

Playground-Related Injury Hospitalizations Age 0 to 14 Years

Virginia 2000



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Introduction

Each year in the United States, 200,000 preschool and elementary school children visit emergency departments for care of injuries sustained on playground equipment (about 1 injury every 2½ minutes). About 35% of all playground-related injuries are severe (e.g., fractures, internal injuries, concussions, dislocations, amputations, crushes). Public playgrounds account for about 70% of injuries related to playground equipment. In schools, most injuries to students between the ages of 5 and 14 years occur on playgrounds (CDC, January 27, 2000).

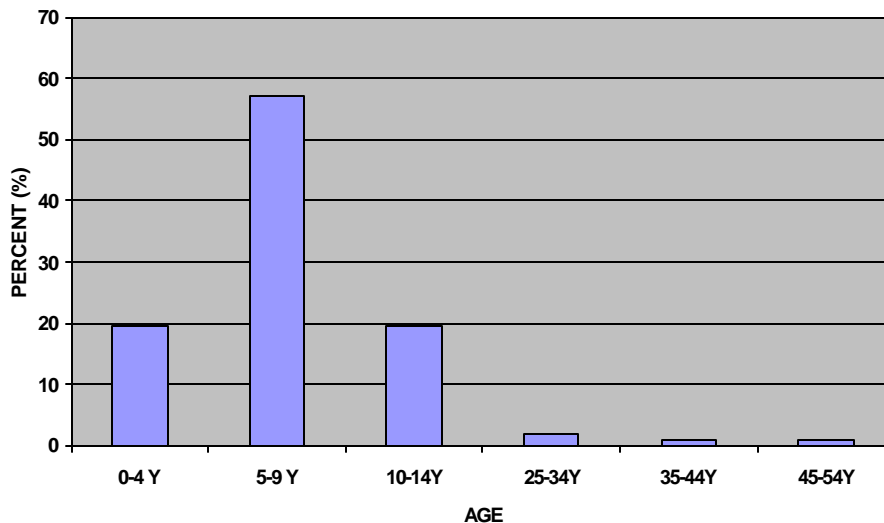
The U.S. Consumer Product Safety Commission (CPSC) also estimates that each year about 8,700 children under 5 years of age are injured with exercise equipment. There are an additional 16,500 injuries per year to children ages 5 to 14. Types of equipment identified in these cases include stationary bicycles, treadmills, and stair climbers. Fractures and even amputations were reported in about 20 percent of exercise equipment related injuries.

In Virginia during the year 2000, 103 persons were admitted to hospitals due to playground related injuries. About 96% of the injured persons were children aged 0 to 14 years. The total charges for playground –related injuries for age group 0 to 14 years was \$486,877 and the average LOS was 2 days (Table 1 and Figure 1).

**TABLE 1: PLAYGROUND-RELATED INJURY HOSPITALIZATIONS
AGE 0 TO 14 YEARS, VIRGINIA 2000**

Age	Frequency	Col (%)
0-4 Y	20	19
5-9 Y	59	57
10-14Y	20	19
25-34Y	2	2
35-44Y	1	1
45-54Y	1	1
Total	103	100

**FIGURE 1: PLAYGROUND-RELATED INJURY HOSPITALIZATIONS,
AGE 0 to 14 YEARS, VIRGINIA 2000**



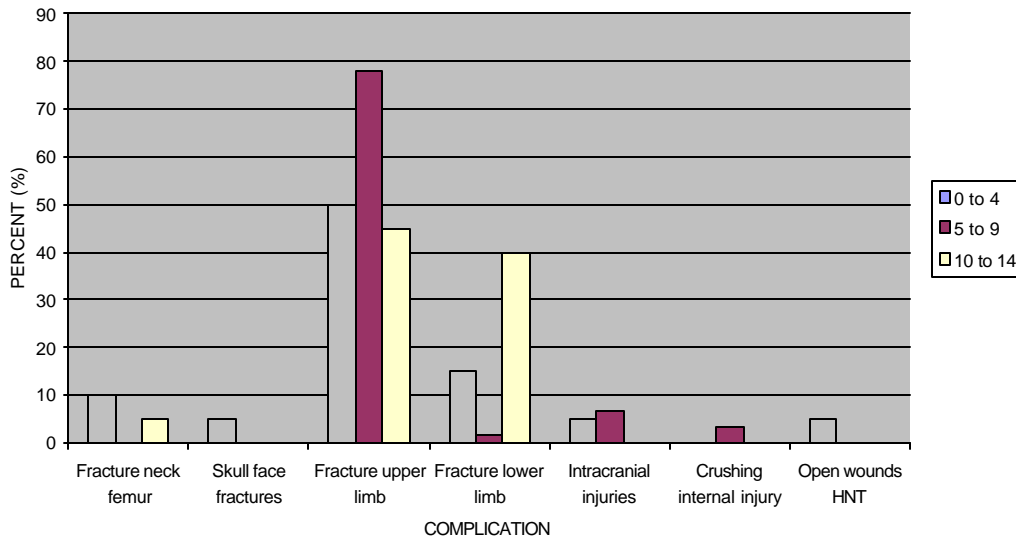
Complications of Playground-related Injuries (Table 2 and Figure 2)

The number of injuries included here reflects only the most serious injuries that required hospital admissions. We have to consider that many of the playground-related injuries are treated either in schools, homes or in outpatient settings. Playground-related injuries of the children aged 0 to 14 resulted in sever complications. About 58% of the injured children suffered from fracture of the upper limbs, 19% suffered fracture of the lower limbs and 5% suffered from fracture of the neck of femur.

TABLE 2: COMPLICATIONS OF PLAYGROUND INJURY HOSPITALIZATIONS, AGE 0 TO 14 YEARS, VIRGINIA 2000

Complication	0-4 Y		5-9 Y		10-14 Y	
	Count	Col %	Count	Col %	Count	Col %
Other nervous D	0	0	1	2	0	0
Intestinal infection	1	5	1	2	0	0
Skin infections	1	5	0	0	0	0
Infective arthritis osteomyelitis	0	0	1	2	0	0
Pathological fracture	0	0	1	2	0	0
Trauma related joint D	0	0	0	0	1	5
Fracture neck femur	2	10	0	0	1	5
Spinal cord injury	0	0	0	0	1	5
Skull face fractures	1	5	0	0	0	0
Fracture upper limb	10	50	46	78	9	45
Fracture lower limb	3	15	1	2	8	40
Other fractures	0	0	1	2	0	0
Intra-cranial injuries	1	5	4	7	0	0
Crushing internal injury	0	0	2	3	0	0
Open wounds HNT	1	5	0	0		0
Abdominal pain	0	0	1	2	0	0
Total	20	100	59	100	20	100

FIGURE 2: COMPLICATIONS OF PLAYGROUND -RELATED INJURIES, AGE 0 TO 14 YEARS, VIRGINIA 2000



Prevention of Playground Injuries Among Children



- Since most of the playground injuries are caused by falls from playground equipment, protective surfacing under and around all playground equipment can reduce the risk of serious head injury.
- Make sure surfaces around playground equipment have at least 12 inches of wood chips, mulch, sand, pea gravel, or mats made of safety-tested rubber or rubber-like materials.
- Adult presence is needed to watch for potential hazards, observe, intercede and facilitate play when necessary. Strings on clothing or ropes used for play can cause accidental strangulation if caught on equipment.
- Make sure play structures more than 30 inches high are spaced at least nine feet apart. Also check that protective surfacing extends at least six feet in all directions from playground equipment.

Resources

Playground Safety, Center for Injury and Violence Prevention, Virginia Department of Health

www.vahealth.org/civp/childinjury/playground.htm

Playground, Eight Steps to the Ultimate

www.playlsi.com/pdf/LSI_EightSteps.pdf

Tips for Home Playground Safety

www.extension.iastate.edu/Publications/PM1632.pdf

How large is the problem of playground-related injuries?

www.cdc.gov/ncipc/factsheets/playgr.htm

Falls are a major cause of brain injuries, Playground Safety

www.biausa.org/falls_factsheet_10-01.pdf

Children And Sports Injuries

www.hands-on-healing.com/children.htm

How Safe is Your Local Playground?

www.consumerfed.org/chcklist.pdf

National Program for Playground Safety

www.uni.edu/playground/resources.html

Supervising Children on the Playground

www.nsc.org/mem/educ/playgd2.htm