Roller Coasters–Behind the Scenes Safety Features

By Britney Pieta

Roller coasters have been designed to help make the experience enjoyable and safety proof for people of all ages. There is a saying, *"What you don't know can't hurt you."* While this isn't necessary to know, it can make you trust roller coasters more. We all know how scary it can be if the ride stops in the middle of it and you are stranded on the top for hours. So, there's a lot of work put into making a roller coaster the way it is. Here is the inside scoop about some of the special features the makers have designed just for your personal information and knowledge.

Roller coaster accident lawyers have provided a list outlining some important safety features intended to prevent roller coaster accidents and injuries.

- Blocks – Many automated coasters run multiple trains and are divided into "blocks." Only one roller coaster train is allowed on a block at any given time. Sensors detect when a train has left a block and another can be allowed on. Sensors can prevent dispatch of a train, apply braking actions, or prevent lift up an incline to keep a train from moving into an occupied block if necessary. This important safety feature of the block system exists to prevent injuries from unintended train collisions.

- Brake runs – Many roller coasters employ "brake runs" to slow a train down at the end of a ride or at certain points during the ride. The trains themselves might not have any brakes of their own, but rely on these specially designed sections of track to run out their kinetic energy and come to a halt or slow down to safe speeds so that excessive g-forces don't harm your body.

- Sensors – Automated roller coaster train systems employ computerized sensing systems to detect mechanical failures, speeds and positions of trains, and to activate block and braking systems as needed to separate or slow down trains. These computerized systems prevent train collisions. They can detect signs of mechanical failure and send signals to bring trains to a stop before a mechanical failure results in injury or death.

- Lap bars – Very few roller coasters still use the old seat belt system. Many employ the padded metal lap bar. The lap bar comes down across seated passengers and locks into place to prevent impacts on sudden turns and inversions as well as ejection of the riders from the coaster.

- Shoulder Harnesses – More and more coasters are employing the padded, U-shaped shoulder harness that locks down over the rider's upper body. The shoulder harnesses are more effective for keeping riders safely in place during inverted loops and particularly treacherous drops.