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BOSTON UNIVERSITY
SESQUICENTENNIALBoston University
School of Medicine

Office of Media Relations
Betty Russell, Director
720 Harrison Avenue
Suite 909
Boston, MA 02118-2393
617 638-8491

NEWS

For Immediate Release
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Contact: Sarah Downey
or Betty Russell
(617) 638-8491

VISUAL IMPAIRMENT INCREASES RISK OF HIP FRACTURE IN ELDERLY

Boston, Mass.--Impaired vision is a significant risk factor for hip fractures among the elderly, and its treatment may be an important means of injury prevention, according to a study in the Journal of the American Geriatrics Society. In the study conducted by researchers at Boston University School of Medicine (BUSM), 18 percent of hip fractures suffered by women were potentially related to poor vision. This is the first study to establish a link between impaired vision and hip fractures.

Hip fractures are an alarming epidemic among the elderly--one that is increasing as people live longer and as the elderly population grows, according to David Felson, M.D., principal investigator of the study and an associate professor of medicine at BUSM. "A hip fracture can be a devastating event in an elderly person's life because the injury often requires prolonged hospitalization and immobilization," said Felson. "Hip fractures are a source of great disability and can also result in death," he added.

Researchers obtained data on participants' vision and the presence of eye disease from the 1973-75 Framingham Eye Study. Subjects of the study were then monitored for the next ten years to determine whether their eyesight contributed to injuries suffered as a result of falls. Of the 2,633 participants, 110 sustained hip fractures within that period.

Felson and colleagues found that impaired vision in only one eye increases the risk of fracture as much as a similar degree of impairment in both eyes. "People tend to gauge spatial orientation by visual input from both eyes. If one eye is impaired, spatial orientation is also impaired," he said.

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The study suggests a strong link between advanced age--75 years and older--and the risk of hip fracture due to repeated falls. It also indicates that women may be at greater risk for fracture because of the difference in bone mass between genders.

The study has important implications for the prevention of hip fractures. "By recognizing that impaired vision is a factor in hip fractures, we can take preventive measures so that the elderly are less vulnerable to injury," said Felson. He recommends frequent eye exams, prompt treatment of eye problems and environmental accommodations for visual loss, such as eliminating geometrically patterned rugs that may cause spatial optical illusions, or removing obstacles below eye level.

The Framingham Eye Study was undertaken in conjunction with the Framingham Heart Study, the world's largest and longest running study of cardiovascular disease. Data from the Heart Study--which recently celebrated its 40th anniversary and 20-year involvement with BUSM--is being used to explore the causes of several chronic diseases, including cancer, stroke, Alzheimer's disease, eye disease and arthritis.