



# Summer safety: when diving, be sure the water is deep!

The Mayfield Clinic and Spine Institute urges parents, camp counselors, coaches, and primary care physicians to remind young people that diving into shallow water can result in devastating and irreversible injuries to the spinal cord.

A life-changing injury can be sustained when the spinal cord, a bundle of nerves that runs down the back from the base of the brain to the waist, is damaged or severed by trauma. This can occur during a dive into shallow water if the diver's head strikes the bottom, causing the vertebrae that encircle the spinal cord to collapse. If the spinal cord is damaged and it is unable to transmit nerve impulses to and from the brain, paralysis occurs.

## Safe means 10- to 12- feet deep.

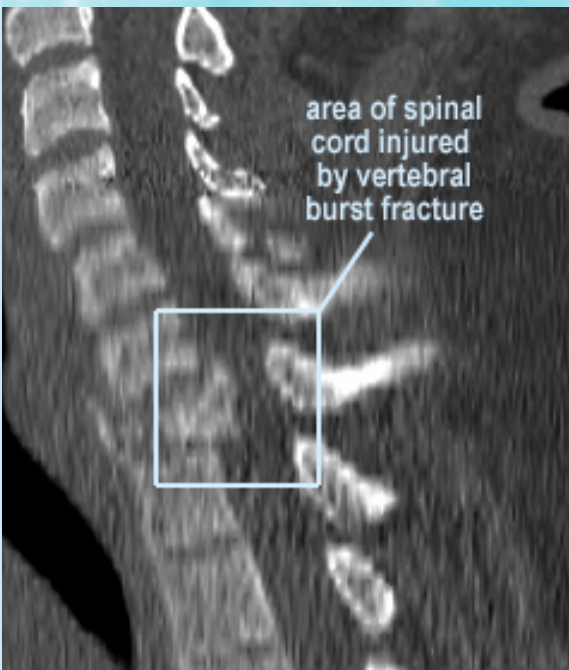
*"Witnessing a life-altering injury of this kind is probably the most tragic and preventable event I see."*

Charles Kuntz, IV, M.D., Neurosurgeon

Water that is safe for diving is deeper than most people realize. Please remember these safety guidelines:

- ✓ **Dive only into water that is 10- to 12-feet deep.**
- ✓ **Always enter the water feet first to determine depth.**
- ✓ **Never dive into an above-ground swimming pool.**
- ✓ **Remember that water levels in lakes and rivers can change over time. Water levels also can be impacted by unseen debris along the bottom.**

A basic knowledge of physics helps us realize that, because impact equals acceleration times mass, safe water levels will vary among individuals. What might appear safe for an 80-pound child might be completely unsafe for an 180-pound teenager. And what might be safe for a highly trained competitive swimmer might be completely unsafe for an average swimmer. So play it safe. **When diving, safe means 10- to 12-feet deep.**



CT scan of spinal cord injury resulting from shallow-water dive.

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