Toy-Related Deaths and Injuries Calendar Year 2011

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Executive Summary

In this report, U.S. Consumer Product Safety Commission (CPSC) staff presents the latest available statistics on deaths and emergency department-treated injuries associated with toys. For toy-related deaths and injuries, it is important to note that many of the incidents were associated with, but not necessarily caused by, a toy.

Reported Fatalities in Calendar Year 2011

- CPSC staff received 13 reports of toy-related deaths that occurred in the 2011 calendar year among children younger than 15 years old, of whom 12 victims were under 12 years of age.

- Balloons were associated with 3 (23 percent) of the 13 reported deaths in 2011.

- In 2011, most toy-related deaths were from asphyxiation (7 deaths), and drowning (3 deaths). These patterns are similar to reports for 2010. In 2010, 11 of 19 toy-related deaths were associated with asphyxiation, and 5 deaths were from drowning.

Emergency Department-Treated Injuries in Calendar Year 2011

- In 2011, there were an estimated 262,300 toy-related injuries treated in U.S. hospital emergency departments. The 2011 estimate is not statistically different from the 2010 estimate, which was 251,700.

- There is not a statistically significant trend in the estimated toy-related injuries from 2007 to 2011, for all individuals, children younger than 15 years, children 12 years of age or younger, or children younger than 5 years.

- A plurality (44 percent) of the estimated emergency department-treated injuries is classified as lacerations, contusions, or abrasions. Forty-five percent of the estimated injuries were to the head and face area, the most commonly affected area of the body.

- Males accounted for 154,800 (59 percent) of the estimated toy-related injuries in 2011.

- Ninety-six percent of the emergency department-treated, toy-related injury victims were treated and released.

- Of the 262,300 estimated toy-related, emergency department-treated injuries, an estimated 193,200 (74 percent) happened to children younger than 15 years of age; an estimated 184,100 (70 percent) occurred to children 12 years of age or younger; while an estimated 92,200 (35 percent) happened to children younger than 5 years of age.

- For children 12 years or younger or children younger than 15 years old, nonmotorized scooters continued to be the category of toys associated with the most injuries (25 percent and 26 percent, respectively) in 2011. There is no statistically significant trend in the estimated injuries associated with nonmotorized scooters in the last five years for children in these two age groups.

Introduction

This report provides updated summary information on toy-related fatalities for the years 2009 and 2010, and it gives detailed information on toy-related fatalities for 2011. These fatality counts are based on reports obtained by CPSC staff from the CPSC Injury and Potential Injury Incident file (IPII), Death Certificate File (DTHS), In-Depth Investigations (INDP), and the National Electronic Injury Surveillance System (NEISS). In addition, this report presents the estimated emergency department-treated injuries associated with toys for the 2011 calendar year and the injury estimates from 2007 to 2011, based on the NEISS. In Appendix A, historical estimated toy-related emergency department-treated injuries from 1997 to 2011 are given, along with their 95 percent confidence intervals. Appendix B lists the NEISS product codes used to generate this report.

Toy-Related Deaths[1]

Fatalities for children younger than 15 years of age, as reported to CPSC staff from 2009 to 2011, are summarized in Table 1. The reported death totals for each year are listed at the top of the table, with each year's reported deaths detailed by the type of toy (hazard description) in the rows below. The data from 2009 and 2010 have been updated with new incident reports received by CPSC staff; thus, they differ from reported fatality tabulations detailed in previous memos for those respective years.[2] Toys that are associated with more than one fatality between 2009 and 2011 are listed in the table to highlight the toys (and associated hazards) that historically have posed a greater danger to children. For other types of toys associated with only one fatality across the given years, the information is summarized in the final row of the table. Fatalities are included where a toy was present and, based on statements by investigators, police, family members, or medical examiners, may have played a contributing role in the death.

[1] These fatalities do not represent a sample of known probability of selection. They may not include all of the toy-related deaths that occurred during the time period, in part, because at the time of data extraction, death certificate reporting was 93 percent, 81 percent, and 37 percent complete for 2009, 2010, and 2011, respectively.

[2] Y.Tu, "Toy-Related Deaths and Injuries, Calendar Year 2009," CPSC, November 2010, http://www.cpsc.gov/library/toymemo09.pdf. Y.Tu, "Toy-Related Deaths and Injuries, Calendar Year 2010," CPSC, October 2011, http://www.cpsc.gov/library/toymemo10.pdf.

Table 1: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age 2009–2011[3]

Type of Toy (Hazard)	*2009*[4]		*2010*[4]		2011	
	Children 12 Years of Age or Younger	Children 13 and 14 Years of Age	Children 12 Years of Age or Younger	Children 13 and 14 Years of Age	Children 12 Years of Age or Younger	Children 13 and 14 Years of Age
TOTAL	**17**		**19**		**13**	
Sub Total	**16**	**1**	**19**	**0**	**12**	**1**
Balloons (airway obstruction, aspiration, asphyxiation)	2		5		3	
Tricycles (drowning, motor vehicle involvement)	5				2	
Toy boxes (asphyxiation, entrapment, drowning, hanging)	1		2		1	
Nonmotorized scooters (motor vehicle involvement)		1	1		1	1
Stuffed toys/doll/doll accessory (suffocation, aspiration, strangulation)	2		2			
Balls, other (drowning)			2		1	
Rubber balls/other small ball (airway obstruction, aspiration, choking, asphyxiation)			3			
Powered riding toys (drowning)	2					
Inflatable toys (drowning, fall)			1		1	
Other toys with a single reported fatality in the year (asphyxiation, drowning, gastroesophageal hemorrhage, choking, motor vehicle involvement)	4		3		3	

Source: In-Depth Investigations (INDP), Injury and Potential Injury Incidents (IPII), Death Certificates (DTHS), and the National Electronic Injury Surveillance System (NEISS) from 1/1/2009 to 12/31/2011; CPSC. Data was extracted in July 2012.

[3] Toy-related deaths among children 12 years of age or younger are presented to be consistent with the age definition for children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a) (2).

[4] Two new toy-related deaths were reported to CPSC staff occurring in the 2009 calendar year, as well as in the 2010 calendar year, increasing the number of reported deaths to 17 in 2009 and 19 to 2010.

Table 2 details the fatalities associated with toys for children younger than 15 years of age in 2011 that were reported to CPSC staff. The toy types and associated hazards involved in these reported fatalities are presented in descending order of the frequency of reports. There are three toys in Table 2, each of which was associated with one death, that are included in the last row of Table 1 with "other toys." There were three other types of toys each associated with a single death in 2011; however, because they were associated with other deaths in either 2009 and/or 2010, they are detailed in other rows of Table 1 to highlight the hazard.

As shown in Table 2, seven of the 13 (54 percent) reported toy-related deaths in 2011 involved some form of asphyxiation (choking, hanging, positional asphyxiation, or traumatic asphyxia), and they were associated with balloons, a toy baseball bat, a musical crib toy, and unspecified toys. This hazard pattern is similar to what was reported for 2010.[5] In 2011, nonmotorized scooter and tricycles were associated with four (31 percent) fatalities of children younger than 15 years of age, and involved drowning or motor vehicles.

Table 2: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age 2011

Type of Toys	Children 12 Years of Age or Younger*	Children 13 and 14 Years of Age
TOTAL	**13**	
Sub Total	**12**	**1**
Balloons (choking/aspiration)	3	
Tricycle (drowning)	2	
Nonmotorized scooter (motor vehicle involvement)	1	1
Toy box (hanging)	1	
Ball, other (drowning)	1	
Inflatable toy (fall)	1	
Toy baseball bat (choking/impaction)	1	
Crib musical toy (traumatic asphyxia)	1	
Toys, Not Specified (positional asphyxia)	1	

Source: INDP, IPII, DTHS, and NEISS from 1/1/2011 to 12/31/2011; CPSC. Data was extracted in July 2012.
*Toy-related deaths among children 12 years of age or younger are presented to be consistent with the age definition for children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a) (2).

In 2011, there were 13 reported deaths related to toys. Of the 13 fatalities, five victims were females, and eight were males. The age range for the 13 reported deaths is 8 months to 13 years. The scenario-specific details of some of these incidents are described below.

Balloons

There were three fatalities involving balloons. The victims—2 males and 1 female—between the ages of 8 months to 4 years, died of asphyxiation after aspirating balloons or balloon fragments.

[5] Y. Tu, "Toy-Related Deaths and Injuries, Calendar Year 2010," CPSC, October 2011, http://www.cpsc.gov/library/toymemo10.pdf.

Tricycles

A 4-year old boy was found drowned in a pool and his tricycle was floating in the pool. A 2-year-old girl was found face down in a pool with her tricycle at the bottom of the pool.

Nonmotorized Scooter

There were two deaths associated with nonmotorized scooters. A 7-year-old boy was struck by a vehicle while riding his nonmotorized scooter, and he died of blunt traumatic injury to his chest. A 13-year-old boy was struck by a sport utility vehicle when he was riding his scooter in an intersection of a road. He was taken to a hospital and pronounced dead.

Toy Boxes

A 3-year-old girl was found unresponsive in an upright position at the base of a tree with a jump rope around her neck. The sheriff's department official who investigated the incident believed that the victim was standing on a toy box playing with the jump rope, which had been tied between a "Y-"shaped tree, and the box slipped from underneath the victim and caused her to hang. The girl was 2′11″ and the rope loop was 2′9″ off of the ground. The victim died of asphyxia as a result of hanging.

Ball, Other

A 5-year-old boy drowned when he entered a swimming pool at an apartment complex. His seven-year old brother told the police detective that he saw his brother go into the pool to collect a ball that had gotten away from him "and sink." The detective stated that all interviews with witnesses were very consistent.

Inflatable Toy

A 2-year-old girl fell backward off a hotel balcony from her fifth floor room when she lost her balance trying to retrieve a large inflatable toy hammer that was stuck between the slats of the balcony. She died later in a hospital.

Toy Baseball Bat

A 5-year-old boy choked after the handle of a 21″-long foam-covered toy baseball bat became impacted in his throat, blocking his airway. He died later in a local hospital.

Crib Musical Toy

An 11-month-old boy was found face down in the corner of his crib. An electronic musical toy that was normally attached to the side rail of the crib was detached and laid on top the infant. The victim died of asphyxia.

Toys, Not Specified

A 9-month-old girl was found unresponsive on an adult bed. She was lying on her back with her head and upper torso hanging off the front of the bed into a plastic bin containing numerous toys, which almost filled the bin. She died of positional asphyxia.

Estimated Toy-Related Injuries[6]

In 2011, there were an estimated 262,300 toy-related injuries for all ages treated in U.S. hospital emergency departments. These injuries were related to, but not necessarily caused by, toys. There is not a statistically significant trend in the estimated annual toy-related emergency departed-treated injuries from 2007 to 2011, for all ages.[7] Moreover, for children younger than 15 years of age, children 12 years of age or younger, and children younger than 5 years of age, there is not a statistically significant trend during the same time period. Table 3 displays the annual injury estimates across these four age groups from 2007 to 2011. For more historical estimates, refer to the attached Appendix A.

Table 3: Annual Toy-Related Emergency Department-Treated Injury Estimates 2007–2011

Calendar Year	All Ages	12 Years of Age or Younger*	Younger Than 15 Years of Age	Younger Than 5 Years of Age
2007	232,900	161,200	170,100	80,200
2008	235,300	164,400	172,700	82,300
2009	250,100	177,800	185,900	90,600
2010	251,700	172,000	181,500	89,200
2011	262,300	184,100	193,200	92,200

Source: NEISS, U.S. Consumer Product Safety Commission/EPHA. Estimates are rounded to the nearest 100.
* Toy-related injury estimates among children 12 years of age or younger are presented to be consistent with the age definition for children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a) (2).

Of the 262,300 estimated emergency department-treated injuries associated with toys in 2011, 74 percent (193,200) were sustained by children younger than 15 years of age, 70 percent (184,100) were sustained by children 12 years or younger, and 35 percent (92,200) were sustained by children younger than 5 years of age. Males accounted for 59 percent (154,800) of the estimated treated injuries. Most of the victims (96 percent) were treated and released from the hospital. Three percent of the victims were admitted to the hospital or transferred to another hospital. The remaining 1 percent were held for observation or left without being seen by a doctor.

Figure 1 presents the distribution of annual estimated toy-related emergency department-treated injuries by specific parts of the body where the injury occurred. Forty-five percent of the estimated 262,300 injuries in 2011 (118,100), occurred to the head and face area (head, face, eye, mouth, and ear). The arm, from the shoulder to finger, accounted for 24 percent of the injuries (62,100). The leg (upper leg, lower leg, knee, ankle, foot, and toes) accounted for 18 percent (47,300). The remaining 13 percent of injuries were to other parts of the body not reported above. The individual body parts with the most estimated injuries overall were the face (52,000) and the head (36,800).

[6] The source of these data is the U.S. Consumer Product Commission's National Electronic Injury Surveillance System (NEISS), which is based on a statistical sample of hospital emergency department-treated injuries. For a description of which cases are included in NEISS, how they're coded and an alphabetical listing of products with current product codes, please see the NEISS Coding Manual at: http://www.cpsc.gov/neiss/completemanual.pdf .
[7] Throughout this report, a change (increase/trend) in estimated injuries over the given years is determined to be statistically significant where the p-value for the statistic that tests for trend is less than 0.05.

Figure 1: Distribution of Toy-Related Injury Estimates by Body Regions Injured for All Ages 2011

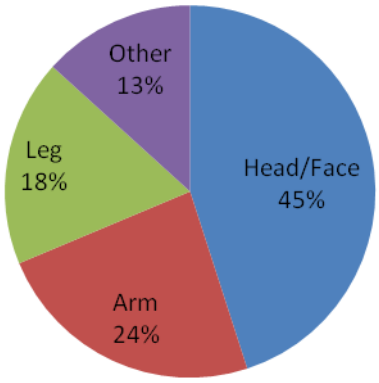
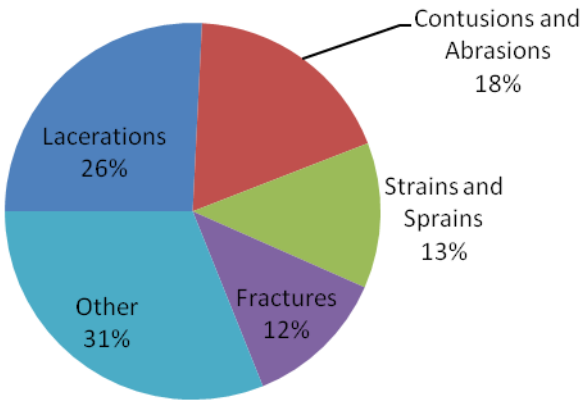


Figure 2 shows the distribution of annual estimated toy-related emergency department-treated injuries by type of injury. In 2011, 26 percent of estimated emergency department-treated injuries were diagnosed as lacerations, while an estimated 18 percent were diagnosed as contusions/abrasions. Strains/sprains represented an estimated 13 percent of injuries, while fractures represented 12 percent. The remaining 31 percent of estimated injuries were spread across several other diagnoses, such as: internal injury, ingestion, dislocation, concussion, and puncture injuries, among others.

Figure 2: Distribution of Toy-Related Injury Estimates by Type of Injuries for All Ages 2011



In 2011, riding toys continued to be associated with more emergency department-treated injuries than any other category of toy for all ages, with 80,100 (31 percent) estimated injuries.[8] Nonmotorized scooters accounted for 72 percent of the estimated injuries related to riding toys for all ages. As shown in Table 4, the top three specifically identified toys that were associated with the most estimated injuries for all ages in 2011 were: nonmotorized scooters (57,400, or 22 percent); toy balls (21,100, or 8 percent); and toy vehicles (14,000, or 5 percent).

Table 4: Toy Categories Associated with the Largest Number of Estimated Emergency Department-Treated Injuries for Different Age Groups
2011

Toy Category	Estimated Injuries (%)			
	All Ages	12 Years of Age or Younger*	Younger Than 15 Years of Age	Younger Than 5 Years of Age‡
Toys, Not Specified	60,000 (23)	38,700 (21)	38,900 (20)	27,700 (30)
Nonmotorized Scooters	57,400 (22)	45,600 (25)	49,300 (26)	7,600 (8)
Toy Balls	21,100 (8)	14,200 (8)	15,700 (8)	4,900 (5)
Toy Vehicles	14,000 (5)	9,200 (5)	9,400 (5)	6,500 (7)

Source: NEISS, CPSC. Estimates are rounded to the nearest 100.
* Toy-related injury estimates among children 12 years of age or younger are presented to be consistent with the age definition for children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a) (2).
‡ Tricycles were associated with an estimated 5,400 (6 percent) injuries for children younger than 5 years of age in 2011.

Patterns for children 12 years or younger and for children younger than 15 years of age in 2011 were similar to those for all individuals.

For children 12 years of age or younger, riding toys, with 66,300 (36 percent) estimated injuries, were associated with more estimated injuries than any other category of toy. Nonmotorized scooters accounted for 69 percent of the estimated injuries related to riding toys. Table 4 displays that the top three toys associated with the most injuries for children 12 years of age or younger were the same as for all ages: nonmotorized scooters (45,600, or 25 percent); toy balls (14,200, or 8 percent); and toy vehicles (9,200, or 5 percent).

For children younger than 15 years of age, riding toys, with 70,200 (36 percent) injuries, were associated with a larger number of estimated injuries than any other category of toy as well. Nonmotorized scooters accounted for 70 percent of the estimated injuries related to riding toys. Table 4 shows that the top three toys associated with the most injuries for children younger than 15 years of age were the same as for all ages: nonmotorized scooters (49,300, or 26 percent); toy balls (15,700, or 8 percent); and toy vehicles (9,400, or 5 percent).

For children younger than 5 years of age, riding toys, with 23,800 (26 percent) estimated injuries, were also associated with more injuries than any other category of toy in 2011. However, nonmotorized

[8] Riding toys include these toy products: nonmotorized scooters; tricycles; unpowered nonwheeled riding toys; children's wagons; powered riding toys; unpowered wheeled riding toys; and unspecified riding toys (excluding bicycles and tricycles).

scooters accounted for only 32 percent of the riding toy-related injuries. As displayed in Table 4, the top three toys associated with the most injuries for children younger than 5 years of age in 2011 were: nonmotorized scooters (7,600, or 8 percent); toy vehicles (6,500, or 7 percent); and tricycles (5,400, or 6 percent). This varies fairly from what were observed for all ages, children younger than 15 years of age, or children 12 years of age or younger.

Table 5 displays the annual estimated emergency department-treated injuries associated with nonmotorized scooters from 2007 to 2011, for children younger than 15 years of age, children 12 years of age or younger, and for children younger than 5 years of age. This table also presents the injury estimates associated with all toys and the percentages of injury estimates related to nonmotorized scooters. In 2011, nonmotorized scooters were associated with the most estimated injuries among specifically identified toys for these three age groups of children. There is not a statistically significant trend in the estimated injuries related to nonmotorized scooters between 2007 and 2011 for any of the three age groups of children.

Table 5: Nonmotorized Scooter-Related Annual Emergency Department-Treated Injury Estimates for Children of Different Age Groups

2007–2011

Calendar Year	Estimated Injuries					
	12 Years of Age or Younger		Younger Than 15 Years of Age		Younger Than 5 Years of Age	
	Injuries Associated with All Toys	Injuries (%) Associated with Nonmotorized Scooters	Injuries Associated with All Toys	Injuries (%) Associated with Nonmotorized Scooters	Injuries Associated with All Toys	Injuries (%) Associated with Nonmotorized Scooters
2007	161,200	37,600 (23)	170,100	41,900 (25)	80,200	5,900 (7)
2008	164,400	40,000 (24)	172,700	42,900 (25)	82,300	7,000 (9)
2009	177,800	45,900 (26)	185,900	49,500 (27)	90,600	8,100 (9)
2010	172,000	39,400 (23)	181,500	42,800 (24)	89,200	5,800 (7)
2011	184,100	45,600 (25)	193,200	49,300 (26)	92,200	7,600 (8)

Source: NEISS, CPSC. Estimates are rounded to the nearest 100.

Toys that are identified but that cannot be placed under already-established toy product codes are likely to be coded under the product code, "Toys, Not Elsewhere Classified." Table 6 below displays the estimated emergency department-treated injuries associated with this product code for all ages, children younger than 15 years of age, children 12 years of age or younger, and children younger than 5 years of age in 2010 and 2011. It shows that the proportions of the estimated injuries related to this product code were very similar across different age groups in 2010 and 2011. In addition, there is not a statistically significant change in the estimated injuries associated with this product code from 2010 to 2011 in any of the four age groups presented in Table 6. Please note that the injury estimates related to the product code, "Toys, Not Elsewhere Classified," in 2010 and 2011 were not comparable to the estimates associated with this category of toys in 2009 or earlier.[9]

[9] Y. Tu, "Toy-Related Deaths and Injuries, Calendar Year 2010," CPSC, October 2011, http://www.cpsc.gov/library/toymemo10.pdf .

Table 6: Annual Emergency Department-Treated Injury Estimates Associated with Product Code, "Toys, Not Elsewhere Classified," for Different Age Groups

2010–2011

Calendar Year	Estimated Injuries (%) Associated with "Toys, Not Elsewhere Classified"			
	All Ages	12 Years of Age or Younger	Younger Than 15 Years of Age	Younger Than 5 Years of Age
2010	8,500 (3)	6,800 (4)	7,000 (4)	3,400 (4)
2011	9,700 (4)	7,600 (4)	7,800 (4)	3,900 (4)

Source: NEISS, CPSC. Estimates are rounded to the nearest 100.

The product code, "Toys, Not Specified," was reinstated in 2010, to classify injuries that were associated with toys, but where the toys involved were not identified specifically in the NEISS injury narratives. Table 7 presents the annual estimated emergency department-treated injuries associated with this product code for all individuals, children younger than 15 years, children 12 years of age or younger, and children younger than 5 years in 2010 and 2011. Table 7 shows that the proportions of the estimated injuries related to this product code were almost the same in 2010 and 2011 for all four age groups. There is not a statistically significant difference in the estimated number of injuries associated with the product code, "Toys, Not Specified," from 2010 to 2011 for any of the four age groups specified in Table 7.

Table 7: Annual Emergency Department-Treated Injury Estimates Associated with Product Code, "Toys, Not Specified," for Different Age Groups

2010–2011

Calendar Year	Estimated Injuries (%) Associated with "Toys, Not Specified"			
	All Ages	12 Years of Age or Younger	Younger Than 15 Years of Age	Younger Than 5 Years of Age
2010	58,200 (23)	35,500 (21)	36,200 (20)	24,800 (28)
2011	60,000 (23)	38,700 (21)	38,900 (20)	27,700 (30)

Source: NEISS, CPSC. Estimates are rounded to the nearest 100.

In 2010, CPSC staff conducted a special study of all injuries that were treated at the emergency departments of NEISS hospitals between July 1, 2010 and December 31, 2010, where the product involved was coded: "Toys, Not Specified." The aim of this study was to identify the actual toys involved and to facilitate the characterization of toys with unknown classifications and the associated hazard patterns. All NEISS cases that were treated during that specific 6-month period and were associated with the product code, "Toys, Not Specified," were assigned for telephone in-depth investigations. During the telephone investigations, telephone interviewers asked the injury victim (or the victim's parent, if the victim was a minor) about the incident scenario, how the injury occurred, what type of toy was involved, the age of the toy, how the toy was obtained, and other questions regarding the characteristics of the toy.

CPSC staff has written a report to summarize the study design, telephone survey results, the estimating methods, and analysis results for this special study.[10]

The special study revealed that 19 percent of the estimated injuries, which were associated with the product code, "Toys, Not Specified," during the special study period, did not involve a toy. Therefore, a 0.81 correction factor was introduced to adjust the injury estimates related to this product code.[10] Applying this correction factor to the toy-related injury estimates in 2011, and further extrapolating the distribution of toys identified from the special study to the injury estimate associated with the product code, "Toys, Not Specified," in 2011, the adjusted toy-related injury estimates and the toy categories that were associated with the largest number of adjusted estimated injuries in 2011 are presented in Table 8 for all ages, children younger than 15 years, children 12 years of age or younger, and children younger than 5 years.

Table 8: Toy-Related Injury Estimates Adjusted for the Correction Factor for Different Age Groups and Toy Categories Associated with the Most Adjusted Estimated Injuries 2011

Toys	Adjusted Estimated Injuries (%)			
	All Ages	12 Years of Age or Younger	Younger Than 15 Years of Age	Younger Than 5 Years of Age*
All Toys	250, 900 (100)	176,800 (100)	185,800 (100)	87,000 (100)
Nonmotorized Scooters	58,000 (23)	46,000 (26)	49,800 (27)	7,900 (9)
Toy Vehicles	24,800 (10)	16,200 (9)	16,500 (9)	11,500 (13)
Toy Balls	21,800 (9)	14,600 (8)	16,100 (9)	5,200 (6)
Dolls, Plush Toys, and Action Figures	13,900 (6)	9,800 (6)	9,800 (5)	7,100 (8)

Source: NEISS, CPSC. Estimates are adjusted for correction factor and rounded to the nearest 100.
* Tricycles were associated with 5,400 (6 percent) of the adjusted estimated toy-related injuries in 2011 for children less than 5 years of age.

Table 8 displays that the nonmotorized scooters, toy vehicles, toy balls, and "dolls, plush toys, and action figures" were associated with the most adjusted estimated injuries in 2011 for all individuals, children younger than 15 years of age, or children 12 years of age or younger. These four categories of toys accounted for nearly half of the adjusted estimated toy-related injuries for these three age groups. For children younger than 5 years of age, toy vehicles, nonmotorized scooters, "dolls, plush toys, and action figures," tricycles, and toy balls were associated with the most adjusted estimated injuries, and they represented 42 percent of the adjusted toy-related injuries in 2011.

It is worth noting that, after applying the correction factor and extrapolating the 2010 special study results to the toy-related injury estimates in 2011, only 5 to 6 percent of the 2011 adjusted toy-related injuries were associated with the product code, "Toys, Not Elsewhere Classified," for the four age groups specified in Table 8. As for the product code, "Toys, Not Specified," just 2 to 3 percent of the adjusted estimated toy-related injuries in 2011 were related to this product code for the four age groups listed in Table 8. Therefore, more than 90 percent of the adjusted toy-related injuries in 2011 could be attributed to established toy product codes.

[10] Y. Tu and S. Garland, "A NEISS Special Study, "Toys, Not Specified": Analysis and Results," CPSC, February 2012.

Appendix A

Estimated Number of Injuries from 1997 through 2011

Table 9 and Figure 3 display the annual emergency department-treated injury estimates associated with toys from 1997 through 2011. Statistically significant trends are observed in the data for all ages, children 12 years or younger, and children younger than 5 years of age from 1997 to 2011. In this same period, while the estimated number of injuries associated with toys for children younger than 15 years of age has also increased, there is not a statistically significant trend.

Table 9 and Figure 3 show large increases in the annual estimated number of injuries for all ages, children younger than 15 years of age, and children 12 years or younger from 1999 to 2001. These increases are attributed primarily to rises in injuries associated with nonmotorized scooters.[11,12,13] During the most recent five years, 2007 to 2011, there is not a statistically significant trend in the estimated number of injuries related to nonmotorized scooters for all ages, children younger than 15 years of age, children 12 years of age or younger, or children younger than 5 years of age (see Table 5).

Compared to the estimated toy-related injuries in 2010, the estimated injuries in 2011 increased for all individuals, children younger than 15 years, children 12 years of or younger, or children younger than 5 years. The increases in the estimated toy-related injuries for children younger than 15 years or children 12 years of age or younger are statistically significant. However, the increases for all individuals or children younger than 5 years are not statistically significant.

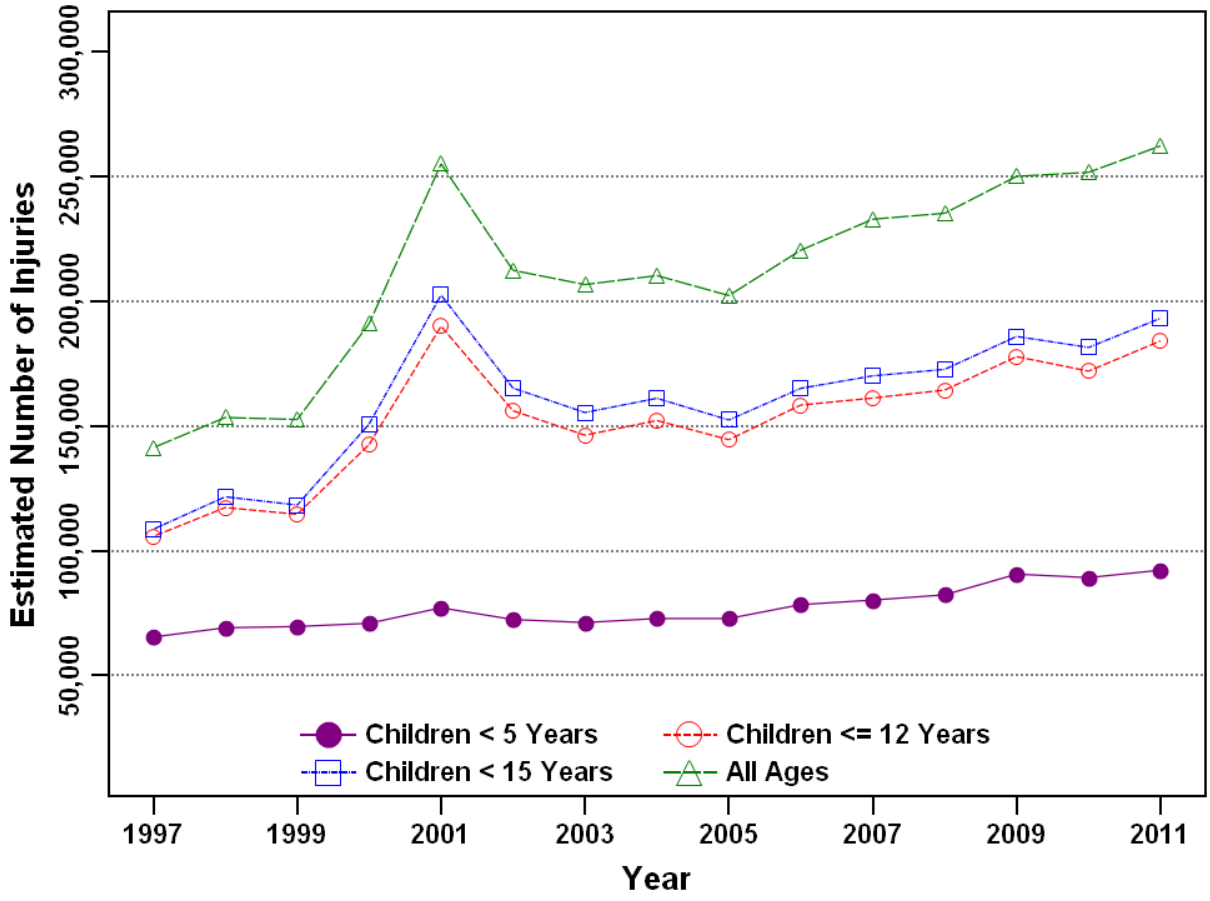
[11] J. McDonald, "Toy-Related Deaths and Injuries, Calendar Year 2000," CPSC, November 2001, http://www.cpsc.gov/library/toydth00.pdf .
[12] J. McDonald, "Toy-Related Deaths and Injuries, Calendar Year 2001," CPSC, October 2002, http://www.cpsc.gov/library/toydth01.pdf .
[13] An analysis performed in August 2012 confirmed that the rises in the estimated nonmotorized scooter-related injuries from 1999 to 2001 was also attributed mostly to the large increase in the estimated toy-related injuries in that time period for children 12 years of age or younger.

Table 9: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups 1997–2011

Calendar Year*	All Ages		Children 12 Years of Age or Younger		Children Younger Than 15 Years of Age		Children Younger Than 5 Years of Age	
	Injury Estimate	95% Confidence Interval	Injury Estimate	95% Confidence Interval	Injury Estimate	95% Confidence Interval	Injury Estimate	95% Confidence Interval
1997	141,300	125,100–157,600	105,700	92,600–118,800	108,600	94,900–122,300	65,400	57,100–73,800
1998	153,400	134,400–172,500	117,300	102,100–132,400	121,600	106,000–137,200	69,100	59,400–78,900
1999	152,600	134,400–170,800	114,600	99,600–129,500	118,300	103,000–133,700	69,600	60,000–79,200
2000	191,000	161,500–220,500	142,600	118,500–166,700	150,800	125,100–176,600	70,900	60,200–81,600
2001	255,100	221,100–289,100	190,000	160,600–219,400	202,500	171,700–233,300	77,100	65,600–88,600
2002	212,400	182,800–242,100	156,100	131,900–180,200	165,200	139,600–190,800	72,400	59,900–84,800
2003	206,700	177,500–235,900	146,300	124,300–168,400	155,400	132,000–178,900	71,200	59,500–82,800
2004	210,300	179,800–240,700	152,200	128,500–176,000	161,100	135,900–186,200	72,800	61,300–84,300
2005	202,300	175,100–229,500	144,500	122,500–166,600	152,400	129,700–175,100	72,800	61,800–83,800
2006	220,500	190,300–250,800	158,400	134,300–182,600	165,100	139,900–190,200	78,400	66,500–90,300
2007	232,900	200,000–265,700	161,200	136,900–185,500	170,100	144,600–195,700	80,200	67,700–92,600
2008	235,300	202,400–268,200	164,400	139,400–189,300	172,700	146,800–198,600	82,300	69,200–95,400
2009	250,100	214,100–286,000	177,800	149,800–205,800	185,900	156,600–215,100	90,600	76,100–105,100
2010	251,700	216,100–287,200	172,000	144,400–199,500	181,500	152,400–210,500	89,200	74,000–104,500
2011	262,300	225,400–299,200	184,100	154,400–213,800	193,200	162,500–223,900	92,200	74,900–109,600

Source: NEISS, CPSC. Estimates are rounded to the nearest 100.
*Tabulated estimates with confidence intervals for 1997–2011 were produced in July 2012.

Figure 3: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups 1997–2011



Appendix B

NEISS Product Codes for Toys as of January 1, 2011

Product Code	Toy Type
1301	Tricycles (Children's)
1309	Kites or Kite String
1310	Pogo Sticks
1314	Rocketry Sets
1319	Metal or Plastic Molding Sets
1322	Children's Play Tents, Play Tunnels, or Other Enclosures
1325	Inflatable Toys (Excluding Balls and Balloons)
1326	Blocks, Stacking Toys, or Pull Toys
1327	Nonwheeled Riding Toys, Unpowered
1328	Wagons (Children's)
1329	Scooters, Unpowered
1330	Powered Riding Toys
1338	Toy Bows or Arrows
1342	Costumes or Masks
1344	Toy Musical Instruments
1345	Building Sets
1346	Clacker Balls
1347	Balloons (Toy)
1349	Stilts
1350	Squeeze or Squeaker Toys
1352	Slingshots or Sling-Propelled Toys
1353	Toy Boxes or Chests
1354	Marbles
1362	Woodburning Kits
1365	Water Toys (Excluding Squeeze/Squeaker Toys and Inner Tubes or Similar Floating Equipment)
1376	Molding Compounds
1381	Toys, Not Elsewhere Classified
1389	Other Toy Weapons (Nonprojectile)

Product Code	Toy Type
1390	Toy Guns, Not Specified
1392	Toy Sports Equipment
1393	Chemistry Sets or Science Kits
1394	Dolls, Plush Toys, and Action Figures
1395	Toys, Not Specified
1398	Wheeled Riding Toys, Unpowered (Excluding Bicycles and Tricycles)
1399	Toy Guns With Projectiles
1550	Infant and Toddler Play Centers (Excluding Jumpers, Bouncers, and Exercisers)
5001	Other Toy Weapons (Projectile)
5005	Riding Toys (Excluding Bicycles and Tricycles), Not Specified
5006	Other Toy Guns
5007	Toy Weapons, Not Specified
5010	Crayons Or Chalk (Excluding Billiard or Pool Chalk)
5011	Book Bags or Back Carriers (Excluding Baby Carriers, Luggage and Camping Equipment)
5013	Toy Make-Up Kits or Cosmetics (Excluding Mirrors)
5015	Toy Caps, Cap Toys, or Cap Guns
5016	Balls, Other or Not Specified
5017	Flying Discs and Boomerangs
5018	Doll Houses and Other Play Scenes
5019	Games or Game Parts (Excluding Marbles and Computer Games)
5020	Pretend Electronics, Tools, Housewares, and Appliances
5021	Toy Vehicles (Excluding Riding Toys)