Playground Best Practices

11 steps to a successful playground

By Monty Christiansen, CPSI

The much-debated (and sometimes maligned) term "best practices" refers, at least in my mind, to those practices that have produced outstanding results for folks I consider to be excellent playground providers. If you're looking to build, retrofit, or simply improve your current playground experience, I encourage you to consider utilizing these 11 "best practices"—they have proven very successful.

1. Strive to Purchase Equipment with High "Play Value"

Play is not just a way for children to pass the time. Rather, it is how children of all ages grow, develop, improve, challenge, and stimulate their minds and bodies. Of course, it's also fun, fun, fun!

As you sit down to design a new playground (or retrofit an existing one), work to ensure it provides maximum "play value"—defined as all of those play sensations, opportunities and experiences which consciously and spontaneously encourage child development.

These elements come in the form of the playground's physical environment (open grassy areas, trees, sidewalks, etc.), the play equipment itself (slides, swings, climbers, jumpers, etc.) and the children (and their playmates). If you're sitting in a budget meeting and trying to decide where to cut and where to add, this is an area to add.

Research has shown the benefits of upper-body equipment, climbers, swings, slides and rotating, rocking and balancing devices in the development of children. A playground with high play value needs to have a variety of these elements and the more the better. All of these elements work together to provide settings for social exchange, problem-solving scenarios, and physiological growth. And best of all, they're cleverly disguised as fun.

Julian Richter, founder of the German playground equipment company Richter Spielgerate GmbH, said it best, "We should have as much play value as we can possibly afford, but only as much safety as is necessary." As we've discovered, a playground with high play value is usually a safer playground than one with low play value because children use the equipment spontaneously in naturally safer ways than children who must force amusement from non-stimulating facilities.

2. Make Sure Your Playground Meets Appropriate Safety Requirements

Playground equipment safety criteria in the United States are based upon sound principles including age appropriateness, elimination of known accident causes as reported through the National Electronic Injury Surveillance System and case law, and anthropometrics--the measurement of children's physical dimensions, skills and abilities. The two equipment safety criteria generally accepted as the industry standards of care in the United States--the United States Consumer Product Safety Commission's *Handbook of Public Playground Safety* and the American Society for Testing and Materials' standard ASTM F1487, *Standard Consumer Safety Performance Specification for Playground Equipment for Public Use*--are performance criteria, not design restrictions. The comparable standard in Canada is CAN/CSA-Z614, *Children's Playspaces and Equipment.* These safety criteria permit manufacturers to demonstrate creativity and innovation as well as safety in their products.

Purchasers of playground equipment in the United States may verify that any equipment they are considering has been checked for compliance with either the U.S. or Canadian standard by searching for that item by manufacturer and model number on the Web site www.ipema.org. The third-party certification validation program is administered by the Detroit Testing Laboratory.

3. Have Your Equipment Installed by a Qualified Installer

Playground equipment arrives from the manufacturer as a set of parts requiring careful assembly and installation. The installers should be trained individuals, able to read and understand assembly directions, plans and other graphics; knowledgeable about soils, drainage, concrete, asphalt and other construction materials; skilled and experienced in the use of construction tools, equipment and machinery; and certified in playground installation from either the manufacturer of the specific equipment being installed, or by the International Playground Contractors Association.

4. Install and Maintain Sufficient Safety Surfacing

The most frequent cause of reported injuries to children on playgrounds is falling. To reduce the frequency and severity of fall injuries, all public playground equipment must be installed over appropriate safety surfacing. The *Standard Guide for ASTM Standards for Playground Equipment* (ASTM F2223) is an excellent summary of standards for selecting and specifying surface systems. This guide describes how to apply the appropriate ASTM Standards to evaluate accessibility characteristics and product characteristics. It is essential that the surfacing material or product used has sufficient depth or thickness to ensure adequate impact attenuation, is installed with correct surface and subsurface drainage, and is well maintained.

5. Require CPSI Verification of Standards Compliance Prior to First Use

Part of the construction of a playground should be a post-installation safety audit performed by a Certified Playground Safety Inspector (CPSI) prior to acceptance by the owner. This audit should include all the equipment and the surfacing. Any condition found to be non-compliant with the

standards should be evaluated and given a priority rating based upon the exposure, probability of injury and, most likely, injury severity level. Severe non-compliances, rated as "Priority One," should be corrected immediately, before the playground is accepted for use. Other non-compliances should be scheduled for correction in a reasonable time frame based upon owner/operator policy.

6. Establish and Use an Effective Playground Maintenance Program

New playground equipment and surfacing generally function as they are intended. New materials initially resist wear, weather and deterioration. But use and exposure will eventually take a toll on all playgrounds. It is only by developing and using a well-planned maintenance program that older equipment can continue to be safe and enjoyable for all users. The maintenance program must be based upon the specific equipment in the playground, the materials used in the manufacture and installation of the equipment, the amount of use it receives and the environmental conditions it is subjected to.

An effective maintenance program includes annual in-depth safety and maintenance inspections, frequent primary issues safety and maintenance inspections, an effective procedure to take broken or unsafe equipment out of service and a means to provide good health and sanitation conditions.

7. Perform Annual In-depth Safety and Maintenance Inspections

At least once a year, a thorough safety inspection and preventive maintenance-needs assessment should be undertaken for every playground. Each structure and its surfacing should be carefully examined according to an itemized, standardized checklist. Any signs of wear, damage or deterioration must be noted and evaluated to determine what needs to be done to correct, repair, or replace problems, or preserve good conditions.

The purpose of the annual inspection is to take a proactive approach to maintenance (i.e., to identify indications that problems are coming so that preventive actions can be taken before the problem develops). As a part of this annual process, points of motion and wear should be checked; worn bushings, bearings, and S-hooks replaced; lubrication applied according to manufacturer directions; types and extent of all corrosion recorded and corrected before permanent degradation occurs; extent of thermal or UV deterioration to materials noted and preservation efforts instituted; as well as all levels of other wear, breakage or damage recorded and repaired or replaced. Preventive maintenance based upon comprehensive annual inspections will extend the functional life of the equipment and surfacing, and ensure the safety of the playground.

8. Perform Frequent Primary Issues Safety and Maintenance Inspections

Conditions of playground equipment and surfacing can change quickly. They can suffer from storm damage, vandalism, fire or other sudden natural or man-made catastrophes. Other less severe but problematic conditions may develop quickly as well—the overnight appearance of broken glass,

hypodermic needles, nails; users kicking away loose-fill surfacing to below minimum protective depths; sand or pea stone tracked onto hard surfaces and creating a slip hazard.

It's a wise practice to have routine, early safety and maintenance inspections of playgrounds to ensure they are unbroken, functional, clean and hazard-free before children arrive. The frequency of these inspections should be determined by the use patterns of the playground. For some playgrounds, this may be an early-morning, daily process; for others, this may be a weekly one. It's recommended that these inspections be based upon an itemized checklist and take no longer than five minutes unless cleanup or repairs are necessary.

9. Have a Procedure for Effectively Taking Broken Equipment Out of Service

Children do not stop using playground equipment when it is broken. They usually adapt to the change and continue to use it in new ways. This can be detrimental to both the children and may cause additional harm to the equipment. It is important to have a predetermined procedure to remove or take broken equipment out of service. It is not enough to tag the condition with plastic warning tape or cones. These generally just attract children to the area and are easily removed or disregarded.

Steps must be planned in advance to remove or secure dysfunctional parts. These items should be immediately removed, made immovable, or made inaccessible. Elevated openings caused by missing play components need to be securely blocked until replacements can be installed. Wise playground operators anticipate these situations and have established procedures for taking equipment out of service, and have on-hand the materials and tools needed to do this.

10. Practice Good Health and Sanitation Procedures

Good playground providers not only protect users from injury, but they also protect them from unhealthy or unsanitary conditions. There are many things that may be present at a playground that, while not a physical hazard, can adversely affect users. Examples include infestations of mold, fungi or other toxic plant growth, presence of animal or human bodily wastes and fluids, and spills of maintenance chemicals or machinery oil or fuel.

Proper preventive measures need to be taken to inhibit noxious infestations. Cleanup of feces, urine, vomit, or blood on playgrounds must be done not only immediately but according to approved sanitary procedures. Maintenance personnel need to be trained to properly handle all hazardous substances and have ready access to the Material Safety Data Sheet for all maintenance chemicals used. Clean, uncontaminated playgrounds are the result of careful planning and good sanitation procedures.

11. Strongly Encourage Competent Supervision of Users, Based Upon Age and Activity

Many European countries have certified play workers employed by municipalities and stationed as supervisors at public playgrounds when the facilities are open. The playgrounds are fenced, and gates are closed and locked when the play workers are not on duty. In the United States, public playgrounds are typically open and are not supervised by trained staff. It is generally assumed that parents, guardians, babysitters or even siblings are capable of supervising children on playgrounds. Just recently, new playground safety criteria have included two signage requirements: the age for which the playground is intended and the recommendation for adult supervision.

It is accepted practice that younger children need more direct, active supervision while older children do not. Some of the more conscientious school districts and childcare centers provide in-service workshops and training sessions for teachers and other playground supervisors. A few community centers and community education programs include playground supervision for mothers or mothers-to-be as part of parenthood-preparation short courses. These programs include recognition of changes that weather may have upon playground use, a safety scan, age-appropriate activities and equipment, close supervision when necessary, supervision of play on motion and stationary equipment, inappropriate behavior and bullying, and contacting playground authorities if necessary.

In priority order, the key—the most important best practice to be followed by playground providers who aspire to be "the best" is the first one listed: provide a playground that has the highest possible play value. The remaining practices support this provision and provide the synergy to make the playground the joy of the children and parents as well as the playground operator. All together, these become the best practices of playground providers.

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