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Visual Impairment Increases Risk Of Hip Fracture In Elderly

Impaired vision is a significant risk factor for hip fractures among the elderly, according to a study in the *Journal of the American Geriatrics Society*. Researchers at Boston University School of Medicine (BUSM) who conducted the study recommend treatment of impaired vision as an important means of injury prevention. This is the first study to establish a link between vision and hip fractures.

Hip fractures are an alarming epidemic among the elderly and can cause severe disability or death. "A hip fracture can be a devastating event in an elderly person's life," said David Felson, M.D., principal investigator of the study and an associate professor of medicine at BUSM.

Results of the study suggest 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 risk factor, 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.

Data on participants' vision and the presence of eye disease was obtained from the 1973-75 Framingham Eye Study, which was undertaken in conjunction with the Framingham Heart Study.

New Drug Pump Eases Painful Muscle Spasms

The University Hospital (UH) is the only center in New England testing a new implantable, programmable drug pump designed to relieve the disabling muscle spasms associated with spinal-cord injury and multiple sclerosis, without the side effects of traditional treatment.

Most spinal-cord injured or multiple-sclerosis patients experience painful muscle spasms—some as often as 20 times an hour. When severe, the spasms can propel a patient out of a wheelchair or bed.

Traditional treatment includes oral medication, which cause such side effects as mental confusion, or surgery, which involves cutting nerve roots to disrupt nerve impulses.

Because the pump delivers the muscle relaxant baclofen directly to spinal fluid at a pace custom-designed for the patient, it does not have the same side effects as oral medication and avoids the risks of spinal surgery, according to Joe Ordia, M.D., principal investigator for the clinical trials and a neurosurgeon at UH.

The three-inch disc-shaped pump is placed under the skin near the abdomen along with a catheter that is inserted into the spine. The pump is programmed from a desk-top computer to dispense the drug at specific intervals and dosage levels corresponding to the times when the patient is likely to have spasms. "For instance, some patients have more spasms in the morning. For them, we would program the pump to give a little more medication during the early hours," says Ordia. The pump is refilled once a month.

Patients who have already received the pump are doing well, according to Ordia. "It has enhanced their quality of life and given them a greater sense of independence," he says.
Why Kids Don't Wear Bicycle Helmets

Even though most children describe other children who wear bicycle helmets as "smart," they don't wear helmets themselves because they're afraid their friends will make fun of them. Researchers at Boston University School of Public Health (BUSPH) and Boston City Hospital conducted focus groups with elementary-school children in an effort to develop a strategy to promote helmet use in children. Their findings were recently published in the American Journal of Diseases of Children.

Researchers found that most children did not own or use helmets and most did not realize that bicycle accidents could result in death. Children had conflicting opinions about helmet use. While they thought those who wore helmets looked "smart," "safe" and "good," they said if they wore helmets themselves they would feel "stupid," "embarrassed" and "not cool." Some students said wearing helmets for racing was acceptable, while wearing them for everyday riding was not.

When asked whether there should be a law requiring helmet use while riding a bicycle, students' comments, such as "Nobody could laugh at you because they'd be wearing one too," suggested compliance with such a law.

"One of the most significant findings of the study was that children did not have negative attitudes towards other children who wore helmets or to the idea of mandatory helmet use," says Jonathan Howland, Ph.D., an assistant professor of public health at BUSPH. "We know peer pressure is important, but if intervention programs are aimed at assuring children that helmet use is acceptable, then we might be able to reduce their resistance to helmet use."

Temper Tantrums—Sound Advice For Mom And Dad

Parents can minimize their children's temper tantrums by setting fewer limits but remaining firm when they set them. While tantrums decline in prevalence as children age, not all children grow out of them on a predictable schedule. In the August issue of Contemporary Pediatrics, physicians from Boston University School of Medicine (BUSM) and Boston City Hospital outline strategies for dealing with tantrums.

Normal tantrums—common during the toddler and preschool years—involve behaviors ranging from persistent angry crying to physical thrashing. Tantrums occur when children's emotions, such as anger or frustration, exceed their ability to manage them. They often take place when children's drives for mastery and autonomy are thwarted by parents or their own limitations.

Parents can help their children get through the tantrum years by using the following strategies: picking their battles carefully and not giving in once they take a stand; offering children frequent choices to give them some control over their lives; distracting the child to a more acceptable activity when frustration begins to mount; minimizing the need for "no's" by childproofing the house; ignoring tantrums by a preschooler but staying within his or her sight; realizing that some preschoolers may need to be held in order to regain control; and establishing rules with older children to take a "Time Out" or go to their rooms until they calm down.

Spanking or threatening children is discouraged. "These methods may halt the tantrums, but there is a developmental cost to the child," says Robert Needlman, M.D., a fellow in the Division of Developmental and Behavioral Pediatrics at BUSM. "Kids may be scared enough to stop tantrums, but their self-esteem and growing sense of their ability to make decisions suffers."

Breathe Easier This Summer

Summer is a time to get outside and enjoy the sunny, warm weather. But for the 750,000 Bay Staters who suffer from asthma and other pulmonary ailments, the long hot days of summer are days to stay indoors. "For these people, leaving the safety of a smog-free environment becomes a very uncomfortable and possibly life-threatening situation," says Bartolome Celli, M.D., director of the Pulmonary Physiology Laboratory and the Respiratory Care Center at the University Hospital (UH).

Unhealthy air or smog is made up of an above-normal concentration of substances, including ozone, carbon monoxide and a host of other toxins that are released daily into the atmosphere by cars, industrial plants, chemical manufacturers and incinerators.

Air temperature is the highest and humidity is the heaviest from July to September. These months also tend to be the busiest for car travel. Add it all together and you've got unhealthy air. "Under normal circumstances noxious gases and fumes rise and dissipate into the atmosphere. During summer months the air doesn't rise as quickly, and the smog remains in the atmosphere for us to breathe," says Celli.

Even people who don't suffer from pulmonary problems may experience the ill-effects of unhealthy air. Irritation of the sinuses, a scratchy throat and general malaise can result from breathing unhealthy air.

When air quality is bad, Celli recommends that the elderly and those who suffer from respiratory problems refrain from physical exertion and remain indoors. Others who want to exercise should do so early in the morning or in the early evening when the air quality is at its best.