

## LET'S

## TALK

...FOR PEOPLE WITH SPECIAL COMMUNICATION NEEDS



## Normal Communication Changes in Older Adults

BY DEBRA BUSACCO

Communication is part of our everyday life. As we age there may be some **normal** changes in speech, language, swallowing, and hearing that may affect our ability to communicate effectively. It is important to understand which changes are part of the normal aging process and which communication changes may warrant further evaluation by an ASHA-certified speech-language pathologist or audiologist.

The number of older adults in the United States is growing rapidly. At present, they constitute approximately 13% of the U.S. population. By 2020, this figure will rise to 16.9%. The fastest-growing segment of the aging population are individuals over 85 years of age (U.S. Department of Commerce, 1992. *Statistical abstract of the United States*. Washington, DC).

Older adults may experience multiple medical conditions. Many also have communication disorders related to various conditions. At least 8 million older people have a speech, language, and/or hearing disorder that affects daily communication abilities. Some may experience more than one communication disorder. For example, an older person who has suffered a stroke with residual language problems may also have a hearing loss. As a result of the aging of America, the number of older adults with a communication disorder will most likely increase significantly over the next several decades.

The extent to which normal aging changes affect communication functioning varies from person to person. In some older people the aging process may have a significant impact on communication skills whereas in others there may be little or no effect. Professionals and family

members must be aware of communication changes that are part of the normal aging process and changes that may indicate a pathological condition.

### Normal Aging Changes in Hearing

Almost every older person will experience normal aging changes in the auditory system. For some people, age-related changes in hearing may result in a significant hearing loss. Hearing loss is the fourth most chronic health condition among individuals 65 years of age and older. Hearing loss due to the aging process, or *presbycusis*, is the result of many physiological changes throughout the ear. Common age-related changes in the outer ear include excessive hair growth, loss of cartilage in the pinna, and a thickening of the tympanic membrane or eardrum. Many of these changes do not cause hearing loss. One medical condition of the outer ear prevalent in older people that does cause temporary hearing loss is impacted wax. When the wax is removed, hearing improves.

Age-related changes also occur in the middle ear. The three tiny bones called *ossicles* that are located there stiffen with age, which results in less effective transmission of sound from the outer ear through the middle ear to the inner ear. The *Eustachian tube*, which connects the middle ear with the nasal passage and throat, loses elasticity with aging, which may cause it to be open at all times. Older adults with chronically open Eustachian tubes report feeling as though they are "talking in a barrel." A consultation with an Ear, Nose, and Throat physician (ENT) is recommended if this condition is bothersome.

The inner ear consists of two organs: the *cochlea*, which is responsible for hearing,

and the *vestibular system*, which maintains balance. Age-related changes in these organs can affect both hearing and balance. Some changes that occur in the hearing mechanism because of aging include degeneration of the hair cells, decrease in the blood supply to the cochlea, and decrease in the number of nerve fibers of the auditory nerve and the central auditory pathways. Age-related changes in the inner ear typically result in a permanent high frequency sensorineural hearing loss. Most individuals with *presbycusis* report, "I can hear but I cannot understand," especially in the presence of background noise, in group situations, or when listening from a distance. Although there is no medical treatment for *presbycusis*, there are many rehabilitative techniques available.

The normal aging process also affects the balance system. Some changes include loss of nerve fibers, atrophy of hair cells, and insufficient blood supply. Many older adults experience dizziness or imbalance, especially with a change in body position. If a balance problem is suspected, a medical examination is warranted. Balance problems in older people can be related to medications, neurological conditions, or systemic diseases. Dysequilibrium can result in gait disturbances and falls that can have serious consequences.

Biological aging of the auditory system is most likely related to a combination of factors including genetics, diet, exposure to noise, medications, viruses, infections, and systemic illnesses. Normal age-related changes are inevitable, but preventive measures can protect hearing sensitivity. Whenever there is concern about an individual's hearing status, a referral should be made to an ASHA-certified audiologist for an audiological evaluation to determine the type and degree of hearing loss.

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## Normal Aging Changes in Speech, Language, and Swallowing

The aging process also causes numerous changes in speech, language, and swallowing. One of the most common problems is tooth loss and compromised dentition. Aging also causes tissue, glandular, and muscular changes in the jaw, tongue, salivary glands, and throat. There is a decrease in the number of salivary glands and reduced taste sensation (Sonies, B. 1987. Oral motor problems. In H. G. Mueller & V. C. Geoffrey, Eds., *Communication disorders in aging*, pp. 185–213. Washington, DC: Gallaudet University). These normal aging changes may cause older adults to exert greater effort in swallowing, and they may require more time to swallow foods. Age-related changes in dental status and swallowing can have nutritional consequences because older adults will select alternative foods that are easier to chew and swallow. Some elderly adults may also reduce their food intake, which can result in weight loss and malnutrition. If an older person experiences significant swallowing difficulties, a medical evaluation may be warranted to determine if a pathological condition is present.

The vocal mechanism is affected by age. Weakness, reduced intensity, hoarseness, trembling, and alterations in vocal pitch often characterize the voice of older adults. Changes in the vocal mechanism are related to the aging of the larynx and supporting structures. Some normal age-related changes that are common in elderly adults include an increase in calcium and hardening of the cartilage in the larynx. There may also be a decrease in blood supply to the vocal mechanism, degeneration or edema of the vocal folds, and a decrease in respiration that can affect vocal production. As both genders age there is a change in vocal pitch. The vocal pitch of males increases, whereas the pitch of females

decreases. There is also an increase in jittering of the voice with age because of a decrease in neuromuscular control of the muscles that support the larynx (Caruso, A., & Mueller, P. 1997. Age-related changes in speech, voice, and swallowing. In B. B. Shadden & M. A. Tone, Eds., *Aging and communication*, pp. 117–134. TX: Pro-Ed). Often, these subtle age-related changes in vocal quality are only noticeable to a professional and have minimal impact on daily communication functioning.

There is a great deal of variation in the language skills of older adults. The differences are most likely due to the individual's life history, language competence, communication environment, and cognitive abilities. Some age-related changes in language are due to normal cognitive declines that occur as one grows older, including a decrease in attention, decline in memory, and slower speed of processing information (see Ryan, E. B. Normal aging and language. In R. Lubinski, Ed., *Dementia and communication*, pp. 84–92, San Diego, CA: Singular Publishing Group). A large percentage of older adults at one time or another will experience problems with word retrieval. They may have difficulty remembering names and may have problems retrieving well-known words. Often, this can be a frustrating communication experience. If an older adult is having increased

difficulty finding words or is having problems selecting the correct word for a familiar object, a referral should be made to an ASHA-certified speech-language pathologist for an evaluation. The clinician will be able to determine if the word-finding difficulties are typical of those found in healthy older adults or if a cognitive problem such as dementia is present.

In general, older adults tend to use simpler sentence structure than younger adults. They tend to use more fragmented sentences in conversation, especially as age increases. Aging seems to have little or no effect on the manner in which older adults engage in conversation. For the most part, older adults tend to be adept at conversational turn taking, maintaining the topic, and modifying the content of their message depending on the listener's needs. The majority of older adults maintain basic conversational skills well into the 8th or 9th decade of life unless a pathological condition is present.

Older adults should be encouraged to communicate with family and friends on a regular basis. Engaging in communication will enhance quality of life and keep them connected to everyday events. **ii**

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*Debra Busacco is ASHA's director of Academic Affairs. Contact her via email: [dbusacco@asha.org](mailto:dbusacco@asha.org)*

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