Vision and Falls

Recent literature on falls in older people indicates an association between visual function and falls. While there are many factors associated with falls in older people, good vision is essential for maintaining postural stability, effective mobility within the environment and avoiding falls and other related injuries.

Impairment in visual functions, such as visual acuity, contrast sensitivity, visual fields and depth perception, are associated with an increased risk of falls as is visual impairment due to eye disease. Optometrists have a major role to play in optimizing the visual function in older people to prevent falls.

Vision is important for maintaining posture and for orientation in space. It is one of the four sensory mechanisms that detect balance disruptions, in addition to the vestibular function, tactile sensation in the feet and proprioception (perception of the position of a joint) in the lower limbs and neck.

But the ability to use static and dynamic visual information changes systematically in older adults, which impairs their balance and posture and increases risk of falls.

Age-related vision diseases can increase the risk of falling. Cataracts and glaucoma alter older people's depth perception, visual acuity, peripheral vision and susceptibility to glare. These limitations hinder the ability to safely negotiate the environment, whether it be at home or in a shopping mall.

Other Visual deficits include deficits in acuity, color and depth perception and sensitivity to glare.

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Prevention Tips

- Have regular checkups by an ophthalmologist to discern the extent of age-related eye diseases such as cataracts and glaucoma.
- Participate in activities that assist with strengthening ocular muscles
- Regular participation in approved exercise programs
- Falls can be reduced using cataract surgery as a visual intervention.
- Use color and contrast to define balance-aiding objects in the home (e.g., grab bars and handrails).
- Add contrasting color strips to first and last steps to identify change of level.
- Clean eyeglasses often to improve visibility.
- Fix cracks in pavements and sidewalks
- Adjust lighting to reduce glare
- Repair uneven surfaces
- Keep walkways free of clutter