



Risk Management *Tips*

Stopping Pediatric Forearm Fractures Before They Happen

According to a study completed by the Center for Clinical and Community Research at Children's National Medical Center in Washington, D.C., the incidence of pediatric forearm fractures is increasing. The study included isolated forearm fractures of children ages 0 years to 17 years treated in the Children's National Medical Center.

Key points of the study found the majority of patients were male (64 percent) and African American (80 percent). The mean age (\pm standard deviation) was 8.4 years (\pm 3.9). Weight-for-age percentile was \geq 95 pounds in 24.1 percent of cases. Most forearm fractures occurred during the spring season. The most common mechanism of injury was fall-related (83 percent), whereas direct trauma caused 10 percent of fractures. Falls from monkey bars were the specific mechanism of injury in 17 percent of all cases. The majority of forearm fractures (58 percent) resulted from minor trauma.

The study determined that falls from monkey bars and minor trauma were implicated in the majority of childhood forearm fractures. Further research is needed to evaluate other factors, including obesity and bone health, which may contribute to forearm fracture risk associated with minor trauma.



In 2010, claims reported to Markel for falls from elevated playground equipment in a child care setting revealed that 64 percent of the claims involved a broken arm, and 36 percent of those claims included a fall from monkey bars or arch climbers. Other equipment in the climber category included dome climbers, flexible climbers (usually chain or net), parallel bars, sliding poles, spiral climbers, track rides, and overhead ladders and rings.

Strategies to prevent this type of accident from occurring should include reinforcing the need for close-proximity supervision of climbers and ensuring the climber is age-appropriate for the user. Staff should be instructed to pay close attention and be prepared to respond to any child who may appear in distress. As children traverse across a climber, control access to one person at a time. While the concept behind play equipment is to allow children to grow through creative play, attempts to hang upside down on climbing equipment should be discouraged.

The U.S. Consumer Product Safety Commission's *Handbook for Playground Safety* recommends that playgrounds designed for children under 4 years of age should avoid arch climbers, flexible climbers, horizontal ladders, parallel bars, and other upper body components. Consult the climber manufacturer's guidelines for age-appropriateness and other safe usage recommendations.

If you have a safety or risk management question or a suggestion for a topic, please contact Markel's Risk Management Department at safety1st@markelcorp.com.