

TerranearPMC Safety Share

Week of July 21, 2014 – Amusement Park Safety

Summertime is in full swing and America is swarming to amusement parks. Disneyland and Disneyworld are two of the hottest destinations for family fun. On the local scene, water parks grab the excitement in just about every community. For years, Disneyland had the slogan, “The happiest place on Earth.” Then, on December 24, 1998, a heavy metal cleat fastened to the hull of the *Sailing Ship Columbia* tore loose, striking one employee and two park guests. One of the guests, a 33-year-old man, died of a head injury. This was not the first fatality at the world renowned amusement park; however it is considered to be the first *accidental* death. In 1964, a 15-year-old boy was injured after he stood up in the Matterhorn Bobsleds and fell out. It was reported that his restraint was undone by his ride companion. He died three days later as a result of those injuries. It was the first fatality at Disneyland. Then twenty years later, On January 3, 1984, a 48-year-old woman was killed when she was thrown from a Matterhorn Bobsled car and was struck by the next oncoming bobsled. An investigation found that her seatbelt was not buckled (It is unclear whether the victim deliberately unfastened her belt or if the seatbelt malfunctioned).

During the first week of this month (July), attention once again turned to amusement park safety after a tree branch fell on the tracks of the Ninja Ride at a Six Flags amusement park, near Los Angeles, California. The roller coaster was left dangling with its occupants stranded for hours with four people injured.

These cases are not isolated incidents. Amusement park rides (such as roller coasters, water slides, bumper cars, spinning rides, etc.) cause thousands of injuries each year; everything from cuts and bruises to broken bones and severe head trauma and even death. According to a study by the Center for Injury Research and Policy at Nationwide Children's Hospital in Ohio, between 1990 and 2010, more than 92,000 children were injured in amusement ride-related incidents. That's an average of more than 4,000 injuries per year. Sometimes, although quite rare, sabotage does happen. For instance, at the North Carolina State Fair, four riders were seriously injured when they were ejected from an amusement ride called the Vortex. The ride somehow started as passengers were boarding before all of the safety restraints were locked. Witnesses reported that three workers were seen struggling to lock the safety restraints about a half hour before the accident. A day later, the operator of the ride was arrested and charged with three counts of assault with a deadly weapon inflicting bodily injury. According to investigators, this person tampered with the ride's safety system after it had passed a state inspection earlier in the week.

The most common injuries from amusement park accidents include:

- Head, neck, and back injuries from bumper car rides or from being whipped around on spinning rides and roller coasters
- Death as a result of falling or being thrown from a ride
- Stroke from trauma to ligaments in the neck
- Traumatic brain injury from G-forces and stresses imposed on the brain by extremely rapid speeds or from detached objects hitting the rider's head
- Brain aneurysms from roller coasters or other fast rides



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- Lacerations, broken bones, and torn ligaments, and
- Drowning on water slides, "lazy river" rides, or other water rides.

According to the Consumer Protection Safety Commission (CPSC), there are several leading contributors to amusement park injuries and fatalities. Most injuries occur due to:

- **Mechanical failure of the ride.** For example, the lap bar detaches mid-ride, a roller coaster car detaches, or a structural component breaks. Mechanical failure could be caused by a manufacturing defect or the park's failure to maintain the ride.
- **Improper operation of the ride.** For example, the operator abruptly stops the ride or incorrectly latches a seatbelt.
- **Passenger misuse or failure to follow instructions.** For example, a rider intentionally rocks a car, stands up mid-ride, unlatches safety restraints, sits improperly, or holds a child above the safety restraint.
- **Inherent nature of the ride.** Even without any mechanical defect, operation error, or rider misuse, an amusement park ride may still cause an injury simply because of the nature of the ride itself. For example, according to the CPSC, consumers have reported cases of cerebral and retinal hemorrhage, subdural hematoma, loss of consciousness, headache, and dizziness associated with the extremely rapid spinning of some amusement park rides.

In addition, many guests have pre-existing medical conditions (diagnosed or undiagnosed), such as high blood pressure, heart illness, and recent back or neck injuries, which result in triggering or exacerbating such conditions.

Who regulates amusement park rides? According to MSN news (from an article published in July, 2013), the answer is murky. The federal government has no laws regulating the big rides found at fixed amusement park sites, although it does regulate movable carnival rides through the Consumer Product Safety Commission. Many times it is the individual states that provide certain safety regulations for roller coasters and other big rides; however, in practice, safety is left up to the amusement park industry itself as well as the insurance industry that may or may not provide loss control services.

This doesn't mean that visiting an amusement park will cause you to get injured or even increase your risk of getting hurt; after all with approximately 297 million guests visiting amusement parks annually and partaking in 1.7 billion rides, it appears that amusement park rides are designed with safety in mind: however, after reading about many of the accidents that happen, many like to increase their thrill by removing seat belts and standing up on roller coasters. There have been cases where people have jumped out of rides like gondolas and sky rides with the intention of landing into a pool or other body of water; all intentional at-risk behaviors. And when these types of situations occur, it is not uncommon for the amusement park to get sued: even though it was clearly the individual's decision to go out-of-the way and place themselves in harm's way.

I attribute my success to this: I never gave or took any excuse.

Florence Nightingale