

# Establish an inspection program to help reduce playground injuries.

Each year, nearly 250,000 people visit hospital emergency rooms for injuries associated with playground equipment. On average, the U.S. Consumer Product Safety Commission (CPSC) investigates 7 deaths a year resulting from injuries sustained on playgrounds.

## Risk for playground visitors.

A significant percentage of these playground injuries are related to equipment hazards and falls. The two major contributing factors were a lack of regular inspections/maintenance, and inadequate surfacing material.

## Develop a safety inspection program.

A playground safety inspection program should include a checklist specific to the playground and type of equipment in use. It should have procedures to determine acceptable safety conditions and identify hazards requiring correction. Some key components management should focus on include:

- Training personnel on how to identify safety hazards and on the voluntary standards discussed in the **U.S. CPSC Public Playground Safety Handbook**.
- Inspecting and cleaning equipment regularly to ensure it is in good condition and free of damaged, worn, loose or missing parts. Wood equipment should be free of rot and splinters, plastic should be free of cracks, and metal should be free from rust.
- Identifying and eliminating spaces that could trap children, especially openings in guardrails or between ladder rungs between 3.5 and 9 inches.
- Installing guardrails around elevated surfaces like platforms and ramps, to prevent falls, in accordance with the specifications found in the U.S. Consumer Product Safety Commission's (CPSC) Public Playground Safety Handbook.
- Reviewing equipment for entanglement hazards. Drawstrings on clothing, loose clothing, or shoestrings can become entangled on protrusions, bolts that are not properly placed or tightened, and gaps in slides. Children can catch their fingers or clothing in an open S-hook, resulting in injury or strangulation.
- Remove or protect dangerous hardware, like open S-hooks, protruding bolt ends, sharp points or edges in a manner that will not be compromising to the structural integrity.
- Eliminate gaps at the tops of slides where the slide chute connects with the platform and projections up to 3 inches in diameter should not protrude more than 1/8 inch from the slide.
- Identifying and eliminating tripping hazards. These hazards include exposed concrete footings, anchoring devices, sprinklers, tree stumps, roots, and rocks.
- Posting playground signage and rules that include the age appropriateness of the equipment and that all children must be supervised by an adult.
- Installing fencing to prevent unauthorized use and inspecting fencing for damage, sharp points or edges. Fencing should not diminish supervision of the playground.
- Ensuring adequate fill-depth of surface materials around and under the playground equipment (See Table 1).
- Documenting and retaining records of inspection dates, identified hazards and any corrective actions taken.



## PLAYGROUND SURFACE MATERIAL.

Inadequate playground surfacing material is one of the leading contributing factors of playground injuries.

- Loose-fill surfacing requires frequent inspection and maintenance to ensure surfacing levels never drop below the minimum required fill-depth. Ensure loose-fill materials are free from debris and have not been displaced under heavy use areas such as under swings or at slide exits.
- Protective surfacing should extend at least 6-feet in all directions from play equipment. For swings, be sure surfacing extends twice the height of the suspending bar in the back and front. For example, if the top of the swing set is 10-feet high, the surfacing should extend 20 feet to the back and 20 feet to the front.
- Use the **CPSC Public Playground Safety Handbook** for the recommended minimum fill-depth of 12-inches of loose fill, (e.g., wood chips, mulch, sand, pea gravel or shredded/recycled rubber mulch), or unitary surfacing materials such as mats made of safety-tested rubber or rubber-like materials upon initial installation.



Inappropriate surfacing, according to CPSC’s Public Playground Safety Handbook, includes asphalt, concrete, dirt, grass, CCA treated wood mulch, and carpet not tested to ASTM F1292



Appropriate surfacing, according to CPSC’s Public Playground Safety Handbook includes pea gravel, sand, shredded/recycled rubber mulch, wood mulch (not CCA-treated), wood chips, and any material tested to ASTM F1292, including unitary surfaces, engineered wood fiber, etc.

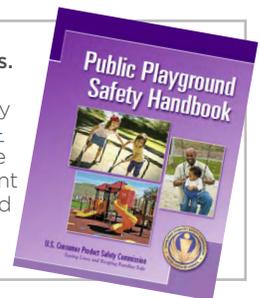
**Table 1 - Minimum Compressed Loose-Fill Surfacing Depths**

Inches Of	Loose-Fill Material	Protects to Fall Height**
6*	Shredded/recycled rubber	10 Feet
9	Sand	4 Feet
9	Pea Gravel	5 Feet
9	Wood Mulch (Non-CCA)	7 Feet
9	Wood Chips	10 Feet

\*Shredded/recycled rubber loose-fill surfacing does not compress in the same manner as other loose-fill materials. However, care should be taken to maintain a constant depth as displacement may still occur.

\*\*Fall height is the vertical distance between the highest designated play surface on a piece of equipment and the protective surfacing beneath it.

**Look to CPSC for additional resources.** The Consumer Product Safety Commission’s Public Playground Safety Handbook, (<https://cpsc.gov/s3fs-public/325.pdf>) can be used as a reference for guidelines on playground equipment design, arrangement, maintenance, and hazard recognition.



Providing solutions to help our members manage risk.®

Additional available resources include:  
 National Program for Playground Safety: [www.playgroundsafety.org](http://www.playgroundsafety.org)  
 Child Care Aware of America: [childcareaware.org](http://childcareaware.org)  
 National Safety Council: [www.nsc.org](http://www.nsc.org)

For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or [LCS@nationwide.com](mailto:LCS@nationwide.com).