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BUNK BED-RELATED INJURIES NOT EXCLUSIVE TO YOUNG CHILDREN

(COLUMBUS, Ohio) – Bunk bed-related injuries are not an issue of concern solely for parents of young children according to a study conducted by investigators at the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital. The study, published in the June issue of *Pediatrics*, found although three-quarters of the children who sustain bunk bed-related injuries are younger than 10 years of age, there is a surprising spike in injuries among individuals between the ages of 18 and 21 years.

The study is the first of its kind to use national data to comprehensively examine patterns and trends of bunk bed-related injuries among children and young adults (up to 21 years of age). There were an estimated 572,580 bunk bed-related injuries during the 16-year study period, resulting in an average of nearly 36,000 cases annually.

"The high rates of injury found in our study suggest the need for increased prevention efforts to lower the risk of bunk bed-related injury, especially among young children and young adults," said study co-author Gary Smith, MD, DrPH, director of the Center for Injury Research and Policy at Nationwide Children's Hospital, and an associate professor of Pediatrics at The Ohio State University College of Medicine.

Bunk bed-related injuries occur most frequently among males, and half of the cases analyzed involved children younger than 6 years of age. Bunk bed injuries most commonly result from falls. The most common bunk bed-related injuries include lacerations, contusions/abrasions and fractures. While fractures were the third most common injury, patients with fractures were almost six times more likely to require hospital admission, transfer to another hospital, or to be held for observation.

The body regions most frequently injured include the head/neck and face. Injuries to this area of the body are especially common among small children who, due to a higher center of gravity, tend to fall head first. Children less than 3 years of age were 40 percent more likely to sustain head injuries than older children.

The study also found 18- to 21-year-olds experienced twice as many injuries as adolescents in the 14- to17-year-old age group. The reason for this finding is unknown, however, individuals in this age group may use bunk beds more frequently due to increased residence in institutional settings, such as college dormitories and the military. Older children were also found to be significantly more likely to be injured due to bed malfunction than younger children, perhaps due to their larger size and increased weight.

"Everyone wants to feel safe and secure while resting or sleeping, yet bunk beds are a common source of injury among children and adolescents," said study co-author Lara McKenzie, PhD, MA, principal investigator in the Center for Injury Research and Policy at Nationwide Children's, and an assistant professor at The Ohio State University College of Medicine. "Our study found that bunk bed-related injuries can be severe and require hospital admission. In addition to children less than 6 years of age, young adults have a significantly increased risk of injury from bunk beds in schools, recreational sports facilities and public properties."

Recommended strategies for prevention of bunk bed-related injuries include making sure guardrails are used on both sides of the upper bunk, with guardrail gaps being 3.5 inches or less to prevent entrapment and strangulation; ensuring the mattress foundation is secure and the proper size mattress is used; not permitting children younger than

6 years of age to sleep in the upper bunk; discouraging children from playing on bunk beds; using night lights to help children see the ladder at night; removing hazardous objects from around the bed; and not placing the bunk bed too close to ceiling fans or other ceiling fixtures. Bunk beds should not be changed so as to negate safety standards.

Data for the study were obtained from the National Electronic Injury Surveillance System of the United States Consumer Product Safety Commission. The analysis included cases of non-fatal bunk bed-related injuries treated in emergency departments across the U.S. from 1990 through 2005.

The **Center for Injury Research and Policy** (CIRP) **of The Research Institute at Nationwide Children's Hospital** works at the local to international levels to reduce death and disability due to injuries through research, education, advocacy and advances in clinical care. CIRP aims to improve the scientific understanding of the epidemiology, prevention, acute treatment, rehabilitation and biomechanics of injuries. CIRP educates health and other professionals, policy makers and the public regarding the importance of injuries, injury research and injury prevention. CIRP provides leadership in the development, implementation and scientific evaluation of public policy regarding control of injuries. Learn more about CIRP at http://www.injurycenter.org.

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