



Reducing Risk for YMCAs

12 Playground Hazards

As parents and caregivers, we are responsible for providing safer play opportunities for our children. The National Recreation and Park Association (NRPA) through its National Playground Safety Institute (NPSI) identified 12 leading causes of injury on playgrounds.

Identify any of the following hazards found on your child's playground and notify the owner/operator about the condition of the play area so they may take steps to eliminate the hazards.

1. Improper Protective Surfacing

The surface/ground under or around the playground equipment should be soft enough to cushion a fall. Most loose-fill surfacing must be maintained at a depth of 12 inches, and be free from standing water and debris. Improper materials is the leading cause of playground-related injuries.

ACCEPTABLE SURFACES

- Engineered wood fiber
- Mats
- Poured-in-place rubber
- Sand/pea gravel
- Shredded rubber
- Synthetic/rubber tiles
- Wood chips

UNACCEPTABLE SURFACES

- Blacktop
- Concrete
- Grass
- Packed earth

2. Inadequate Use Zone

The use zone is the area under/around playground equipment where a child may fall. This zone should be covered with protective surfacing material and extend at least six feet in all directions from the edge of stationary play equipment.

SLIDE USE ZONE

Slides less than six feet high: Use zone at bottom of exit area should extend at least six feet from end of slide.

Slides between six feet and eight feet high: Use zone at bottom of exit area should equal height of the platform/entrance to slide.

Maximum exit use zone, regardless of height, is eight feet.

SCHOOL-AGE BELT SWING USE ZONE

Use zone should extend two times the height of the pivot/swing hanger in front and behind the swing seats.

Use zone should extend six feet to the side of the support structure.

Tot swing zones require less use zone: Use zone is two times the vertical distance from bottom of seat to the pivot point/swing hanger in both the front and back of the swing.

3. Protrusion and Entanglement Hazards

These hazards consist of a component or piece of hardware that is capable of impaling or cutting a child if they fell against it. Some are also capable of catching strings/items of clothing worn around a child's neck and could possibly result in strangulation.

Hazards include but are not limited to:

- Bolt ends (extending more than two threads beyond the face of the nut)
- Hardware configurations that form a hook or leave a gap/space between components
- Open S-type hooks
- Rungs/handholds that protrude outward from a support structure

Pay special attention to the areas at the top of slides/sliding devices. Protruding hardware or gaps may act like a hook and catch clothing. Ropes should be anchored securely at both ends and not be capable of forming a loop or noose.

4. Entrapment in Openings

Enclosed openings on playground equipment must be checked for head entrapment hazards. Generally, there should be no opening on playground equipment that measures between 3.5 and 9 inches.

Pay special attention to:

- Openings at tops of slides
- Openings between platforms
- Openings on climbers where distance between rungs may be less than nine inches
- Partially bounded openings (like as seen on top of a picket fence)

5. Insufficient Equipment Spacing

Improper spacing between pieces of play equipment can cause overcrowding in a play area, which results in unsafe play conditions. Each item of play equipment requires a use zone where there is protective surfacing material. These use zones may overlap for certain types of equipment.

- Equipment less than 30 inches high: May overlap use zones with six feet in between
- Equipment more than 30 inches high: Must have nine feet in between each structure
- Swings and merry-go-rounds: Should be located near boundary of playground
- Overlapping use zones prohibited: To-fro area of swings, exit areas of slides, standing rocking equipment, merry-go-rounds

The equipment not allowing overlapping use zones provides room for children to circulate, and prevents the possibility of falling off a structure and striking another.

6. Trip Hazards

These are created by play structure components/items on the playground. The most common trip hazards include:

- Abrupt changes in surface elevation
- Exposed concrete footing
- Rocks
- Tree roots and stumps

7. Lack of Supervision

A play area should be designed so it's easy for a parent/caregiver to observe children at play. Young children are constantly challenging their own abilities, often not being able to recognize potential hazards.

Parents must supervise their children at all times on the playground.

8. Age-Inappropriate Activities

Children's developmental needs vary greatly from age 2 to 12 so it's recommended that areas for preschool-age children (2-5) be separate from areas intended for school-age children (5-12). In an effort to provide a challenging and safe environment for all ages, it's important to ensure that the playground equipment is appropriate for the age of the intended user.

*The U.S. Consumer Product Safety Commission doesn't recommend the following for preschool users: free-standing arch climbers/flexible climbers, chain and cable walls, fulcrum seesaws, log rolls, track rides and vertical sliding poles.

9. Lack of Maintenance

For playgrounds to maintain safe conditions, a program of systematic, preventive maintenance must be present.

- All hardware should be secure.
- All parts should be stable with no signs of loosening.
- Check for signs of vandalism.
- No missing, broken or worn-out components.
- No signs of fatigue or deterioration of any wood, metal or plastic.
- Surfacing materials must be maintained.

10. Crush, Shearing and Sharp Edge Hazards

Components in the play environment should be inspected to make sure there are no sharp edges or points that could penetrate skin. Moving components such as suspension bridges, track rides, merry-go-rounds, seesaws and swings should be checked to ensure there are no moving parts or mechanisms that might cut a child's finger.

11. Platforms With No Guardrails

Elevated surfaces such as platforms, ramps and bridges should have guardrails or barriers to help prevent accidental falls.

Preschool-age children are more at risk for falls and, therefore, equipment intended for this age group should have:

- Guardrails on elevated platforms higher than 20 inches
- Protective barriers on platforms higher than 30 inches

Equipment intended for school-age children should have:

- Guardrails on elevated platforms higher than 30 inches
- Protective barriers on platforms higher than 48 inches

12. Equipment Not Recommended for Public Playgrounds

Accidents associated with the following types of equipment have resulted in the U.S. Consumer Product Safety Commission recommending that they are not to be used on public playgrounds:

- Heavy swings (such as animal figure swings)
- Multiple occupancy/glider-type swings
- Free swinging ropes that may fray/form a loop
- Swinging exercise rings and trapeze bars

Source: National Recreation and Park Association, www.nrpa.org

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