Safety Bulletin: Dangers Related to Doors
Hand and Finger Injuries

What is the Danger?

As part of our on-going monitoring of the individual claims and trends we have identified a growing trend related to children’s hands or fingers being caught in closing doors. The incidents reviewed all have similar factors in common - a child’s hand or finger(s) being caught between the door and the door frame on the hinge side of the door.

These incidents have resulted in bruised, crushed and/or smashed fingers. The potential for more serious injuries exists, including fractures or amputation of one or more fingers.

How do these claims occur? While entering or exiting the restaurant, restroom, play area or other areas with a door, or just standing or playing in the area near a door, a child will innocently wrap their hand around the open door or door frame and as the door closes, the child’s hand or fingers are caught between the door and the door frame on the hinge side of the door. The force created on the hinge side of the door as the door closes can reach 40 tons per square inch, and the child may not be strong enough to stop the door from closing or open the door in order to free their hand or fingers.

In many cases, the doors are equipped with automatic closers, which will prevent the door from being slammed and prevent injuries on the latch side of the door, but may also contribute to the incidents on the hinge side, especially from the added pressure as the door completes the closing cycle.

National Statistics:

According to the National Safety Council, approximately 300,000 door related injuries requiring a hospital visit occur each year in this country. The Consumer Products Safety Commission statistics reveal that over 100,000 finger, hand or wrist injuries require emergency room treatment each year, with many of these involving children.

Also, according to a study (published in the January 2010 edition of the Journal of Trauma) from the Center for Injury Research and Policy of the Research Institute at Nationwide Children's Hospital in Columbus, OH, more than 950 children visited emergency rooms in 2003 for traumatic amputations. The study abstract indicated that fingers and thumbs accounted for 64 percent of the total number of these injuries. The study also indicated that among children four (4) years old and younger, fingers and thumbs accounted for 80 percent of amputations, which most often were the result of being caught between objects. Children younger than two (2) years old had the highest rate of amputations overall - most related to doors.

What can you do?

- Conduct an assessment of your property, any areas doors where children may be present can potentially cause an injury.
- Ensure that all doors are properly installed and the hinges are in good condition and properly secured.
- If equipped, ensure that the automatic door closers are in good condition, properly adjusted and in good working order.
- If the door has a panic bar, inspect the door to ensure that there are no pinch points between the bar and the door frame as the door closes.
- Install door hinge guards, which are designed to cover the gap between the door and the door frame on the hinge side of the door. These guards are usually very easy to install and when properly installed and maintained, will reduce and/or eliminate the exposure related to these types of incidents.
- Attach hinge guards with screws rather than glue for a stronger and more durable connection

Conclusions:

Doors do not need to be a danger to your guests and patrons. A thorough risk assessment and installing the proper safety devices can prevent these injuries from occurring. The overall cost is negligible when compared to the pain and suffering that can be prevented to the hundreds of little fingers that can come in contact with the doors in your restaurant every day.