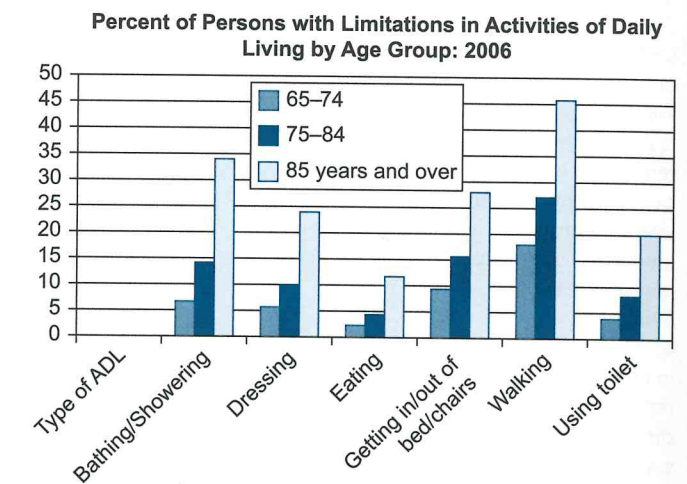
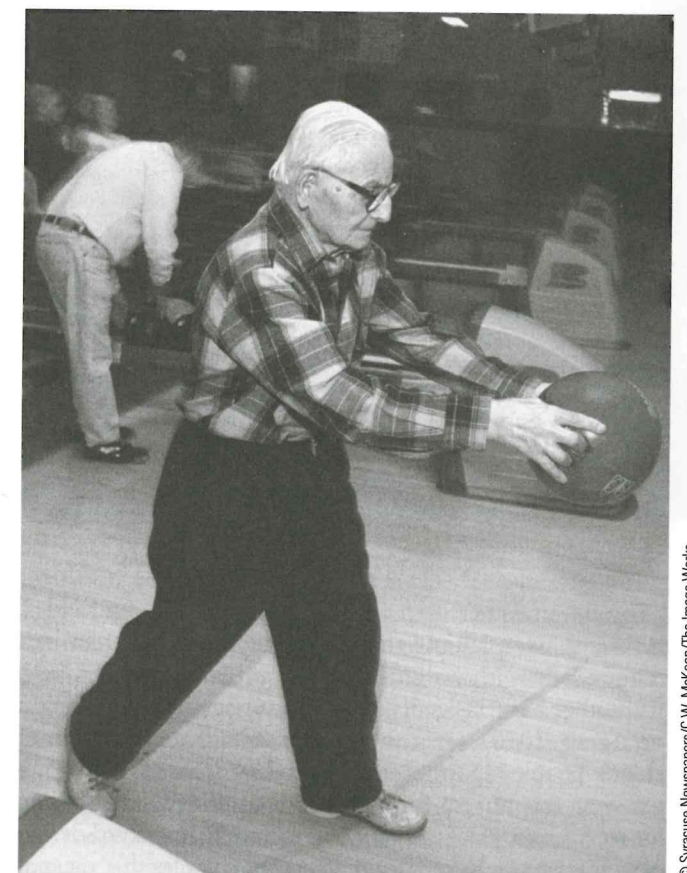


FIGURE 14.1 Limitations in Activities of Daily Living (ADLs) by Age, 2006

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Those who survive into their nineties demonstrate surprising good health. Solly has been bowling since he was 10; at age 96, he still enjoys the sport and carries a 123 average in the 80 and older league.

APPLYING THEORY AND RESEARCH TO LIFE

Dementia

DEMENTIA IS THE loss of thinking, memory, and reasoning skills that significantly impairs a person's ability to carry out daily tasks. Symptoms include the inability to remember information, asking the same questions over and over again, becoming lost or confused in familiar places, being unable to follow directions, or neglecting personal safety, hygiene, or nutrition (National Institute on Aging, 2009g). Two of the most common causes of dementia in older people are vascular dementia or repeated small strokes and Alzheimer's disease. With vascular dementia, the supply of blood to the brain is disrupted, resulting in the death of brain cells. The loss of function may be gradual or relatively sudden. The symptoms vary depending upon which area of the brain has been damaged. Memory, language, reasoning, or motor coordination can be disrupted. Supportive counseling, attention to diet, and skilled physical therapy to reestablish control of daily functions may restore much of the person's previous level of adaptive behavior provided that additional strokes do not occur.

Alzheimer's disease produces a more gradual loss of memory, reduced intellectual functioning, and an increase of mood disturbances—especially hostility and depression. The incidence of this disease increases with age, with fewer than 2% of people below the age of 60 affected by it, whereas an estimated 30% to 50% of those ages 85

to 100 experience some symptoms. The severity of the disease also increases with age (He, Sengupta, Velkoff, & DeBarros, 2005).

A person with Alzheimer's disease experiences gradual brain failure over a period of 7 to 10 years. Symptoms include severe problems in cognitive functioning, especially increased memory impairment and a rapid decline in the complexity of written and spoken language; problems with self-care; and behavioral problems, such as wandering, asking the same questions repeatedly, and becoming suddenly angry or stubborn (O'Leary, Haley, & Paul, 1993; Kemper, Thompson, & Marquis, 2001). Currently, there is no treatment that will reverse Alzheimer's disease. Treatments address specific symptoms—especially mood and memory problems—and attempt to slow its progress.

As the number of older adults with Alzheimer's disease and related disorders has grown, the plight of their caregivers has aroused increasing concern (Roth et al., 2001; Kantrowitz & Springen, 2007). Most Alzheimer's patients are cared for at home, often by their adult children and their spouse. The caregiving process is ongoing, with an accumulation of stressors and periodic transitions as the patient's condition changes. As the symptoms of the disease progress, caregivers have to restructure their personal, work, and family life. Caregivers often experience high levels of stress and depression as they attempt to cope with their responsibilities and assess the

effectiveness or ineffectiveness of their efforts. Over time, they are likely to experience physical symptoms of their own, associated with the physical and emotional strains of this role.

When people with dementia are cared for at home by their spouse, children, or other relatives, three spheres of functioning intersect: home life, intimate or close relationships, and custodial care. The latter, custodial care, often involves routinization, surveillance, and indignities as a result of lost capacities, such as needing help with toileting, bathing, or dressing. Observations and interviews with caregivers and care recipients who live together suggest that these features of custodial care disrupt intimate relationships and home life, making daily experiences more monotonous, restrictive, and constraining. As their symptoms worsen, care recipients gradually lose many of the functions that support their identities as homemakers, parents, or intimate partners (Askham, Briggs, Norman, & Redfern, 2007).

The care of an older person with some form of dementia is fraught with problems and frustrations, but it also provides some opportunities for satisfaction and feelings of encouragement (Pinquart & Sörensen, 2003). The uplifts and hassles frequently reported by caregivers give some insight into the typical day-to-day experience of caring for a person who is suffering from Alzheimer's disease (Kinney & Stephens, 1989; Donovan & Corcoran, 2010).

The uplifts include the following:

- Seeing care recipient calm
- Sharing a joke, laughing together with the care recipient
- Seeing care recipient responsive
- Care recipient showing affection
- Friends and family showing understanding about caregiving
- Care recipient recognizing familiar people, smiling or winking
- Care recipient being cooperative
- Leaving care recipients with others at home

Some of the hassles include:

- Care recipient being confused or not making sense
- Care recipient's forgetfulness, asking repetitive questions
- Care recipient's agitation, anger, or refusing help
- Care recipient's bowel or bladder accidents
- Seeing care recipient withdrawn or unresponsive
- Dressing and bathing care recipient, assisting with toileting
- Care recipient declining physically
- Care recipient not sleeping through the night

Two of the symptoms that are most difficult to manage are sleep disturbances and wandering. As cognitive functioning declines, the pattern of sleep deteriorates. A person with Alzheimer's disease sleeps for only short periods, napping on and off during the day and night. Often, the napping is accompanied by wakeful

periods at night, during which the person is confused, upset, and likely to wander. Caregivers must therefore be continuously alert, night and day. Their own sleep is disturbed as they try to remain alert to the person's whereabouts. When the disease reaches this level, family caregivers are most likely to find it necessary to institutionalize the family member. Alzheimer's disease is a major cause of hospitalization and nursing home placement among the elderly; an estimated 50% of nursing home residents have Alzheimer's disease or a related form of dementia (He, Sengupta, Velkoff, & DeBarros, 2005).

A woman who remembers her mother as independent, with strong views and a deep commitment to social justice, describes some of the ups and downs as she witnesses her mother's condition:

My mother also had strong views on quality of life issues for the elderly. We had often spoken about the importance of being able to die in a dignified way. She has a living will and opposes heroic measures to prolong life. I am convinced that Mom wouldn't want the quality of life she now has. She can't express herself, is unable to hold a knife or fork, has no control over her bodily functions and can't walk.

However, on a recent visit to her mother, who is living in a group home, she describes the following scene:

I worried ... that Mom wouldn't recognize me this time. But when I got there, she looked up at me and broke into a huge smile. She was truly excited to see

me. She laughed and as I hugged her, we both cried. Then she began to speak nonstop gibberish. Although she can't tell us otherwise, my mother appears to be happy.... I honestly don't know if she has any thoughts about quality of life. (Simon, 2002, p. B7)

Critical Thinking Questions

1. Imagine that you are responsible for the care of a loved one who has Alzheimer's disease. What steps could you take to help support their optimal functioning?
2. Why do you think attention to diet is a recuperative component for people with vascular dementia?
3. Do you think that psychosocial development continues for people who have Alzheimer's disease? What about the caregivers? How might the responsibilities of care contribute to or impede their psychosocial development?
4. Why might sleep disturbances and wandering be the symptoms that are most likely to lead to institutionalization for those with Alzheimer's disease?
5. Why might an adult child want to care for a parent who has Alzheimer's disease rather than place him or her in a nursing home or extended care facility?
6. If you were to take on the responsibilities for someone with dementia, how would you prepare for this role? How would you plan for the long-term nature of this responsibility and the continuing deterioration of your loved one?

75 to 84, and increases markedly for those 85 and older. However, even among this oldest group, fewer than half require help with walking, and fewer than 35% need help with other basic tasks of self-care (American Administration on Aging, 2010). Over the past decade, the proportion of elderly people reporting such needs has declined. Many factors may account for this improvement in daily functioning for recent cohorts of the very old, including improved design of interior space in senior housing, new devices that make it easier for older adults to compensate for physical limitations, and medications that help alleviate the symptoms of chronic illness (National Center for Health Statistics, 2004).

Developing a Psychohistorical Perspective

Objective 3. To develop the concept of an altered perspective on time and history that emerges among the long-lived.

Development in elderhood includes gains as well as losses. Through encounters with diverse experiences, decision making, parenting and other forms of tutoring or mentoring of younger generations, and efforts to formulate a personal

philosophy, adults reach new levels of conscious thought. Very old adults are more aware of alternatives; they can look deeply into both the past and the future, and can recognize that opposing forces can exist side by side (Riegel, 1973; Kunzmann & Baltes, 2005). The product of this integration of past, present, and future is the formation of a **psychohistorical perspective**. Through a process of creative coping, elders in each generation blend the salient events of their past histories with the demands of current reality. They are able to consider the contextual variations and uncertainties that are inherent in trying to make sense of life's challenges. Having lived a long time, and envisioning less time in the future, elders are more

likely to be more forgiving, less interested in material accumulation, and more focused on the emotional satisfactions of life (Allemand, 2008; Brandtstädter, Rothermund, Kranz, & Kühn, 2010).

Think about what it means to have lived for 75 or more years. Those adults who were 80 years old in 2010 lived through the Great Depression; World War II; the Korean war; the Vietnam war; the Gulf war; the Afghan and Iraqi wars; the assassination of President Kennedy; Watergate; the Clinton impeachment trials; the AIDS epidemic; the terrorist attacks of September 11, 2001; the floods that destroyed much of New Orleans; and the election of the first African