

Fall Zones & Resilient Surfacing

Child Care Learning Centers: 591-1-1-.26(8) – Fall Zones and Surfacing. Climbing and swinging equipment shall have a resilient surface beneath the equipment and the fall zone from such equipment must be adequately maintained by the Center to assure continuing resiliency.

Family Child Care Learning Homes: 290-2-3-.13(2) – Outside grounds and play areas shall be kept clean and free of obvious hazards to the children’s health and safety.

- (c) Climbing and swinging equipment that are not portable shall have a resilient surface beneath the equipment and the fall zone from such equipment, which is adequately maintained by the Family Child Care Learning Home to assure continuing resiliency.

Rule Type: Core Rule

Intent of the Rule

To protect children’s safety and to reduce the risk of injury when children fall from climbers and swings.

Clarification

Over seventy percent of all accidents on playgrounds are from children falling. The surface under and around climbing and swinging equipment can be a major factor in determining the injury-causing potential of a fall. A fall onto a shock-absorbing surface is less likely to cause a serious injury because the surface is yielding. Hard surfacing materials, such as asphalt or concrete, are unsuitable for use under and around playground equipment of any height even if covered with loose-fill shock-absorbing material. Hard surface materials should be removed or mitigated based on layered installation of protective materials according to the Consumer Product Safety Commission, Public Playground Safety Handbook, standard 2.4.2.3.

Equipment used for climbing and swinging should not be placed over, or immediately next to, hard surfaces such as asphalt, concrete, dirt, grass, or flooring covered by carpet or gym mats not intended for use as surfacing for climbing and swinging equipment. This type of equipment must be placed over a resilient surface which is composed of materials that provide a buffer, or shock absorber, that reduces the risk of injury if children accidentally fall from the equipment.

Resilient surface materials may be uniform or loose fill materials. Test data must be obtained from the manufacturer of the material when it is used. The test data should include the American Society for Testing and Materials (ASTM) Standard Specifications and should be maintained on file at the center.

Since the shock-absorbing capability of loose fill materials decreases with repeated impact, continuous care is necessary to maintain the cushioning effect. Loose materials should be raked frequently to prevent them from becoming compacted and to remove hazardous objects. These materials should also be raked daily to fill in areas of wear or displacement (e.g., under swings, bottom of slides, etc.) before children use the equipment. When loose fill materials are used, a depth of at least six inches or more is required for equipment five feet or greater in height, and a depth of at least three inches is required for equipment less than five feet in height.

The “fall zone” from a piece of equipment is the area in which any activity or movement can be expected to take place around the equipment and includes the area under and around the equipment where a child might fall. The

extension of a fall zone is determined by the type of equipment (i.e., stationary climber, slide, or swing) and the entire fall zone area must be covered with protective surfacing material to protect children from injury. Equipment must be arranged so that there is no overlap of fall zones except those which are acceptable based on national safety standards.

Indicators

- ✓ Child care programs must maintain the required depth of resilient surfacing beneath the equipment and within the fall zone(s).
 - Note: If rubber mats are used on top of resilient surface materials, ensure the mats are embedded and at flush level with the resilient surfacing (i.e., no lifted edges, etc.) and do not pose a hazard to children.
 - Reminder: Refer to the U.S. Consumer Product Safety Commission's (CPSC) Public Playground Safety Handbook for additional information about fall zones and resilient surfacing. The handbook can be found at: www.cpsc.gov/s3fs-public/325.pdf.
 - To meet minimal licensing requirements, equipment that is three to five feet tall must have at least three inches of resilient loose fill surfacing or poured surfacing that meets ASTM F1292 test data beneath the equipment and in the fall zones.
 - To meet minimal licensing requirements, equipment that is five feet or taller must have at least six inches of resilient loose fill surfacing or poured surfacing that meets ASTM F1292 test data beneath the equipment and in the fall zones.
 - TIP: Periodically use a garden tiller to thoroughly fluff mulch material for added resiliency.
 - Organizational Tip: Assign a staff person the responsibility of checking the resilient surface material daily to ensure the required depths are always maintained and to ensure that the surfacing material is fluffed and redistributed as needed. A sample playground maintenance checklist can be found on Bright from the Start's website at: <http://dec.al.ga.gov/documents/attachments/PlaygroundChecklist.pdf>.

- ✓ Child care programs must ensure all resilient surfacing is approved by the Department.
 - TIP: Provide at least nine inches of loose fill resilient surface material within the fall zones of all equipment over 18 inches in height to comply with the U.S. Consumer Product Safety Commission's guidelines for best practice.
 - Note: Examples of acceptable loose fill materials include sand, pea gravel, wood chips, wood mulch, and shredded rubber. Uniform materials are rubber mats/surfaces or similar materials held in place by a binder. Resilient surface materials should not include sharp jagged edges, splintered wood, large pieces, etc.



Appropriate Surfacing

- Any material tested to ASTM F1292, including unitary surfaces, engineered wood fiber, etc.
- Pea gravel
- Sand
- Shredded/recycled rubber mulch
- Wood mulch (not CCA-treated)
- Wood chips



Inappropriate Surfacing

- Asphalt
- Carpet not tested to ASTM F1292
- Concrete
- Dirt
- Grass
- CCA treated wood mulch

Resources:

Caring for Our Children, 3rd Edition

<http://cfoc.nrckids.org>