



# Naval Safety Center

## LESSONS LEARNED



LL 21-25

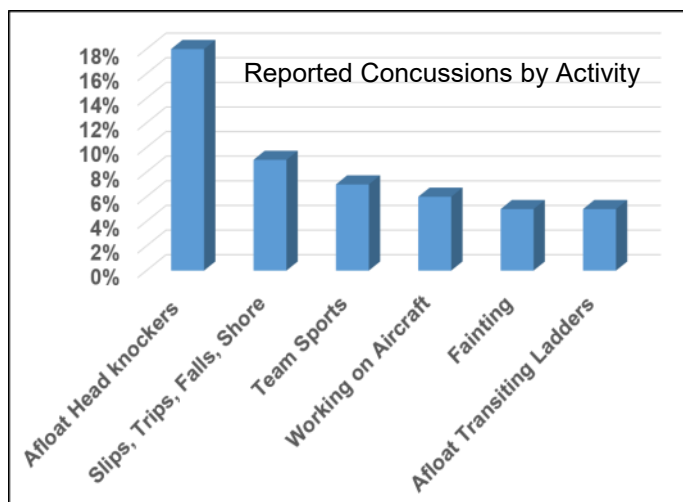
### CONCUSSIONS

*"Oh yes, the past can hurt. But the way I see it, you can either run from it or learn from it."*

*—Rafiki (from The Lion King)*

An average of 2.8 million people suffer from Traumatic Brain Injury (TBI) in the United States each year, according to Brainline.org. Of that number, most are mild TBIs, also known as concussions. What is a concussion, exactly? A concussion is a type of TBI caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth. This movement can cause the brain to "bounce around or twist in the skull," according to the Centers for Disease Control and Prevention.

We found nearly 250 reports of concussions in the NAVSAFECEN database from fiscal year 2020 through mid-August 2021. That's an average of more than 14 concussions per month in the naval services. Of note, we only tabulated concussions and not severe head traumas. Setting aside motorcycle and auto accidents, the graphic shows how we hurt ourselves at average human speeds. The highest percentage of concussions occurred while personnel were moving about in ships and submarines (we call these incidents "afloat head knockers"), and that's even after we separated out transiting shipboard ladders! Slips, trips, and falls ashore were second, while team sports (mainly football and soccer) were the third-highest.



- It's A Shipyard Thing. A Sailor was walking on the ship's fantail next to some scaffolding when he turned suddenly and hit his hard hat on the scaffolding, causing his head to jerk back. The Sailor's head continued to hurt the rest of the day, and, following an emergency room visit that evening, he was diagnosed with a concussion. — *Wearing a hard hat while your ship is in the yards can be a "pain," but not like the kind you'd experience by hitting your unprotected head on metal. This mishap could have been far worse, and our Sailor was fortunate he **only** received a concussion.*

- A Series Of Unfortunate Events. While carrying laundry through the ship's passageway, a Sailor hit her head on an "obstruction." After hitting her head, she tripped over a "knee knocker" and then fell to the deck with laundry in hand. She hit her head on the deck, causing bleeding, severe head and neck pain, and going in and out of consciousness. — *Sometimes, it's just not your day, but making sure you have a clear line of sight when transiting the passageway can help avoid days in the hospital, two weeks of convalescent leave, and three months of light duty.*

- When One Door Closes... During preflight checks, an aircrewman noticed the forward access door for the electrical and engineering compartment was left open. He attempted to close the door, but found it to be "stuck." As he tried to force the door closed, it dislodged, striking him between the forehead portion of the cranial and his goggles, knocking him to the ground, and causing a minor forehead laceration. The aircrewman returned to the preflight temporarily before reporting feelings of nausea and lightheadedness. He was later diagnosed with a concussion and placed on sick in quarters (SIQ) for 48 hours, followed by two weeks of light duty.

- • Anchors Aweigh. (*wall anchors, that is*) A Sailor was sitting at his work station when the cabinet above his head detached from the wall and fell on him, knocking him unconscious. Emergency medical technicians assessed him and took him to the hospital where he was diagnosed with a concussion. — *You probably don't go to work each day wondering if a cabinet will fall on your head, but after reading this, you may want to check. In this case, the cabinet was mounted with small wall anchors that were under-rated for the size and weight of the loaded cabinets. Have the pros install heavy items like cabinets and other mounted objects in your workplace.*
- • “Ain’t that A Kick In The Head?” A Marine was playing kickball as part of unit physical training. As she was running from third base to home, the Marine tripped and fell, hitting her head on the ground. She was diagnosed with a concussion and placed on 13 days light duty. — *This mishap shows head injuries are not exclusive to contact sports like football. Protect your head, you only get one.*
- • Read And Learn, Don't Bleed And Learn. A Sailor was leaving a civilian shipyard on an electric scooter (*without a helmet*) when he hit a small pothole, fell, and hit his head, resulting in a concussion and mild contusion to his head. — *With electric scooters' growing popularity and the inevitable mishaps that followed, we've put out three electric scooter Lessons Learned over the past couple of years. Each episode stressed the importance of wearing a helmet, but our E-scooter Sailor must have missed those warnings, or elected to find out the hard way why helmets are a good idea. Please read and learn from others; don't wait to bleed and learn for yourself. Wear a helmet.*
- • Don't Be This Guy. A Sailor was riding his bicycle through an intersection when he hit a puddle and fell, striking his face on the street. He was treated for a fractured cheekbone, mild concussion, and abrasions on the left side of his face, arms, and legs. He was given 72 hours SIQ and 14 days light duty. The Sailor claimed that he rides his bike at least four times a week, “never wears a helmet and will never wear one in the future.” — *SMH. If a concussion isn't enough to convince this stubborn Sailor to wear a helmet, we hope it's enough to convince you. Please wear a helmet.*



### Key Takeaways / Lessons Learned

1. **Keep a clear line of sight.** As you're moving about your workspace or at home, keep a clear view of what's in front of you, especially if you're carrying something bulky. Carrying laundry or boxes through a passageway isn't the time to practice your blindfolded egress training.

2. **Take a deep breath and slow down.** If you must, move with a purpose, but don't rush. Running aboard a ship, for instance, will only get you to sick bay faster. If you're not in a tactical situation or playing a running sport, move at the speed at which you can get there in one piece.

3. **If there's a helmet for it, wear it.** We harp on wearing helmets every chance we get and for a reason. We see too many reports of preventable head injuries and fatalities due to head trauma. A helmet may not prevent you from getting injured, but as some of our examples show, you're much less likely to suffer severe brain trauma (*or get killed*) if you're wearing one.

4. **Do a safety check.** Over time, safety hazards can build up as new equipment is installed or removed or spaces get reconfigured. These activities can leave exposed head knockers on overheads, walls, and bulkheads that no longer serve a purpose other than to ruin someone's day. Schedule periodic safety inspections — and don't forget about your home too.

