

## **Hip Protectors Won't Prevent Fractures in Elderly**

July 24 (Health Day News) -- The use of energy-absorbing hip protector pads won't prevent hip fractures, new research suggests.

"We found that there was no benefit to the hip protector," said study author Dr. Douglas Kiel, director of medical research at the Institute for Aging Research at Hebrew SeniorLife and an associate professor of medicine at Harvard Medical School in Boston. The finding is reported in the June 25 issue of the *Journal of the American Medical Association*.

"At this point, I would say that most of the growing number of studies don't support the routine use of hip protectors in nursing homes," said Kiel. "But I don't think the future of hip protectors is totally negative. Maybe there are better pads out there or will be in the future."

Every year, more than 340,000 Americans break a hip. Ninety percent of those injuries are associated with a fall, according to the study. Residents of nursing homes experience some of the highest rates of falls, with up to 50 percent falling each year.

Previous studies of hip protectors have had conflicting results, Kiel said. There are two main types of hip protectors -- ones that divert the energy of a fall away from the hip, and ones that absorb the impact of a fall, he explained.

In the current study, the researchers chose to test energy-absorbing hip protectors. Unlike previous studies which have compared one nursing home population to another control group, each volunteer served as their own control subject by only wearing a protector on one hip.

The study included more than 1,000 residents of 37 nursing homes. The average age was 85 years old, and 79 percent of the study participants were women. The average participation time was nearly eight months.

Each volunteer wore specially designed undergarments that included a one-sided hip protector. The overall adherence rate was about 74 percent, according to the study.

The study found no statistically significant difference in the incidence rate of hip fracture between protected hips -- fracture rate of 3.1 percent -- versus unprotected hips -- 2.5 percent. In those with a higher adherence rate -- more

than 80 percent -- there were no significant differences either. The hip fracture rates were 5.3 percent in protected hips versus 3.5 percent in unprotected hips.

"Just padding the hip is not going to protect against fracture," said Dr. Gerard Varlotta, director of sports rehabilitation at New York University Medical Center's Rusk Institute of Rehabilitation Medicine/Hospital for Joint Disease.

Varlotta said that's because many fractures don't even occur as a result of impact but from the unnatural rotation of the hip in a fall. "Fractures often occur prior to impact," he said.

Varlotta and his colleagues are working on a hip protector that would keep the hip in proper alignment.

In an accompanying editorial, Finnish experts pointed out that because the hip-protecting device was one-sided, it's possible that it might have affected the way people stood or walked, possibly increasing the risk of falls. Kiel said the device weighed only two ounces, so he doubts it had much of an effect on gait or in causing people to fall more on the protected hip.

Kiel said there are more than a dozen types of hip protectors on the market, ranging from about \$30 to as high as \$175. But, he said, people need to know that most of these devices haven't been tested and haven't been proven effective. If they'd like to try them, he suggested asking your doctor which type has had positive clinical trial results.

Additionally, he said that it's important to try to reduce the risk of falls in the first place. Leg-strengthening exercises can help, as can limiting the use of sedating medications. If a medication makes you or someone you're caring for dizzy, ask the doctor if another medication that doesn't cause dizziness can be substituted. Additionally, be sure to remove throw rugs and any obstacles from the walking path and that the lighting is adequate, advised Varlotta.

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