How To Improve Public Playground Safety

Managing a public playground is no picnic; it is a lot of work and provides great satisfaction to ensure that children have a fun and safe time. From addressing proper ground cover to equipment maintenance to chromated copper arsenate (CCA) treated wood in playground equipment, much must be done. To increase public playground safety the American Society of Safety Engineers' (ASSE) Public Sector Practice Specialty (PS) group recommends that inspections and documentation of a formal maintenance program; adequate and appropriate ground cover; and, adhering to the recommended lengths of playground equipment use zones be addressed regularly.

ASSE President James "Skipper" Kendrick, CSP, said, 'These recommendations provide guidance in helping cities, towns and schools review and eliminate key potential problems.' Common playground injuries to children include fractures involving wrists, lower arms and elbows.

The ASSE PS group also recommends employees document all inspections and maintenance; develop accident response guidelines and ensure that all safety workers and maintenance workers are aware of these guidelines; ensure that supervisory personnel know who to notify, including parents and other recreational or school personnel, in case of an emergency; and, to contact the playground equipment manufacturer first if any modifications are being considered.

For the most common types of equipment found in playgrounds - swings, slides, merry-go-rounds, teeter-totters, spring rockers and climbing equipment such as arches, domes or overhead horizontal ladders - a buffer area should be set up to separate two age groups using the equipment, ages two through five and children ages six and up. This helps supervising adults recognize the age recommendation and appropriateness of the equipment.

Metal or wooden swing seats should be replaced with soft seats and be set far enough away from other equipment so that children will not be hit by a moving swing. There should be a maximum of two swings per bay on a swing set and each swing should be at least 24 inches apart. Full-bucket seats are recommended for toddlers. As for slides they should be well anchored and have firm handrails and good traction on the steps. No gaps should exist between the slide itself and the platform, and, a bar should be installed at the top of the slide so that children must sit before they slide down.

Chromated copper arsenate (CCA) -treated wood is often found in playground equipment. CCA is used as a chemical preservative to protect wood against rotting due to insects and other microbial agents. The U.S. Consumer Product Safety Commission (CPSC) is considering a petition to ban CCA-treated wood at playgrounds and is working with the Environmental Protection Agency (EPA) to phase out CCA-treated wood, which is classified as a non-hazardous waste. The U.S. Consumer Awareness Program (CAP) provides information on how to handle use and dispose of CCA-treated wood. Information on CCA-treated wood and CAP can be found on the EPA web site at www.epa.gov.

As for other playground equipment, spring-loaded seesaws are best for young children. It is recommended to avoid adjustable seesaws with chains because children can crush their hands under the chains. To keep the seat from hitting the ground, a traditional-type seesaw should have a tire or some other object under the seat. Merry-go-rounds should have good handgrips, and the rotating platform should be level, free of sharp edges and have adequate clearance to prevent crushing or severing limbs, yet close enough to the ground to prevent injury under the equipment.

When it comes to ground cover, the ASSE PS group notes that loose and unitary fill are the two types available to use. Loose fill ground cover includes sand, pea gravel, shredded tires, wood chips and mulch. Unitary surfaces include rubber mats, rubber tiles and poured rubber. Unsuitable ground cover includes grass, dirt, concrete or asphalt. A fall onto concrete from a one-foot height can be fatal, ASSE notes.

When it comes to keeping playground equipment safe, it is recommended that inspections be performed routinely. During inspections one needs to check for items such as scattered debris or exposed tree roots, which should be removed as soon as possible; loose and dangerous hardware on the equipment, such as open 'S' hooks or protruding bolts; for exposed footing and cover immediately within the proper ground cover; decaying wood components or splinters; that surfaces around playground equipment are filled with at least 12 inches of loose fill, such as wood chips, mulch, sand or pea gravel; to make sure that most stationary equipment has at least a six-foot

use zone in all directions; for any openings that can entrap children such as in guardrails or between ladder rungs - as openings should be less than 3.5 inches apart; and, that guardrails surround all elevated platforms and be at least 29 inches high for preschool-age children and 38 inches high for school-age children. These are only some of the items to check during playground inspections. A full review of items to inspect depends on the type of equipment at the playground.

For additional information on playground safety including topics on lead-based paint on equipment; safety recalls; and, the Americans with Disabilities Act (ADA) check the ASSE Public Sector Practice Specialty page at www.asse.org, the U.S. Consumer Product Safety Commission (CPSC) at www.cpsc.gov; the National Playground Safety Institute (NPSI) at www.nrpa.org; the American Society for Testing and Materials (ASTM) at www.astm.org; and, the International Playground Equipment Manufacturers Association (IPEMA) at www.ipema.org.

Formed in 1911, the Des Plaines, IL-based American Society of Safety Engineers is the largest and oldest professional safety organization and has more than 30,000 occupational safety, health and environmental professional members who manage, supervise, research and consult on safety, health, transportation and environmental issues in all industries, government, labor and education.

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