



## The higher they are, the harder they will fall!

Each year it is estimated that over 205,850 children in the United States receive treatment in hospital emergency rooms for playground related injuries (Tinsworth & McDonald, 2001). Falls to the surface are the leading cause of these injuries. Approximately, 68% of injuries that occur on public playground equipment involved falls to the surface (Tinsworth & McDonald, 2001). It is important, therefore, that one pays attention not only to the surfacing material used under and around equipment, but also the actual height of the equipment.

### Four reasons to limit the height of playground equipment

#### **FACT ONE:**

##### **Research**

Research has shown that equipment height can double the probability of a child getting injured. A study by Laforest and etal. (2001) conducted in Canada found that equipment over 8 ft. had close to three times the injury rate of equipment under that height. This study reinforced the importance of installing recommended materials, such as sand, beneath play equipment.

Other research by Chalmers and etal. (1996) conducted in New Zealand also found that equipment over 8 ft. had twice the injury rate of equipment under that height.

The National Program for Playground Safety recommends that the height of equipment for pre-school age children be no higher than 6 ft. and the height of equipment for school age children be limited to 8 ft.

#### **FACT TWO:**

##### **There has been no testing performed for equipment over 12 ft. high.**

Current testing for playground surfacing materials has been limited to a height of 12 ft. An Independent Laboratory using the American Society for Testing Materials, ASTM F1292 standard conducts the shock absorbency test. NO surfacing can be considered safe for equipment heights greater than 12 ft. at this time.

Realistically, a 4 ft. child standing on an 8 ft. platform matches the maximum testing height of 12 ft. Think what could happen to a 4 ft. child standing on that 8 ft. platform? This sets up the possibility of the child's head dropping 12 ft.

#### **FACT THREE: Equivalency Test**

Most ceilings are 8 ft. to 10 ft. high. A child standing on a platform more than 8 ft. high is equivalent to standing on the second floor of a building. Would you want your child to step out of a 2nd story building with the surface being concrete, asphalt, dirt or grass?

**FACT FOUR:**

**There is no research to substantiate that raising the height of the equipment enhances play experience.**

What is the difference in the play experience between a child sliding down an 8 ft. high slide versus a child sliding down a 10 ft. high slide? Are the milliseconds of speed worth the known probability of injury as stated in Fact One?

**When it comes to playground safety,  
use your head to STAND TALL,  
not BREAK YOUR FALL!**

**REFERENCE:**

Chalmers, D. J., Marshall, S. W., Langley, J.D., Evans, M. J., Brunton, C. R., Kelly, A. M., & Pickering, A. F. (1996). "Height and surfacing as risk factors for injury in falls from playground equipment: A case-control study. *Injury Prevention*." (2) 98-104.

Laforest, S., Robitaille, Y., Lesage, D., & Dorval, D. (2001). "Surface characteristics, equipment height, and the occurrence and severity of playground injuries." *Injury Prevention*, (7), 35-40.

Tinsworth, D.K. & McDonald, J.E. (2001). "Special study: injuries and deaths associated with children's playground equipment." Washington, D.C.: U. S. Consumer Product Safety Commission.

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