

# Tips For Public Playground Safety

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Each year, about 200,000 children are treated in U.S. hospital emergency rooms for playground equipment-related injuries - an estimated 148,000 of these injuries involve public playground equipment and an estimated 51,000 involve home playground equipment. Also, about 15 children die each year as a result of playground equipment-related incidents. Most of the injuries are the result of falls. These are primarily falls to the ground below the equipment, but falls from one piece of equipment to another are also reported. Most of the deaths are due to strangulations or falls.

The U.S. Consumer Product Safety Commission (CPSC) offers consumers these playground safety tips from its *Handbook for Public Playground Safety*.

1. **Protective Surfacing** - Since almost 60% of all injuries are caused by falls to the ground, protective surfacing under and around all playground equipment is the most critical safety factor on playgrounds.

Asphalt and concrete are unacceptable. They do not have any shock absorbing properties. Similarly, grass and turf should not be used. Their ability to absorb shock during a fall can be reduced considerably through wear and environmental conditions.

Certain loose-fill surfacing materials are acceptable, such as the types and depths shown in the table:

**Fall Height In Feet From Which A Life Threatening Head Injury Would Not Be Expected**

Type of Material	6" DEPTH	9" DEPTH	12" DEPTH
Double Shredded Bark Mulch	6	10	11
Wood Chips	6	7	12
Fine Sand	5	5	9
Fine Gravel	6	7	10

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Hotline:  
1-800-638-2772

- Certain manufactured synthetic surfaces also are acceptable; however, test data on shock absorbing performance should be requested from the manufacturer.

**2. Fall Zones** - A fall zone, covered with a protective surfacing material, is essential under and around equipment where a child might fall. This area should be free of other equipment and obstacles onto which a child might fall.

Stationary climbing equipment and slides should have a fall zone extending a minimum of 6' in all directions from the perimeter of the equipment.

Swings should have a fall zone extending a minimum of 6' from the outer edge of the support structure on each side. The fall zone in front and back of the swing should extend out a minimum distance of twice the height of the swing as measured from the ground to the top of the swing support structure.

**3. Swing Spacing** - To prevent injuries from impact with moving swings, swings should not be too close together or too close to support structures. Use the following guide:

\* No more than two swing seats suspended in the same section or bay of the support structure. Use the following clearances for conventional to-fro swings:

- Horizontal distance between adjacent swing seats - at least **24"**.
- Horizontal distance between swing seat and adjacent structural component - at least 30".
- No more than one tire swing suspended in same section or bay of support structure. Distance between the outer-most edge of a tire swing and the adjacent upright of the support structure - at least 30" when the tire is swung to a position closest to the support structure.
- No swings attached to multi-activity equipment.
- No heavy animal swings with rigid metal framework.

**4. Elevated Surfaces** - Platforms more than 30" above the ground should have guardrails to prevent falls.

**5. Potential Head Entrapment Hazards** - In general, openings that are closed on all sides, should be less than 3-1/2" or greater than 9". Openings that are between 3-1/2" and 9" present a head entrapment hazard because they are large enough to permit a child's body to go through, but are too small to permit the head to go through. When children enter such openings, feet first, they may become entrapped by the head and strangle.

**6. Potential Entanglement Hazards** - Open "S" hooks, especially on swings, and any protrusions or equipment components/hardware which may act as hooks or catch-points can catch children's clothing and cause strangulation incidents. Close "S" hooks as tightly as possible and eliminate protrusions or catch-points on playground equipment.

**7. Pinch or Crush Points** - There should be no exposed moving parts which may present a pinching or crushing hazard.

**8. Playground Maintenance** - Playgrounds should be inspected on a regular basis. If any of the following conditions are noted, they should be removed, corrected or repaired immediately to prevent injuries:

- Hardware that is loose or worn, or that has protrusions or projections.
- Exposed equipment footings.

- Scattered debris, litter, rocks, or tree roots.
- Rust and chipped paint on metal components.
- Splinters, large cracks, and decayed wood components.
- Deterioration and corrosion on structural components which connect to the ground.
- Missing or damaged equipment components, such as handholds, guardrails, swing seats.

For more detailed information on playground safety, refer to the CPSC's *Handbook for Public Playground Safety*. To obtain a copy, send a postcard with your name, address, and name of publication to U.S. Consumer Product Safety Commission, Washington, DC 20207.

To report a dangerous product or a product-related injury and for information on CPSC's fax-on-demand service, call **CPSC's** hotline at (800) 638-2772 or **CPSC's** teletypewriter at (800) 638-8270. To order a press release through fax-on-demand, call (301) 504-0051 from the handset of your fax machine and enter the release number. Consumers can obtain releases and recall information via Internet gopher services at [cpsc.gov](http://cpsc.gov) or report product hazards to [info@cpsc.gov](mailto:info@cpsc.gov)

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