

Summer Survival Guide to Managing Playground Risk

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Nothing beats the sound of children's laughter on a playground.

Playgrounds are an integral component of many risks that agents and underwriters encounter on a regular basis and include equipment on and at campgrounds, churches, day care centers, preschools, residential complexes, and restaurants. They represent a risk management challenge for businesses, individuals, municipalities and insurance personnel.

In evaluating playgrounds, not only must the type of equipment and confirmation of compliance with standards be considered, but also how the playground and equipment are maintained and supervised. Understanding the hazards playgrounds present and implementing comprehensive underwriting and risk management standards can greatly improve a company's bottom line, as well as reduce accidents and injuries.

Falls and the Dirty Dozen

When the weather is nice, everyone wants to go outside. Parks and playgrounds, both indoor and outdoor, are favorite destinations for children of all ages. Small children are by their very nature unpredictable, requiring strict supervision. But even children who are shadowed by adult guardians and taught best practices

at playgrounds can be at risk of injury.

The National Recreation and Parks Association (NRPA) has identified a "dirty dozen" leading causes of injuries in playgrounds:

1. Improper protective surfacing
2. Inadequate use zone—including swing zones and clearance at the bottom of slides
3. Protrusion and entanglement hazards—items that can cut a child who falls or that present a strangulation hazard
4. Entrapment in openings—including fences, ladders, and cargo nets
5. Insufficient equipment spacing
6. Trip hazards
7. Lack of supervision
8. Age-inappropriate activities
9. Lack of maintenance
10. Crush, shearing, and sharp-edge hazards
11. Platforms with no guardrails
12. Equipment not recommended for public playgrounds (www.nrpa.org)

Regardless of the overarching hazard, 75 percent of playground injuries result from falls (www.safekids.org). The Centers for Disease Control estimate that 200,000

children under the age of fourteen are injured each year on playground equipment and that, tragically, each year a number of children die from injuries sustained at playgrounds (www.cdc.gov). Most of these accidents can be prevented through proper risk management. And although there is no way to prevent all injuries, having written guidelines can help to avoid expensive lawsuits, which commonly cite "failure to supervise" as a counter claim.

Playground supervision of children under the age of five by parents or other designated adults is a must. However, older children should also be watched. In commercial playgrounds, at locations such as day cares, schools, or camp settings, employees or volunteers can fill this role, and supervisors must be properly trained and move about the playground. Procedures to be followed in case of injuries and emergencies should be clear, and provisions must be in place for instructing substitute supervisors.

The National Playground Safety Institute (NPSI) advises that play areas should include provisions for ease of supervision so that caregivers can easily see and quickly respond to children. Supervision is not limited to children's behaviors, but includes equipment evaluation, including



age appropriateness, and checks for broken devices, sharp edges, projections, unsafe modifications, and hot surfaces. If pets are allowed at the playground, care must be taken to avoid injury from dog bites.

Keeping a playground area clean is also essential. Animal waste from dogs and geese can harbor harmful bacteria, including salmonella. Anyone playing or sitting on the grass or infected equipment can become in contact with these. In fact, one study of public playgrounds showed that fifty-nine of sixty samples contained mold or bacteria that could make people sick. All of the samples included human fecal matter, and some contained salmonella, shigella, hepatitis A, or a norovirus. (<http://abcnews.go.com>) With that in mind, people—especially children—should wash their hands after visiting a playground, particularly before eating or putting their hands in their mouths.

Other Hazards

Falling hazards, while the most common cause of injuries in playgrounds, are not the only area of concern and potential third-party liability. Burns and choking are other common hazards, and trampolines are regarded as an overall danger.

Prolonged exposure to sunlight, regardless of the ambient air temperature, can heat up plastic, rubber, and metal to temperatures that can burn skin. Construction methods and materials have changed over the years so that metal slides

no longer become hot enough to seriously injure sliders; however, the need for safety and risk



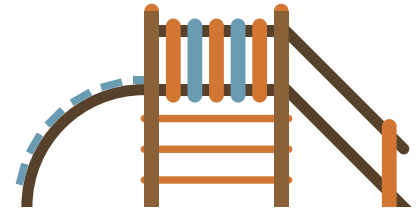
management remains.

Choking and strangulation hazards, meanwhile, come from ropes, strings, or pet leashes. Risks can be reduced by limiting use of ropes in the playground equipment itself, as well as by avoiding strings on children's clothing or bicycle helmets. Pets on leashes should be kept away from areas used by children.

The Consumer Product Safety Commission (CPSC) Public Playground Safety Handbook includes important playground-safety guidelines for all caregivers: paid, volunteer, or parental. Public playground equipment is defined in the handbook as equipment for use by children ages six months through twelve years in these playground areas:

- Commercial (nonresidential) child care facilities
- Institutions
- Multiple family dwellings, such as apartments and condominium buildings
- Parks, such as city, state and community-maintained parks
- Restaurants
- Resorts and recreational developments
- Schools
- Other areas of public use (www.cpsc.gov)

The Journal of Pediatric Orthopaedics reported that trampolines were responsible for more than 1 million emergency room visits between 2002 and 2011, with total expenses greater than \$1 billion. These visits included almost 300,000 broken bones, with costs exceeding \$400 million for fractures alone. (<http://journals.lww.com>) Further, because trampolines can blow away, injuring or damaging people, pets, or property in their path, trampolines must also be properly secured.



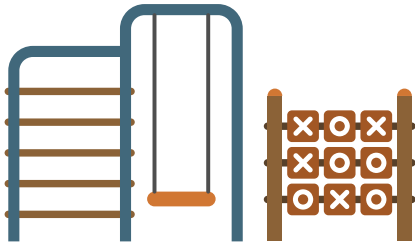
Because of the prevalent risk hazards, the American Academy of Pediatrics warns against trampoline use. And the CPSC recommends that trampolines are not used in public parks. Some insurance companies may not even cover the risks of injury or damage associated with trampolines.

Current Guidelines

Today, basic guidelines for constructing safe playgrounds include a soft surface with twelve inches of material, such as wood chips, mulch, sand, or pea gravel, or area mats made of safety-tested rubber or rubber-like materials. The protective surfacing should extend at least six feet in all directions from play equipment.

Many home playgrounds are built on grass or dirt—surfaces that do not offer adequate protection in a fall. For swings, the surface should extend twice the height of the suspending bar from in the front and back. Equipment should be safely anchored in the ground with no rust or sharp edges. “S” hooks must be entirely enclosed. In all cases, local building codes must be followed.

The CPSC Public Playground Safety Handbook lists specifications for both equipment and play area construction. (www.cpsc.gov) Some of the top equipment associated with injuries are climbers, swings, slides, and overhead ladders. At public playgrounds, most injuries occur on climbing equipment. Swings represent the greatest danger of injury for residential playgrounds. The



National Program for Playground Safety (NPPS) serves as a clearing house for information on playground safety.

Swings should be located in an area with a clear space around them and installed in accordance with the CPSC handbook regarding space between them and number of swings permitted in one bay. Although bucket swings for toddlers, single-axis swings, and multi-axis (tire) swings all have different safe-installation requirements, they also share some general guidelines:

- They should not be installed in the same bay.
- There should be no open “S” hooks that can become tangled in clothing.
- The supporting structure of the swing should not have cross bars that encourage climbing.

Swing seats of lightweight plastic or rubber material minimize impact injuries. Children need to be cautioned not to stand, walk, or run in front of a swing or to push another child on a swing. When swinging, the child should hold on, not stand up and not jump off, until the swing has stopped moving.

Slides should be placed with consideration of sun exposure to prevent thermal burns from the equipment. Slide surfaces should be tested for heat by an adult supervisor, regardless of the material used. All slides should have a platform at the top with guardrails or barriers. Specifications vary

depending on the type of slide and age for which it is intended. The landing area should be clear of harmful debris and other children and extend a minimum of six feet. It should not overlap other equipment areas.

Many resources are available to consumers and contractors when designing and building playgrounds. The CPSC publishes numerous guidelines, and the American Society for Testing and Materials (ASTM) also publishes standards for various types and portions of playgrounds, including equipment, fencing, and surfacing. Manufacturers are expected to comply with these standards and to provide the consumer with evidence that the materials have been successfully tested in an independent laboratory.

Arkansas, California, Connecticut, Florida, Illinois, Michigan, New Jersey, North Carolina, Oklahoma, Oregon, Rhode Island, Tennessee, Texas, Utah, Virginia, and Wyoming have adopted all or parts of CPSC or ASTM in legislation or regulations on playground safety. Adoption of these guidelines is a critical part of risk management. For insurers, A.M. Best’s Underwriting Guide is an invaluable source of information.

Special Challenges for General Liability

The playgrounds at fast food restaurants, campgrounds, day care centers and preschools represent special challenges for general liability coverage. The addition of food service, for example, presents a need for management to be scrupulous about cleanliness. Ball pits in play areas have been reported to contain dirty diapers, uneaten food, and even syringes. Even surfaces that appear to be clean may be contaminated.

Play equipment should be inspected regularly following manufacturers’

specifications in addition to the CPSC and ATSM requirements. Staff should be properly trained in inspections, monitoring, and corrective action if necessary in the play area. Signs and posters clearly indicating the rules, any height or weight restrictions, and hand-washing precautions should be posted. Children should not eat in the play area.

In 2011, Erin Carr-Jordan began a personal campaign regarding cleanliness in fast food restaurant playgrounds. She found bacterial contamination and unsafe conditions in many of these facilities. In response to the subsequent publicity, numerous state legislatures introduced and implemented bills regarding guidelines for providing safe play environments at playgrounds in food facilities. For example, California requires that all surfaces of indoor and outdoor playground facilities be kept clean, in good repair, and fully operational and that signs be placed prohibiting food in the play area. Information on maintenance and cleanliness inspections must be posted or available upon request.

For indoor playgrounds, adequate means of egress, illuminated exit signs and emergency lighting in accordance with NFPA Standard 101 are required. There should be plans in place to deal with emergencies and evacuations. Daycare center and preschool playgrounds should be constructed in accordance with the CPSC and ATSM guidelines. NRPA maintains a database of certified park



inspectors (https://ipv.nrpa.org/CPSI_registry/default.aspx).

Residential playgrounds have increased in size and complexity. This presents an increased underwriting and claims exposure for personal lines carriers. Jungle gyms, tree houses, and trampolines are attractive nuisances. Fences with locking gates can help reduce the chance of uninvited guests. And in addition to the previously noted ropes and pet leashes, cargo nets present strangulation hazards, especially when the openings are between seventeen and twenty-eight inches.

Sandboxes are a favorite destination for small children. Unfortunately, they are also a favorite of animals and insects. To help prevent potential contamination, sandboxes should be covered when not in use and cleaned regularly. Wet sand can harbor bacteria, so construction should allow for drainage, and sand should be dry before it is covered. The sand should be sifted and raked occasionally, checked for foreign materials, and replaced every year or two.

There are concerns regarding possible carcinogens in play sand, including crystalline silica and tremolite asbestos. Recommended sand is natural river sand or beach sand. Sand containing crushed limestone, marble, or quartz, or sand that is very dusty, should be avoided. (www.healthychildren.org) The location of the sandbox should be away from active areas of slides or other equipment and wind direction should also be considered when placing the sandbox.

Landscaping and lighting are other areas to consider. Installing trees and shrubs with berries, nuts, and sharp thorns should be avoided. Playgrounds associated with sports fields that are used at night must

have adequate lighting or be fenced and locked to prevent access.

Environmental Hazards

The use of pesticides on or near playgrounds and playing fields is another area of concern, with thirty-six states having adopted school pesticide regulations. (www.panna.org) In June 2015, Connecticut passed legislation extending the restrictions on pesticide application on school grounds to municipal playgrounds. Emergency applications are allowed, but in those cases, prior notification is required. New York bans application of pesticides to playgrounds, turf, and athletic and playing fields by schools and day care centers.

Artificial turf has been used on playing fields to alleviate the pesticide risk, with the Synthetic Turf Council reporting that there are more than 8,000 multiuse synthetic turf sports fields in North American schools, colleges, parks, and professional sports stadiums. Over 35 million square feet of synthetic grass was installed for landscape and recreational use in 2012. But synthetic turf has its own issues. For example, on February 17, 2016, the Environmental Protection Agency (EPA) announced a federal research action plan to determine whether crumb rubber, which is used in playground surfacing and synthetic field surfacing, poses health concerns.

Numerous other environmental hazards exist. Chromated Copper Arsenate (CCA) is a toxic substance that was previously used to treat and preserve wood in many consumer products, including picnic tables, decks, railings, and playsets. Although its use is now banned in most states, existing structures installed before 2003 may still pose a hazard and therefore should be sealed or removed in compliance with local regulations. Lead paint

exposure is another risk factor that may exist with older playground equipment and that should be eliminated. (www.healthyschools.org)

Communication of known hazards is especially important when the playground is used by multiple unrelated organizations, such as a school or an after-care program. Checklists for safe playgrounds are available from the NPPS, which has identified four key components:

1. Supervision of children at all times
2. Age-appropriate design
3. Fall surfacing that is appropriate to reduce injuries
4. Equipment maintenance (www.playgroundsafety.org)

An additional component of the risk management process is keeping up with product safety recalls issued by the CPSC. Parents.com maintains a list of recalled equipment on its website (www.parents.com/product-recalls/playground-equipment/), with additional resources for playground safety available from the CDC.

With help from these and the other resources and authoritative bodies available, people can continue to enjoy the sound of children laughing on playgrounds this summer—instead of the jarring sound of hurt cries. By understanding and addressing the unique hazards associated with playgrounds, insurance professionals can minimize the risks through proper underwriting and risk management practices.

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