Eliminating Playground Hazards

INJURY

Introduction

Playgrounds can be popular amenities in communities with children. But, they can also bring unforeseen bodily injury risks and liability exposure to communities and associations.

The majority of playground injuries result from falls or impact with climbers and swings. In fact, the majority of playground fatalities occur because of strangulation and elevated falls. Safe equipment design and installation, along with proper maintenance, can go a long way in preventing these and other types of common playground injuries. But, since no playground will ever be completely safe, adequate adult supervision is also important and necessary.

In an effort to help build safer playgrounds, we would like to offer a dozen steps you can take to eliminate hazards and minimize risks.

12 Steps to a Safer Playground

1. **PROVIDE ADEQUATE PROTECTIVE SURFACING BENEATH AND AROUND EQUIPMENT.**
   Nearly 80% of all playground injuries result from children falling from equipment. Placing loose fill and unitary surfacing materials within playgrounds can lessen impact and reduce these risks compared to grass, packed earth, concrete, or asphalt (which are unacceptable surfaces). Specific information on playground surfacing materials is available in the CAU Risk Management article titled *Playground Surfacing Materials* (GL-6).

2. **PROVIDE ADEQUATE USE ZONES AROUND ALL PLAY EQUIPMENT.**
   The use zones for playgrounds extend to a minimum of 6 feet in all directions from stationary equipment, such as climbers. For school-age swings, the use zone is 6 feet on each side, and two times the height of the swing pivot in the front and rear. For slides over 6 feet, the use zone at the slide exit is equal to the height of the slide. The entire use zone must have sufficient protective surfacing materials.

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What CAU Recommends

> Hire a Certified Playground Safety Inspector (CPSI) to inspect your association's playground and equipment

> Provide adequate protective surfacing beneath and around all playground equipment

> Purchase commercial-grade playground equipment with the International Play Equipment Manufacturers Association (IPEMA) certification

> Take steps to eliminate the 12 hazards discussed in this article

Need More Information?

Additional information on playground safety is available from the CPSC (www.cpsc.gov), the National Recreation and Park Association (http://www.nrpa.org) and the National Program for Playground Safety (http://www.playgroundsafety.org). Associations may also request additional information on this topic by contacting CAU's Loss Control Department.

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12 Steps to a Safer Playground *(continued)*

3. ELIMINATE PROTRUSION AND ENTANGLEMENT HAZARDS.
A protrusion is anything capable of cutting or impaling a child that falls against it. An entanglement hazard is a protrusion that is capable of catching strings or clothing worn around a child's neck, causing a risk for strangulation. Common examples of these types of hazards include bolts that extend more than two threads beyond the nut, open "S" type hooks and prongs, or handholds that extend outward from the support structure.

4. ELIMINATE ENTRAPMENT OPENINGS MEASURING BETWEEN 3 1/2 AND 9 INCHES.
Openings within this size range can allow a child's body to pass through, but not their head. Children will often attempt to enter these openings feet-first and slide through, creating a head entrapment hazard. Common entrapment hazards include openings at the top of the slide, between platforms, between climbing rungs, and between fence pickets.

5. PROVIDE SUFFICIENT SPACING BETWEEN EQUIPMENT TO AVOID OVERCROWDING.
Swings, slides, standing rocking equipment, and merry-go-rounds may not have overlapping use zones. Pieces of equipment over 30 inches high must have a 9-foot space between them. Smaller equipment, less than 30 inches in height, can overlap use zones so long as a minimum of 6 feet is left between each.

6. ELIMINATE TRIP HAZARDS ON THE PLAYGROUND.
Children often run through playground areas without looking carefully at their surroundings. Common tripping hazards can include components, exposed concrete footings, tree roots, rocks, abrupt elevation changes, and uneven surfaces.

7. ELIMINATE CRUSH, SHEARING, AND SHARP EDGE HAZARDS THAT CAN PENETRATE SKIN.
Certain pieces of playground equipment, such as suspension bridges, merry-go-rounds, seesaws, swings, and track rides can all have exposed moving parts capable of crushing fingers and other body parts. Take steps to eliminate these exposed hazards by covering them or removing the equipment altogether.

8. PROVIDE GUARDS ON ELEVATED SURFACES, INCLUDING PLATFORMS, RAMPS, AND BRIDGES, TO PREVENT ACCIDENTAL FALLS.
Preschool-age children are more susceptible to falls than older children are, so equipment intended for this age group should have guard rails on elevated surfaces over 20 inches in height, and protective barriers on surfaces over 30 inches. On equipment for school-age children, elevated surfaces higher than 30 inches should have guardrails and a protective area should be placed on surfaces higher than 48 inches.

9. REMOVE EQUIPMENT NOT RECOMMENDED FOR PUBLIC PLAYGROUNDS.
The Consumer Product Safety Commission (CPSC) does not recommend certain types of equipment on public playgrounds because of the serious injury potential they represent, or because they are considered athletic equipment not suitable for all children. Their list of equipment includes trampolines, swinging dual exercise rings, trapeze bars, swinging gates, giant slides, metal animal or figure swings, climbing ropes not secured at both ends, multiple occupancy swings, and rope swings. If your playground has any of this equipment installed, we advise that you remove it and replace it with other equipment that is suitable for the intended age group of the playground.

10. PROVIDE EQUIPMENT AND ACTIVITIES APPROPRIATE TO THE AGE OF THE CHILDREN USING THE PLAYGROUND.
Children of different ages have very different sets of abilities and developmental needs. The CPSC uses three age groups when recommending suitable equipment: toddler (ages 6 to 23 months), preschool (ages 2 to 5 years), and grade school (ages 5 to 12 years). Equipment such as freestanding arches or flexible climbers, chain and cable walks, fulcrum seesaws, log rolls, track rides, and vertical sliding polls are appropriate for school-age children but are not recommended for preschool and toddlers. If your playground is intended for all three age groups, take steps to separate the equipment and provide barriers to distinguish the different play areas.

11. MAINTAIN EQUIPMENT IN A SAFE CONDITION THROUGH A SCHEDULED PREVENTATIVE MAINTENANCE PROGRAM.
The Public Playground Safety Handbook, published by the CPSC, has a sample general maintenance checklist to guide associations through the preventative maintenance process that your community or association can use as a helpful guideline.

12. REQUIRE ADULT SUPERVISION OF CHILDREN ON THE PLAYGROUND AT ALL TIMES.
This rule can be difficult for an association to enforce, but a lack of adult supervision is a contributing factor in most playground injuries. With that in mind, there should be a written reminder of this rule posted at the playground. Associations can also design their playgrounds in a way that makes it easy for parents to view their children without obstruction.