



Policy Brief

Playground Maintenance

Why playground maintenance is critical for keeping children safe

Filling a Gap: Comprehensive Playground Maintenance Technician Training

Each year, nearly a quarter of a million children visit the emergency room as a result of injuries sustained on playgrounds at home, at school, and in parks, while an untold number of less urgent injuries go unreported. Organizations that maintain play structures are left to weigh the proven, fundamental benefits of play against the potential for injury. Reducing risk through proper design, installation, maintenance, and inspection of play structures is, then, a significant responsibility for such organizations.

In response to the needs of parks and recreation agencies that maintain built play structures, the national Playground Maintenance Technician (PMT) Program, managed by the Eppley Institute at Indiana University, teaches the basics of playground maintenance to grounds/maintenance staff. After completing the program, participants should understand and be able to execute the four steps of the

Playground Maintenance Diamond of Care:

- identify safety hazards and needed repairs,
- conduct inspections,
- take corrective actions,
- and document these actions

The two-day PMT program builds the skills necessary to address safety concerns on playgrounds effectively, helping to increase playground safety and reduce liability for agencies. The overall goal of the PMT training is to improve playground safety by reducing the number and severity of injuries.

Regular playground inspection and maintenance is not required by most agencies across the country. According to the National Program for Playground Safety, lawmakers (often urged by the public) in only a few states have passed legislation or regulations related to playground safety. To date, 15 states have adopted guidelines on playground safety, but even among these states, the stringency and enforceability of guidelines varies greatly—that is, in some places, the guidelines are simply suggested rather than required. California has the most comprehensive regulations, insisting that “all new playgrounds open to the public built by a public agency or any other entity shall conform to the playground-related standards set forth by the

American Society for Testing and Materials and the playground-related guidelines set forth by the United States Consumer Product Safety Commission.”

Many schools, parks and recreation departments, and large apartment complexes choose to inspect their playgrounds utilizing a Certified Playground Safety Inspector (CPSI). The CPSI certification, managed by the National Recreation and Park Association, focuses on evaluating a playground’s compliance by judging equipment and surfacing against current ASTM Standards and the CPSC Handbook. Their objective is to compare an agency’s current standard of care to recommended best practices. The CPSI certification can be costly and difficult to obtain and keep current, particularly for frontline maintenance staff. In contrast, the PMT focuses on maintaining the agency’s current standard of care and, over time, incorporating improvements in maintenance

practices in order to improve the overall safety of the playground environment and reduce the number of serious playground injuries. See Table 1 below to see the differences in the CPSI and PMT programs.

The PMT program’s emphasis on equipping maintenance personnel—that is, the agency staff who work on and around agencies’ play equipment every day—with the knowledge and skills needed to maintain safe playgrounds offers unique but obvious benefits. When playground maintenance and monitoring is conducted regularly by well-trained, knowledgeable frontline staff, maintenance issues can be addressed quickly and efficiently, resulting in safer play structures. Modules in the PMT curriculum specifically address reducing hazards on the playground. A hazard is defined as a condition that increases the likelihood of death or injury. A playground inspector’s key responsibility is to identify hazards

located on or within the playground and, to the degree necessary, inform repair staff and/or take corrective action to remove the hazard. Furthermore, it is important that a PMT does not inadvertently create additional hazards when making repairs.

Table 1 provides a comparison of the two training approaches.

Preventable Injuries and Death

The U.S. Consumer Product Safety Commission (CPSC) tracks injuries reported through hospital emergency room departments. A newly released report from the CPSC, based on 2009-2014 data, estimated that there were 1,459,201 injuries during that time span associated with playground equipment. The data are not detailed enough to tell us which pieces of equipment or surfaces cause the most injuries, but they do tell us what kinds of injuries playground users sustain and how serious those injuries are.



Table 1: Differences between the PMT and CPSI Courses

	<i>Playground Maintenance Technician Course</i>	<i>Certified Playground Safety Inspector Course</i>
Content designed for staff responsible for low- and high-frequency inspection and routine maintenance	X	
Content reviews Playground Maintenance Diamond of Care	X	
Comprehensive textbook and student workbook covering the repair and maintenance of equipment listed below	X	
Maintenance of metal, plastic, wood, and concrete equipment	X	
Maintaining unitary and loose-fill surfacing	X	
Maintaining fasteners and connectors	X	X
A systematic approach to conducting repairs and taking equipment out of service	X	X *
Establishing inspection and maintenance programs	X	X
Legal issues of maintaining playgrounds	X	X
Certificate of Completion	X	
Certification		X
Renewal Requirements		X

*The CPSI covers portions of this content.

Preventable Injuries and Death (cont.)

Of the nearly 1.5 million treated injuries the CPSC associated with playground equipment from 2009 to 2014:

- An estimated 885,928 injuries (61 percent) occurred at schools or parks. An additional 203,551 injuries (14 percent) occurred at home playgrounds.
- An estimated 740,618 injuries (51 percent) happened to children who were 5 to 9 years of age. An additional 380,342 injuries (26 percent) happened to children under 5 years of age.
- Most of these injuries were fractures (an estimated 492,001 or 34 percent), followed by contusions or abrasions (251,699 or 17 percent), lacerations (216,421 or 15 percent), and strains or sprains (184,999 or 13 percent).

Training Appropriateness for Promoting Safety in Playgrounds

When deciding what training is appropriate for your staff, it is important to consider your agency’s risk management needs

and desired approach to promoting a culture of safety for playground users. If staff regularly inspect and physically maintain playground equipment/surfacing and make repairs, the PMT is a good fit. If staff are required to complete Compliance Audit Inspections or need to know comprehensive CPSC and ASTM standards, the CPSI is a good fit. For the most comprehensive playground knowledge and skills, both courses are recommended because they complement each other. Each organization with playgrounds has to determine which qualifications are appropriate for its employees in the context of agency responsibilities, capabilities, and budget. For most agencies, a combination of PMT-trained maintenance personnel along with CPSI-trained inspection personnel is best.

Recommendations: Continue to Expand the PMT Program

Since the Eppley Institute began managing the PMT in September 2016, hundreds of maintenance workers across the nation have been trained to maintain and

repair their playgrounds. See Figure 1 below for a map of PMT program locations since September of 2016 and those planned for 2017.

Eighty-one percent of PMT participants do not have their CPSI, suggesting that the PMT is a feasible way to train entry-level staff on the basics of maintenance and repair. Nearly 60% of PMT participants identify their position as maintenance staff, while 25% identify as a supervisor or manager. The program shows real promise in training and preparing maintenance staff with the tools they need to be successful. When asked if they agreed with the statement “Because of the PMT, I feel more confident about managing my playgrounds,” 93% of respondents agreed or strongly agreed.

The Eppley Institute is currently investing in curriculum revisions that include the creation of optional online modules, making learning about maintenance principles even more accessible and affordable.





Figure 1: Playground Maintenance Programs Nationwide

References & Resources

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