

Fatal attractions: Are amusement park rides unsafe at any speed?

By Marc Silver

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It was one of the most calamitous weeks in the history of America's amusement parks. On August 22, a 12-year-old boy was killed after plummeting some 200 feet from the Drop Zone Stunt Tower at Paramount's Great American park in Santa Clara, Calif. The next day, a 20-year-old man partially removed himself from an overhead harness at the end of a 50-mph Shockwave roller-coaster ride at Paramount's Kings Dominion, near Richmond, Va. He fell and died. On August 28, the Wild Wonder roller coaster malfunctioned at Gillian's Wonderland Pier in Ocean City, N.J. A car hurtled backward, hurling a 39-year-old mother and her 8-year-old child to their death.

The four fatalities make it seem as if a day at an amusement park is riskier than a pogo-stick jump into the Grand Canyon. It isn't. Safety experts are stunned by the succession of accidents but quickly add that the timing is coincidental. Yet they do believe park patrons need to be more cautious than ever, citing the new breed of extreme attractions and the erratic state of inspection.

The 1999 death toll for amusement park riders is six. In addition to the four deaths in August, a woman drowned in March when a raft capsized at a Texas park, and, in June, a Brooklyn teenager died of internal bleeding when thrown from a decoupled car on Coney Island's Super Himalaya, whose circular vehicles speed along a hilly platform. That's higher than the yearly average of 2.3 deaths over the past decade, but still a remarkably small number in a country where amusement parks welcome 300 million visitors annually.

Chances of hurting yourself, however, are rising. In 1998, there were an estimated 9,200 ride-related injuries, a 24 percent jump from 7,400 injuries in 1994, even though visitorship rose only 12 percent. And injury figures, compiled by the Consumer Product Safety Commission from hospital records, are far from complete. A recent lawsuit showed just how many people can be hurt by even one ride. In 1995, Zipora Jacob rode the Indiana Jones Adventure in Disneyland, which takes patrons on a nearly five-minute trek in an all-terrain vehicle, dodging bats and rats. Jacob said she suffered a brain hemorrhage because of "violent shaking, jolting, and jouncing," and filed suit. Her lawyer obtained Disney records indicating scores of injuries on that ride to backs, necks, legs, and heads. In June, the two parties reached a confidential settlement.

Hung up. No one knows how many rides malfunction without causing injury. On August 31, a U.S. News reporter rode the Volcano, a hanging coaster at Kings Dominion that sends riders up a steep incline, then shoots them through loops and curves at speeds up to 70 mph. The train left the platform, paused at the mouth of the "volcano," 150 feet in the air, then suddenly sped back down to the launch bay. It's not supposed to go backward, the reporter thought. But the backward return is exactly what the ride is programmed to

do in an emergency, says a spokeswoman. Parks may log such incidents internally but do not have to inform authorities. "If it's not supposed to happen, it should be reported," even if no one is injured, says Richard McClary, an amusement industry safety consultant in Memphis.

But reported to whom? After years of discussion about whether the Consumer Product Safety Commission had jurisdiction over amusement park rides, Congress passed a bill in 1981 defining "consumer product" to include traveling rides but not those permanently fixed in place at an amusement park. (Two of the sponsors were representatives from Southern California, home of Disneyland.) No one was officially given jurisdiction over fixed-site parks, so authority fell to whatever state or local office was willing to take it on.

Some states inspect rides regularly and require accident reports. In others, private insurers conduct inspections. Florida lets Disney World inspect itself because it has over 1,000 employees. Alabama, Kansas, Missouri, Montana, North Dakota, South Dakota, Utah, and Vermont have no inspection requirements. After the summer fatalities, Ann Brown, chairwoman of the Consumer Product Safety Commission, wants the federal government to play a stronger role. This week, Massachusetts Rep. Ed Markey will introduce a bill in the House to restore CPSC authority over fixed-site parks.

Currently, the commission swoops in only when carnival rides go awry. "That's all they can afford to do," says Robert Johnson, executive director of the Outdoor Amusement Business Association, a carnival industry trade group. A CPSC spokesman said it would be up to Congress to decide if the agency gets more funding.

In the meantime, recent accidents are causing some states to rethink their standards. After a teenager died on a Himalaya ride in Texas last year, state legislators began working on new laws. In California, Assemblyman Tom Torlakson has introduced for the second straight year a bill to tighten regulation of the state's permanent parks. "We regulate elevators and ski lifts," he says, "but [not] these high-tech rides." His bill passed the Senate last Friday and now goes to the governor.

Nonetheless, such rides do undergo exhaustive tests prior to opening. An accelerometer measures G-forces—the forces of gravity that push and pull you around in your seat on a roller coaster. Too many G's and riders would black out. Stick-figure devices are used to make sure the tallest person can ride safely. Engineers and park employees take test rides, and computers monitor restraints to ensure they lock properly. Still, you can't be too careful. Once tucked inside safety restraints, tug and pull, to see if they release. If they do, hold your hand up and holler.

While this year's deaths all took place at fixed site parks, industry experts say traveling carnivals can be even more dangerous. Mobile rides are constantly dismantled and reassembled. Most states inspect carnival rides that cross state lines, but there is no national standard. Anyone could buy a ferris wheel, set it up in a mall parking lot, and

start selling tickets. It could be days before a regulatory agency noticed, says safety consultant McClary.

Responsible carnival owners do take precautions. Responsible guests should, too. Most states with inspection programs paste permit stickers on traveling rides that pass muster. The date should be within the current calendar year. No sticker in sight? Ask for proof of a carnival's liability insurance.

At parks and carnivals, ride operators are part of the safety picture. But the monotonous nature of the jobs and the low wages—typically \$5.42 per hour, 27 cents above minimum wage—virtually guarantee that parks hire young, inexperienced workers. Quiz an operator on emergency procedures. The right answer: Shut down the ride, then seek help.

Don't let go. Your first instinct on any ride should be to follow directions. But thrill seekers love to disobey, throwing hands up, standing up, switching seats. "I've been in the business for 25 years, and if they tell me to hold on, I hold on and don't let go," says William Avery, president of Avery Safety Consulting in Orlando, Fla. Rides are designed for people in a specific posture; you take risks by not keeping your bottom in the seat and your hands on the bar.

Are certain rides more dangerous than others? According to CPSC statistics, roller coasters and whirling rides cause most of the injuries that require a hospital visit. Speed isn't the culprit—it's speed plus twists and turns. Aging baby boomers are discovering that bone-rattling rides can reveal a new weakness in the neck or back. Claims specialists say most riders who complain of whiplash are middle aged.

Slippery slope. Eyeballing a ride can't tell you how it will treat you. Talking to folks who get off could. Injuries also occur because riders ignore warning signs. A 5-foot, 1-inch, 250-pound woman dismissed a New Jersey park's warning that overweight people shouldn't go on a water slide. She suffered serious injuries and is suing.

Riders, especially young children, can be injured in mundane ways. Last year, Kathy Fackler's son David, then 5, caught his foot between the platform and the Thunder Mountain roller coaster car at Disneyland. His foot was crushed and all five toes had to be amputated. "I don't fault Disneyland," Fackler says. The family didn't sue, but Disney provided compensation and modified the cars "to make it harder" for such accidents to occur.

Despite recent disasters, psychologists still view amusement park rides as ideal for daredevils—far safer than weaving through traffic on skates. When all systems work properly, parkgoers can flirt safely with danger. "Drop 21 stories, run through a corkscrew, hurtle along at 70 mph," says Frank Farley, a psychologist at Temple University. "Sex doesn't even make it to that level." Some riders even get a perverse thrill from trying a ride on which a death occurred.

Yet the tragic summer of '99 may be a hard memory to shake. Even coaster fanatics are panicking, says Steve Urbanowicz, author of *The Roller Coaster Lover's Companion*. So are families who love thrill rides. Three days after a mother and her daughter were killed on the roller coaster at Gillian's Wonderland Pier, the Sadowl family of Horsham, Pa., visited the Ocean City park. The parents and their four daughters, ages 7 to 18, rode the tame blue train that circles above. "We were all nervous," Terry admits. None of her children wanted to go on any scary rides. And that was fine with her.

With Sara Hammel in Ocean City, N.J., Linda Kulman, Marissa Melton, Holly J. Morris at Paramount's Kings Dominion in Doswell, Va., Joellen Perry, Kenneth Terrell, and Mike Tharp in Los Angeles

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