

## Playground: safe haven or catastrophe?

Jim DiNoto, Risk Services, Zurich Insurance Group

Zurich Insurance Group is the excess insurer for the SUMAssure Insurance Reciprocal. SUMAssure is the first ever Saskatchewan domiciled insurance reciprocal. SUMAssure is owned by over 150 of our province's cities, towns and villages. For more information visit [www.sumassure.ca](http://www.sumassure.ca)



The term playground conjures up the happy sounds of children laughing and playing on a sunny day, kites in the air and maybe even a picnic lunch.

Although minor injury can be thought of as part of learning and playing, sadly every year children are severely injured or killed due to injuries sustained on playground equipment.

Each year, the Canadian Hospitals Injury Reporting and Prevention Program (CHIRP) reports thousands of injuries related to playground mishaps at home, schools, and public parks. The Centre for Disease Control and Prevention (CDC) reports an average of 223,000 emergency room visits each year attributed to playground injury.

Both the CHIRP and CDC highlight falls to the ground as the leading cause of injury for playground equipment. Some of these falls result in serious injury, including death.

The leading injuries on playgrounds include fractures, internal injuries, dislocation and amputation.

The good news is that through redesign efforts playgrounds are now safer. Routine maintenance and inspection practices can reduce or control many of the risks previously associated with playgrounds.

### Standards and laws

The Canadian Standards Association has developed minimum standards for playground equipment under CAN/CSA-Z614-07. This is the only nationally-recognized standard for playground equipment and, while not law, it does set the minimum acceptable standard that should be voluntarily complied with based on industry best-practice standards. Some jurisdictions have adopted this standard in their regulations as their minimum requirement.

### Prevention

#### Design:

Ensure playground equipment is age appropriate and that the area is properly signed to indicate intended age groups.

Since the majority of injuries result from falls, the height of equipment must be reviewed to ensure it is age appropriate. The US Product Safety Commission sets many guidelines that are also accepted in Canada and suggests a height of no more than 2.13 m (7ft) for children aged 6 to 12 years and 1.52 m (5ft) for preschool children.

It is often necessary to provide separate zones for preschool children that are clearly

marked and separated from the zones for older children.

Playground surfacing is also an important factor in mitigating exposures associated with falls from heights. Surfaces should be made of energy-absorbing material as accepted by CAN/CSA-Z614-07. There are many options available from solid to loose fill. Loose fill requires a minimum compacted depth of 300 mm (11.81 in) including wood bark/mulch/fibre, washed round pea gravel, and sand. Shredded tire crumbs require a minimum compacted depth of 200 mm (7.87 in).

Ensure that the play area is designed to facilitate adequate drainage and water runoff. This will extend the life of materials and prevent mould as well as potential slip and fall injuries.

The design of equipment barriers should use vertical bars within railings rather than horizontal to prevent barriers that would entice children to climb on or over them. The barrier top rail should be a round bar to further discourage climbing and sitting on the barrier.

#### Inspection and Maintenance:

Equipment should be inspected by staff

trained and certified in playground equipment safety, or by a qualified contractor. A routine inspection plan should include daily and weekly visual inspections and detailed monthly and annual inspections that look closely at the wear and tear on all aspects of the equipment as well as ground surfacing.

Visual inspections should include a general review for obvious damage and attention to wearing (moving) parts which should be replaced before they are completely worn.

Inspection of the surrounding area for tripping hazards should also be performed with every visit. This includes things like tree roots, exposed footings, rocks, uneven pavement, etc.

All inspections should be completed on a set schedule and a written report kept on file. Follow-up reports are essential when any repairs are made as a result of the inspection. Date-stamped photos should also be included.

Inspections should be completed year round unless the playground is physically closed down and not accessible in winter months.

If loose fill has become displaced, it should be immediately filled to maintain consistent minimum-depth requirements. This commonly occurs in areas such as swings, fire poles and the bottoms of slides. Additional loose fill may also need to be added and/or replaced as the base becomes compacted.

Ensure that posted signs are prominently in place and remain legible. Poorly placed, vandalised or weathered signs offer no advantage in reducing liability and

injury if they cannot be read.

It's a good idea to take pictures of the new installation which can be referred to from time to time to monitor equipment deterioration. This is especially helpful when new staff take over inspection and maintenance.

**Education:**

Design, signage and maintenance will only partially mitigate the exposures associated with playgrounds. Education is still an essential part of reducing incidents.

Education can be achieved through proper signage. Signs indicating the age group the equipment has been designed for, rules of play, and contact details for anyone that has questions or wishes to report any issues must be prominently located around all entrances.

Where feasible, emergency procedures should be posted. Consideration should be given to the accessibility of 911. Service may not be available if there are no telephones in the immediate area and cell phones are not considered reliable for call location.

A playground brochure could be developed to provide playground-safety education for parents and guardians. These could be provided in dispensers right at the playground or through a website listed on posted signs. Education programs can include a discussion of issues such as hazards of loose clothing and helmets as well as the importance of active playground supervision.

The brochure could be used to:

- Highlight the hazards of draw strings and scarves when playing on equipment. Scarves and drawstrings can

become entangled in pinch points such as the deck to a slide or deck to a fire pole. They can also get entangled in swings. Parents and guardians need to be made aware of the increased exposure for injury associated with loose clothing and even items such as headphones.

- Provide insight on equipment design and provide an explanation that the standard is intended for a user group between the ages of 18 months and 12 years.
- Encourage parents and guardians to perform their own inspection of equipment and inform them of the process for reporting instructions to the Parks department.
- Draw attention to community safety issues.

We will never eliminate injuries completely but we can manage the severity and frequency of injuries by educating the general public about hazards and the importance of supervision. Ensure your playground complies with the standards set by the Canadian Standards Association (CAN/CSA-Z614-07) and that regular maintenance and inspection procedures are established.

**References:**

- CAN/CSA-Z614-07 Children's play spaces and equipment ... A National Standard of Canada
- Centres for Disease Control and Prevention
- Canadian Hospitals Injury Reporting and Prevention Program (CHIRP)
- US Product Safety Commission ■

SEE YOU THERE!

**SUMA'S 108<sup>th</sup> ANNUAL CONVENTION**

FEBRUARY 3-6, 2013 IN SASKATOON

For more information, visit [www.suma.org](http://www.suma.org)



an agency of the Government of Saskatchewan

9th Floor – 1919 Saskatchewan Drive Regina SK S4P 4H2

Tel: (306)787-2105 Fax: (306)787-0069 [www.tpcs.gov.sk.ca/SHF](http://www.tpcs.gov.sk.ca/SHF)