



**What to put under a backyard playground set? Best fall surface for swing sets.**

## **SECTION 4 OF THE CONSUMER PRODUCT SAFETY COMMISSION'S OUTDOOR HOME PLAYGROUND SWING SET SAFETY HANDBOOK**

### **Select Protective Surfacing**

One of the most important things you can do to reduce the likelihood of serious head injuries is to install shock-absorbing protective surfacing under and around swing set equipment. The protective surfacing should be applied to a depth that is suitable for the equipment height in accordance with ASTM Specification F 1292. There are different types of surfacing to choose from; whichever product you select, follow these guidelines:

**NOTE:** Do not install home playground equipment over concrete, asphalt, or any other hard surface. A fall onto a hard surface can result in serious injury to the equipment user. Grass and dirt are not considered protective surfacing because wear and environmental factors can reduce their shock absorbing effectiveness. Carpeting and thin mats are generally not adequate protective surfacing. Ground level equipment – such as a sandbox, activity wall, playhouse or other equipment that has no elevated play surface – does not need any protective surfacing.

### **Loose-Fill Materials:**

- Maintain a minimum depth of 9 inches of loose- fill materials such as wood mulch/chips, engineered wood fiber (EWF), or shredded/recycled rubber mulch for equipment up to 8 feet high; and 9 inches of sand or pea gravel for equipment up to 5 feet high. NOTE: An initial fill level of 12 inches will compress to about a 9- inch depth of surfacing over time. The surfacing will also compact, displace, and settle, and should be periodically refilled to maintain at least a 9- inch depth.
- Use a minimum of 6 inches of protective surfacing for swing sets less than 4 feet in height. If maintained properly, this should be adequate. (At depths less than 6 inches, the protective material is too easily displaced or compacted.)

- Use containment, such as digging out around the perimeter and/or lining the perimeter with landscape edging. Don't forget to account for water drainage. U.S Consumer Product Safety Commission, Washington, D.C., 20207 or call the toll-free hotline :1-800-638-2772
- Check and maintain the depth of the loose-fill surfacing material. To maintain the right amount of loose-fill materials, mark the correct level on play equipment support posts. That way you can easily see when to replenish and/or redistribute the surfacing.
- **Do not** install loose fill surfacing over hard surfaces such as concrete or asphalt.

### **Poured-In-Place Surfaces or Pre-Manufactured Rubber Tiles:**

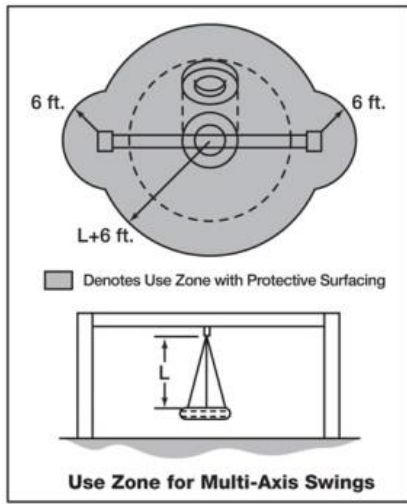
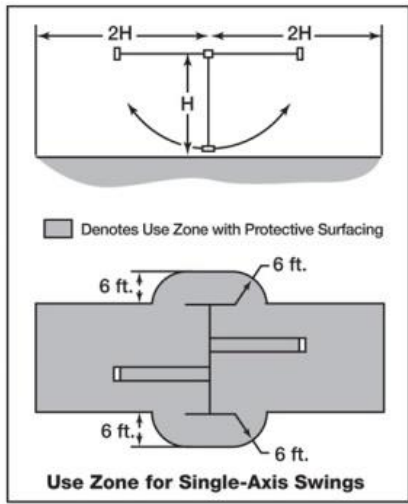
You may be interested in using surfacing other than loose-fill materials – like rubber tiles or poured-in-place surfaces.

- Installations of these surfaces generally require a professional and are not “do-it-yourself” projects.
- Review surface specifications before purchasing this type of surfacing. Ask the installer/manufacture for a report showing that the product has been tested to the following safety standard: ASTM F 1292 Standard Specification for Impact Attenuation of Surfacing Materials within the Use Zone of Swing Set Playground Equipment. This report should show the specific height for which the surface is intended to protect against serious head injury. This height should be equal to or greater than the fall height – vertical distance between a designated play surface (elevated surface for standing, sitting, or climbing) and the protective surfacing below – of your play equipment.
- Check the protective surfacing frequently for wear.

### **Placement**

Proper swing set placement and maintenance of protective surfacing is essential. Be sure to:

- Extend surfacing at least 6 feet from the equipment in all directions.
- For to-fro swings, extend protective surfacing in front of and behind the swing to a distance equal to twice the height of the top bar from which the swing is suspended.
- For tire swings, extend surfacing in a circle whose radius is equal to the height of the suspending chain or rope, plus 6 feet in all directions.



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