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## Even Minor Head Injuries Can Have Serious Consequences

**Brain Injuries Are the Leading Cause of Death for N.H. Residents Age One to 24 Years**

By [Sharon Keeler](#)  
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DURHAM, N.H. -- University of New Hampshire graduate students studying the effects of traumatic brain injury are alarmed by the number of children not wearing helmets when riding bicycles, scooters, skateboards or inline skates. Brain injuries are the leading cause of death for New Hampshire residents aged one to 24 years, and children and adolescents are most affected by these injuries.

In addition, a recent survey of New Hampshire adults by Linda Robinson, UNH professor of nursing, found that 11 percent of the population had incurred a traumatic brain injury. The percentage is significantly higher than the national prevalence of 5 percent.

"Children may suffer serious head injuries in minor accidents if they are not wearing helmets," says Christine Guarino, UNH professor of communication sciences and disorders. She teaches a graduate seminar in cognitive communicative impairments in traumatic brain injury.

"Even minor head injury, like a concussion, can have serious implications for learning and behavior," she says. "Depression, attention deficits, memory loss, behavioral changes, language learning disability, motor disturbances and personality changes can result from mild injuries to the head. Some problems may not show up until years after the injury when increasing demands are placed on emotions, thinking and behavior."

People who have had brain injuries, she continues, are also at greater risk for having repeat injuries, for developing substance abuse problems, and for being victims of violence.

Robinson's study supports this, reporting that individuals with a history of mild brain injury were three times more likely to have been victims of physical and/or sexual violence in the 12 months prior to her survey.

Many brain injuries are preventable and, in states with all-rider helmet laws, fewer lives are lost and fewer brain injuries are reported. The New England Journal of Medicine recently reported that helmet users had 88 percent fewer brain injuries.

Currently, 15 states have age-specific helmet laws and 10 others have bills pending. New Hampshire has a motorcycle helmet law that applies to riders and passengers who are 18 years of age and younger. "Helmets are a small price to pay for prevention of a high-cost head injury," says Brooke Murphy, a UNH graduate student.

UNH graduate students are also worried that scooter riding could increase the number of brain injuries in the state. "People normally do not consider the scooter to be a dangerous vehicle," says Jessica Bergeron, another graduate student in Guarino's seminar. "It seems like a harmless toy, but the combination of speed and doing tricks creates a situation ripe for head injury."

Public awareness, according to UNH student Stacey Stabile, is the first step in preventing future injuries. "The manufacturers and media, as well as parents and riders, need to assume responsibility for public awareness," she says. "This could be accomplished by depicting more helmeted scooter riders in advertisements and articles."

Awareness of proper helmet use is also an important safety factor. Helmets break down over time and show be replaced following impact. They also should be properly fitted.

*Editor's Note:*

*This article was written by graduate students studying cognitive communicative impairment as part of UNH's Master of Science in Communication Sciences and Disorders program. These students are committed to involvement in primary prevention. Students not quoted in the article, but contributing include: Rebecca Anderson, Matthew Bergeron, Christine Berube, Adam Bowker, Sonya Brintnall, Ehrin Clegg, Caryn Colocousis, Stephanie Hillsgrove, Sheila O'Neill, Christie Oberg, Mandy Parent, Marika Robertson, Sharon Steinhoff, Kristen Vitale, and Sue Lanzara Wright. As a follow-up to this article, these students are interested in taking their helmet message into the schools and homes of New Hampshire. For more information, contact UNH Professor Christine Guarino at 603-862-4591, or Susan Lanzara Wright at 603-664-7816.*

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