



U.S. ARMY COMBAT READINESS CENTER

4905 Ruf Ave. Fort Rucker, AL 36362-5363
Comm. (334) 255-3770 Fax (334) 255-2609
<https://safety.army.mil>

READY ...OR NOT?

Diver down

Chris Frazier
U.S. Army Combat Readiness Center
Fort Rucker, Alabama

Warmer weather is on the horizon for much of the United States, signaling a return to outdoor activities for millions of Americans. Unfortunately, the spring and summer seasons also bring a spike in water-related injuries, leading physicians to remind swimmers to play it safe when diving into pools, lakes and oceans.

The National Spinal Cord Injury Statistical Center at the University of Alabama at Birmingham estimates 11,000 spinal cord injuries occur each year in the United States. These injuries occur when the spinal cord, which runs from the base of the brain to the waist, is damaged or severed by trauma.

According to one study, as many as 11 percent of all injuries to the spinal cord are the result of diving accidents, said Robert Bohinski, MD, PhD, a neurosurgeon with the Mayfield Clinic and assistant professor of neurosurgery at the University of Cincinnati College of Medicine.

“A tremendous amount of force is transmitted to the cervical spine when the entire weight of one's body is propelled against an immobile object like the bottom of a pool or a rock,” Bohinski said. “People diving from decks and boards can hit the water at 15 feet per second. The cervical spine will buckle under the force and either fracture or dislocate.”

Statistics from the NSCISC reveal males are most likely to be a victim of a spinal cord injury, accounting for more than 81 percent of incidents. Diving is the fourth-leading cause of spinal cord injuries among these males.

“This is an all too common injury during the summer months,” Bohinski said. “Most of the reported injuries are severe, resulting in complete paralysis, and in some cases are even fatal.”

While diving-related spinal cord injuries are traumatic, they are preventable. Because most of these injuries occur in water 3 feet deep or less, Bohinski recommends swimmers always enter feet first.

“Diving headfirst into shallow water and striking one's head on either an object or the bottom of the pool is known to cause cervical spine fractures that often are associated with spinal cord injury,” Bohinski said. “Never dive into murky or unknown bodies of water. Swim around first without diving to become familiar with the geography of the water.”

Bohinski offers these additional safety tips to help swimmers avoid a spinal cord injury:

- Never dive when drunk or intoxicated

- Avoid diving at parties or large gatherings when a lot of other people are in the way and things may be unpredictable
- Do not dive just to show off or horse around
- Post "No Diving" signs prominently at your pool in areas that are not deemed safe for diving
- Never attempt to dive across the short length of a typical pool
- Never dive into an above-ground pool
- Avoid diving at all into irregularly shaped pools
- Frequently talk to your children about the dangers of diving into a pool or unfamiliar bodies of water
- Do not dive at night or in poorly lit conditions
- Do not dive from boats

For more information on off-duty safety, visit <https://safety.army.mil>.