

DEALING WITH DIZZINESS

SPONSORED BY THE BALANCE CENTER OF MARYLAND AND THE METROPOLITAN NEUROEAR GROUP

July 2011, VOLUME 1, ISSUE 4

DIZZINESS & IMBALANCE IN THE GERIATRIC POPULATION

Causes and consequences

It is a common misconception that dizziness is normal in older adults. While dizziness is a symptom of many disorders and a side effect of hundreds of medications, the geriatric individual should not normally experience dizziness; if not evaluated and treated properly, it can cause a plethora of negative events.

Research indicates that dizziness is one of the most common complaints of individuals over 75 years of age who seek medical care from family internists. According to a



1101 Wootton Parkway, Suite 900

Rockville, MD 20852

P: 301-493-9409

F: 301-493-9429

www.balancemaryland.com

Research indicates that dizziness is one of the most common complaints of individuals over 75 years of age who seek medical care from family internists. According to a

study by Argawal Y et al in 2009, individuals who reported dizziness had a twelve-fold increase in the chance of reporting a fall. A fall can be defined as a sudden change in body position that usually results in contact with the floor. Studies indicate that over 90% of hip fractures in the geriatric population result from a fall, and only 50% of older adults are able to continue to live independently after sustaining injuries caused by a fall. Once an individual has experienced a fall, he/she may also experience pain, loss of confidence, decreased or restricted activity level, functional decline, and may potentially become institutionalized in a nursing home or similar facility.

WHO'S AT RISK?

Factors contributing to increased fall risk

Studies indicate that some factors specifically contribute to a geriatric individual's risk of falling. Some of these risk factors include: difficulty with ambulation and overall functional mobility, taking four or more medications, unsafe footwear, poor vision, blood pressure changes, and environmental risks, such as throw rugs and clutter in the home. Fortunately, if these issues are addressed, an individual's risk for falls can decrease.

THE INNER EAR OF THE OLDER ADULT

What changes?

Similar to other organ systems in the human body, the peripheral vestibular system undergoes degenerative changes with aging. During the aging process, the demineralization and fragmentation of the otoconia in the utricle and saccule result in a decreased response to gravity and linear acceleration, and an increased likelihood to migrate into the posterior semicircular canal, causing BPPV. Other changes that occur in the inner ear of the older adult include a reduction in the number of cells in Scarpa's ganglion (vestibular nucleus) and a reduction in the number of vestibular nerve fibers. These structural and physiologic changes are often referred to as presbystasis and ultimately cause varying degrees of functional impairment in this population.

Vestibular Support Group and Lecture Series

The last Monday of each month at 7:30 pm

Please contact BCOM@earsite.com or 301-493-9409 for details

HOW CAN PHYSICAL THERAPY HELP? Treatment of disuse disequilibrium in the aging adult

Imbalance and a fear of falling can contribute to disuse disequilibrium, a non-vestibular cause of unsteadiness and loss of balance. As the body ages, physiologic changes occur, including loss of muscle bulk, loss of joint range of motion, and increased reaction time. These factors, combined with the presence of other medical conditions, including dizziness, can cause an individual to decrease his/her activity level, resulting in decreased overall mobility, fear of falling, and disuse disequilibrium. Fortunately, a physical therapy program including strength, balance, gait, and endurance training, along with safety and fall prevention education, are highly effective in combating disuse disequilibrium. Additionally, many studies indicate that Tai Chi may be beneficial in improving balance and strength in community-dwelling older adults.

In the next issue of *Dealing with Dizziness*.
Acoustic Neuroma and the Role of Vestibular Rehabilitation



Balance Center of Maryland

@DizzyNoMore



1101 Wootton Parkway, Suite 900
Rockville, MD 20852-1059