

THE OFFICIAL PUBLICATION OF THE NATIONAL RECREATION AND PARK ASSOCIATION

# 2020 PLAYGROUND GUIDE

NRPA National Recreation and Park Association
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What Does the Future Hold for Playgrounds?

Safety and Maintenance: Going Beyond the Obvious

# Detecting Playground Defects

# Going beyond the obvious

By Lee E. Martin, AIA, CPSI

hile playgrounds are designed to provide graduated physical, psychological and emotional challenges to children, according to the U.S. Consumer Product Safety Commission (tinyurl.com/yco9drf7), repetitive or frequent injuries on a piece of equipment suggests that an unsafe condition exists. How do you go about investigating, identifying and eliminating a potentially dangerous condition in the interest of public safety and agency liability, and when does a piece of equipment warrant removal from service? Ultimately, the decision of whether to remove a playground or a piece of playground equipment from service remains a matter of professional judgment.





Playground inspections must be performed by staff members who are properly trained.

How soon a playground defect requires attention depends on the priority level of potential injuries. The ASTMI/CPSC Playground Audit Guide (tinyurl.com/y439r39p) states that injury priority level is determined without regard to the potential cause of the injury or the standards met by a piece of playground equipment. A hazard that exists may or may not be a priority level one (likelihood of permanent disability, loss of body part, death) depending upon location. A piece of playground equipment that complies with applicable standards can be the location of recurring serious injuries. Where the likelihood of priority level one injuries exists, remediation must be done immediately, according to the Certified Playground Safety Inspector (CPSI) training course administered by NRPA. Otherwise, the piece of equipment must be taken out of service.

Cause of serious injury on a piece of play equipment can only result from the way in which the playground or its components are used, maintained, constructed or designed. Patent (i.e., obvious) defects are most often noted and remediated routinely. An appropriate method of detecting a latent (i.e., hidden) defect would address each of the following known causes, in turn, from most to least obvious:

## Improper Use and **Poor Supervision**

Are playground patrons misusing the equipment?

Manufacturers of playground equipment are required to anticipate how their equipment can be misused and provide safety measures in those situations. If serious injuries result from improper use of a piece of equipment, then the equipment needs to be modified by the manufacturer. Warnings and supervision are less reliable preventive measures. As modifications require time to design, fabricate and install, the equipment should be taken out of service if the likelihood of priority level one injuries exists.

### Site Planning Issues

Are other physical aspects of the

playground contributing to injuries?

Having already checked sight lines, surfacing and conformance of the playground apparatus to applicable standards, we must check to ensure pieces of equipment are not in conflict with one another in terms of adjacency and zone of use separation. If conflicts exist, equipment may have to be relocated. Climatic conditions are another area to investigate.

#### Poor Maintenance

Have we performed timely and effective maintenance on the piece of equipment?

Inspections must be performed by staff members who are properly trained to recognize safety issues and equipment defects. If the inspection does not reveal a defect, additional effort is required. While the investigation continues, risk of serious injury would determine whether or not the equipment was left in service.

Does the piece of equipment comply with applicable regulations and

The purpose of playground audits is to determine conformance with applicable standards. Conformance will not eliminate all playground injuries. If the piece of equipment is compliant with applicable regulations and standards, additional effort is required to find a defect. Risk of serious injury would determine whether or not the equipment was left in service during that time.

Are we maintaining adequate man-

agerial controls in the form of safety policies, staff training, inspection records and injury incident reports?

The Risk Management Plan, the General Playground File and the Site History File developed by the playground owners and managers are designed to provide useful information regarding what requirements need to be verified through audit, inspection and retention of agency records, including injury reports, to ensure playground safety. Audits and inspections must be comprehensive to be effective. To avoid future injuries, it is critical that playground owners and managers use data, such as injury reports, to identify hazards or general trends in accident frequency.

#### **Installation Errors**

Was the piece of equipment constructed in accordance with the manufacturer's drawings and specifications?

If the manufacturer's drawings or specifications were used to determine compliance with applicable regulations, standards or guidelines, it would be necessary to verify that the equipment on the playground complies with those documents. Errors can occur during fabrication of playground equipment, and changes in the field can alter critical dimensions. If a defect is detected and remediation cannot be done immediately, removal of the equipment from service would be justified if there is a likelihood of a priority level one injury.

#### **Design Defect**

Was the piece of equipment designed with a safety defect?

It is possible that a piece of playground equipment could be designed with a safety defect that is not addressed by current playground standards, yet injuries occur on a repetitive basis. Standards can be revised based on field data.

Currently, there is no actuarial table with acceptable numbers of serious injuries based on usage. Playground safety literature often refers to single incidents, using phrases such as "a playground incident investigation should include..." or "in the event of a serious injury...." Priority level one injuries should not be occurring regularly or frequently on a piece of playground apparatus.

The CPSI Code of Professional Conduct requires certified playground safety inspectors to "...sustain and advance the integrity, honor and veracity of their certification by...holding the safety of playground users paramount in all professional services." NRPA's CPSI course materials warn that:

Not all playground accidents 'just happen.' They may occur because those who, by proper actions, could have minimized the opportunities and removed the conditions for accidents failed in this responsibility to the children.

Operating a playground or a piece of playground equipment while serious injuries continue to occur would be an abdication of that responsibil-



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ity, and a violation of the CPSI Code of Professional Conduct.

It's better to explain that a piece of playground equipment was taken out of service in the interest of public safety than to argue it was left in service in the interest of expediency.

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