

THINKFIRST CANADA'S DIVING INJURY PREVENTION TIPS

Whether from a diving board, the side of a swimming pool, or a rock at the edge of a lake, diving involves head-first entry into the water and therefore the risk of head impact and broken necks. Here are ThinkFirst Canada's top tips for reducing your risk of sustaining a catastrophic injury while diving. This information is taken from Chapter 11 "Diving" in the ThinkFirst book entitled *Catastrophic Injuries in Sports and Recreation: Causes and Prevention – A Canadian Study* edited by Charles H. Tator and published by the University of Toronto Press in 2008.

TOP TIPS:

Tips for Divers

- Learn to dive safely – watch a segment of DiveSmart/Sudden Impact on thinkfirst.ca for a demonstration of safe diving techniques. Obtain the entire resource from the Canadian Red Cross at redcross.ca
- Avoid the use of alcohol and drugs in aquatic environments.
- Dive only in water that is deep enough to support the size, weight and skill level of the diver. As a rule, the depth of the water should be twice the height of the diver.
- Never dive into the shallow end of the pool.
- The hazards of diving in unknown waters are extreme. Never dive into unfamiliar bodies of water. Always check for submerged objects like rocks, tree trunks, and other debris *before diving*.
- Know the water depth before diving. Always go into the water *feet first the first time*.
- Dive only in well marked and well supervised environments that are designated for diving..
- Don't dive or swim alone. Bring a buddy or have a qualified guard present.
- Never dive into an above ground pool – they are not designed for diving.
- Never run and dive.
- Never dive from retaining walls, ladders, slides, or other pool equipment.
- When diving from a diving board, always dive from the end and not the sides.
- Never dive through objects such as inner tubes.
- Do not slide down slides head first.
- Dive only using techniques that can reduce the risk of injury such as:
 - Attempt to enter the water shallowly to decrease the depth of the dive, and surface quickly after diving to decrease depth of dive.
 - Aim to enter the water at least 3.0 meters from the edge of the pool or shore to decrease the depth of the dive.
 - Keep hands together and arms extended above the head throughout the dive to protect the head and neck against impact in the event that the diver strikes the bottom.

Tips for Pool Owners, Lifeguards, Companions, and Aquatic Managers

- Teach safe diving techniques – See DiveSmart/Sudden Impact on thinkfirst.ca.
- Clearly mark water depths.
- Post signs warning of water depth and risks involved with diving.
- Be knowledgeable about rescue techniques and lifesaving measures.
- Provide appropriate supervision to those using the pool/dock etc.
- Prohibit the use of drugs and alcohol in the aquatic environment – alcohol is a major risk factor for catastrophic diving injury!
- Install and use adequate lighting, especially if the swimming area is to be used after daylight hours.
- Be especially cautious in a party environment, as a party host and/or companion, be responsible.

DID YOU KNOW?

- Diving injuries account for 10% of all admissions to spinal injury units in Australia, 9% in the United States, and 10% in Toronto area hospitals.
- In the ThinkFirst-Tator Study (2008) diving is the most common cause of spinal injury among all the sports and recreational activities in Ontario, and snowmobiling is the second.
- The majority of diving injuries are sustained in private, recreational, and unsupervised settings.
- The most common type of diving injury is damage to the spinal cord.
- The more you know about safe diving techniques the less likely you are to be injured.

Risk Factors to Consider

- **Supervision:** most of the injuries in the ThinkFirst-Tator study occurred in unsupervised settings and without lifeguards present.
- **Alcohol:** in the ThinkFirst-Tator study alcohol was a factor in 56% of the cases in which information about alcohol intake was available.
- **Water depth:** 95% of diving injuries occurred in water depths less than 8 feet in the ThinkFirst-Tator study.
- **Lack of depth indicators and warning signs:** an injury is more likely to occur in pools that do not have depths posted or signs warning of the dangers of diving.
- **Lack of diving knowledge:** more knowledge about safe diving techniques decreases the risk of injury.
- **Deep dives:** these dives increase the likelihood of striking the bottom of the swimming area.
- **Short flight distance:** this type of dive increases the likelihood of striking the bottom of the pool.
- **Great angle of entry:** dives with a higher entry angle increase the likelihood of the diver striking the bottom.

Remember: thinkfirst.ca before you play!