



Toy-Related Deaths and Injuries Calendar Year 2015

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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 although a toy was associated with many of the incidents, the toy was not necessarily the cause of the death or injury. Additionally, due to delays in death certificate reporting, fatality information for 2013, 2014, and 2015 is not yet complete.

Reported Fatalities in Calendar Year 2015

- CPSC staff received 11 reports of toy-related deaths that occurred in the 2015 calendar year among children younger than 15 years old. Ten of the 11 victims were younger than 12 years of age.
- Riding toys were associated with five (45 percent) of the 11 reported deaths in 2015. All of the riding toy deaths were due to motor vehicle involvement.

Emergency Department-Treated Injuries in Calendar Year 2015

- In 2015, there were an estimated 254,200 toy-related injuries treated in U.S. hospital emergency departments.
- There is not a statistically significant trend in the estimated number of toy-related injuries from 2011 to 2015, for all individuals, children younger than 15 years, children 12 years of age or younger, or children younger than 5 years.
- A plurality (41 percent) of the estimated emergency department-treated injuries are 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 146,500 (58 percent) of the estimated toy-related injuries in 2015.
- Ninety-seven percent of the emergency department-treated, toy-related injury victims were treated and released.
- Of the 254,200 estimated toy-related, emergency department-treated injuries, an estimated 185,500 (73 percent) happened to children younger than 15 years of age; an estimated 175,800 (69 percent) occurred to children 12 years of age or younger; an estimated 88,700 (35 percent) happened to children younger than 5 years of age.
- For children 12 years of age or younger and children younger than 15 years old, nonmotorized scooters continued to be the category of toys associated with the most injuries (24 percent and 25 percent, respectively) in 2015. There is no statistically significant trend in the estimated number of injuries associated with nonmotorized scooters in the last 5 years for children in these two age groups.

Introduction

This report provides updated summary information on toy-related fatalities for the years 2013 and 2014, and gives detailed information on toy-related fatalities for 2015. 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 2015 calendar year and the injury estimates from 2011 to 2015, based on the NEISS. In Appendix A, historical estimated toy-related emergency department-treated injuries from 2001 to 2015 are given, along with their 95 percent confidence intervals. Appendix B lists the NEISS product codes used to generate this report.

Toy-Related Deaths¹

Fatalities of children younger than 15 years of age from 2013 to 2015, as reported to CPSC staff, 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 with a parenthetical description of the hazard in the rows below. Due to delays in death certificate reporting, fatality information for 2013, 2014 and 2015 is not yet complete. The data from 2013 and 2014 have been updated based on six new incident reports received by CPSC staff during 2015—one fatality happened in 2013, and five fatalities occurred in 2014. Thus, the data differ from the reported fatality tabulations detailed in the previous memorandum for the calendar year 2014.² The six fatalities that occurred in 2013 and 2014, but were reported in 2015, involved children 12 years of age or younger. The toys involved in these fatalities were: stuffed plush toys; a small rubber ball; a tricycle; a plush toy snake; a balloon and balloon strings. Toys that are associated with more than one fatality between 2013 and 2015 are listed in Table 1 to highlight the toys (and associated hazards). For other types of toys associated with only one fatality across the given years, the information is summarized in the final row of Table 1. 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 99 percent, 90 percent, and 44 percent complete for 2013, 2014, and 2015, respectively.

² [Y. Tu, "Toy-Related Deaths and Injuries, Calendar Year 2014," CPSC, November 2015.](#)

**Table 1: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age
2013–2015³**

Type of Toy (Hazard)	2013 ⁴		2014 ⁵		2015	
	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	12		16		11	
Sub Total	12	0	16	0	10	1
Nonmotorized scooters (motor vehicle involvement)	1		4		4	
Balloons/balloon strings (asphyxiation, airway obstruction, choking, strangulation)	2		3		1	
Stuffed toys/doll/doll accessory/toy figure (asphyxia, drowning, hanging)	4		2			
Nonmotorized riding toys (fall, motor vehicle involvement)	1		2		1	
Water guns (drowning)			1		2	
Tricycles (drowning, motor vehicle involvement)			2			
Other toys with a single reported fatality in the year (asphyxiation, neck injury/asphyxiation, airway obstruction, choking, drowning, poisoning)	4		2		2	1

Source: INDP, IPII, DTHS, and NEISS from 1/1/2013 to 12/31/2015; CPSC. Data were extracted in August 2016.

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

⁴ One new toy-related death was reported to CPSC staff occurring in 2013 calendar year, increase the number reported deaths to 12 in 2013.

⁵ Five new toy-related deaths were reported to CPSC staff occurring in 2014 calendar year, increasing the number of reported deaths to 16 in 2014.

Table 2 details the fatalities associated with toys for children younger than 15 years of age in 2015 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 (a ball; a squeaky toy; and play modeling compound) in Table 2, which were associated with one death that is included in the last row of Table 1 with “other toys.” There are two other toys (*i.e.*, a balloon and a wheeled riding toy) that were each associated with a single death in 2015; however, because these toys were associated with other deaths in 2013 and/or 2014, they are presented in other rows of Table 1 to highlight the hazard.

As shown in Table 2, five of the 11 reported fatalities (45 percent) of children younger than 15 years of age in 2015 were associated with riding toys and the hazard was motor vehicle involvement. The riding toys involved were nonmotorized scooters and a wheeled riding toy.

Table 2: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age 2015

Type of Toys	Children 12 Years of Age or Younger ^y	Children 13 and 14 Years of Age
TOTAL	11	
Sub Total	10	1
Nonmotorized scooters (motor vehicle involvement)	4	
Water gun (drowning)	2	
Balloon (choking)	1	
Nonmotorized riding toy—wheeled riding toy (motor vehicle involvement)	1	
Ball, other (drowning)	1	
Play modeling compound (poisoning)	1	
Squeaky toy (asphyxiation)		1

Source: INDP, IPII, DTHS, and NEISS from 1/1/2015 to 12/31/2015; CPSC. Data were extracted in August 2016.

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

In 2015, there were 11 reported deaths related to toys involving children. Of the 11 fatalities, three victims were females, and eight were males. The age range for the 11 reported deaths is 20 months to 13 years. The scenario-specific details of some of these incidents are described below.

Nonmotorized Scooters

Four boys—ages 4 years to 8 years—were struck and killed by motor vehicles while riding nonmotorized scooters.

- A 4-year-old boy was crossing an intersection on a scooter when he was hit by a truck. The victim was accompanied by his 16-year-old cousin who tried to pull the victim out of the way. The victim was killed.

- A 5-year-old boy was riding his nonmotorized scooter around his apartment complex. He rode up next to a truck and tried to cut in front of it. The driver of the truck could not see the boy and ran him over. The victim was transported to a hospital where he was pronounced deceased. The cause of death was blunt trauma to the torso.
- Another 5-year-old boy was struck by a minivan while riding a push scooter in a street. The victim died from his injuries shortly after being taken to a hospital.
- An 8-year-old boy was riding a manual push two-wheeled scooter on the roadway in a residential neighborhood. The victim veered off into the middle of the roadway and was hit by a passing vehicle. The victim was taken to a hospital and was pronounced dead. The cause of death was blunt force trauma to the head.

Water Guns

Two boys—ages 2 years to 6 years—drowned while playing with water guns around residential swimming pools.

- A 2-year-old boy drowned in a residential in-ground pool. According to the sheriff's report, the victim was witnessed standing at the far end of the pool next to some trees, filling up a squirt gun with water and spraying the trees. Subsequently, a witness heard the victim's grandmother scream and saw the victim was scooped out of the water. The victim was transported to a local hospital where he was pronounced deceased.
- A 6-year-old boy drowned while playing with a water gun near a residential swimming pool. According to the medical examiner's report, the victim was playing with two 9-year-old friends around a family pool. The children were running around the pool deck squirting each other with squirting water guns. If the water guns were empty, they would refill them in the pool. The victim was last seen swirling the water with his foot at the shallow end of the pool. One of the 9-year-old friends heard a splash suddenly, she looked back and saw the victim face down in the pool. She thought the victim was joking around and did not believe there was a problem. After 3 minutes she did not see any movements. This friend went into the pool and grabbed the victim's arm. She found the victim unresponsive, but she could not get the victim out of the pool. She got out of the pool and went inside to get the victim's 14-year-old brother. The victim's brother was able to get the victim out of the pool. The victim was transported to a local medical center and was then transferred to a children's hospital where he died 5 days later.

Balloon

A 20-month-old boy was at his residence chewing on a deflated balloon. The victim swallowed the balloon and began to choke. The victim was airlifted to a children's hospital where he died 10 days later. The cause of death was hypoxic brain injury preceded by a choking episode, and the manner of death was determined to be accidental.

Nonmotorized Riding Toy—Wheeled Riding Toy

A 6-year-old girl was on a wheeled riding toy that rolled down a residential driveway into the street where she was hit by a Sports Utility Vehicle (SUV). The victim was transported to a local hospital where she was pronounced dead. The victim died of blunt impact injury of the head, neck and torso.

Ball

A 4-year-old boy was found floating in a residential backyard pool. The victim was outside playing with his brother when his ball fell into the pool. The victim used a chair to climb the gate of the pool to retrieve the ball before he fell into the pool. The victim's brother notified their dad, and the dad

pulled the victim out of the pool and ran to a neighbor's house for help. The victim was transported to a hospital where he was pronounced deceased.

Play Modeling Compound

A 6-year-old girl was found unresponsive in her room by her father. Three empty play modeling compound cans were also found in her room. The victim was wearing a Bi-level positive airway pressure (BiPAP) mask at the time for a pre-existing sleep and breathing disorder. The victim had a history of central apnea, seizure disorder and polyphagia. The victim was transported to a local hospital, and there modeling compound was suctioned from her nose and mouth. The victim also had large amount of modeling compound in her stomach. It was reported that the victim had a history of insatiable appetite—would often wake early in the morning to sneak food. This was the first time she had eaten a non-food item. The victim died from complications of hypernatremia due to ingestion of play modeling compound 2 days later in the hospital. Her death was ruled accidental.

Squeaky Toy

A 13-year-old female, who had clinical history of developmental delay, was found lying on the bedroom floor by her father. The father noticed that the victim appeared not to be breathing and her arms and face looked blue. The victim was taken to a local hospital. During life saving measures, a soft squeaky rubber toy—measuring approximately 1.5" in greatest diameter—was reportedly removed from the victim's throat. The victim died in the hospital. The cause of death was asphyxia due to aspiration of foreign body and the death was accidental.

Estimated Toy-Related Injuries⁶

In 2015, there were an estimated 254,200 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 department-treated injuries from 2011 to 2015, for all ages.^{7,8} 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 2011 to 2015. For additional historical estimates, refer to the attached Appendix A.

**Table 3: Annual Toy-Related Emergency Department-Treated Injury Estimates
2011–2015**

Calendar Year	All Ages	Younger Than 15 Years of Age	12 Years of Age or Younger ^y	Younger Than 5 Years of Age
2011	262,300	193,200	184,100	92,200
2012	265,000	192,000	181,600	89,500
2013	256,700	188,400	178,100	83,700
2014	251,800	183,800	173,300	84,400
2015	254,200	185,500	175,800	88,700

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

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

Of the 254,200 estimated emergency department-treated injuries associated with toys in 2015, 73 percent (185,500) were sustained by children younger than 15 years of age; 69 percent (175,800) were sustained by children 12 years or younger; and 35 percent (88,700) were sustained by children younger than 5 years of age. Males accounted for 58 percent (146,500) of the estimated treated injuries. Most of the victims (97 percent) were treated and released from the hospital. Two percent of the victims were admitted to the hospital or transferred to another hospital. The remaining 1 percent were held for observation, left without being seen by a doctor, or were a fatality.

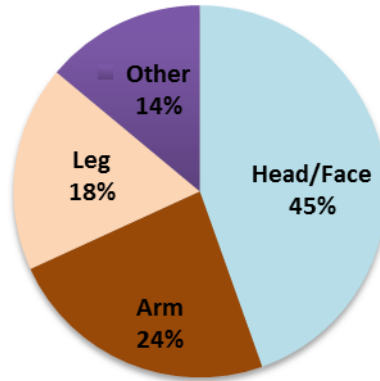
Figure 1 presents the distribution of the annual estimated toy-related emergency department-treated injuries by the specific parts of the body injured. Forty-five percent of the estimated 254,200 injuries in 2015 (113,300), occurred to the head and face area (head, face, eye, mouth, and ear). The arm, from the shoulder to finger, accounted for 24 percent of the injuries (60,000). The leg (upper leg, lower leg, knee, ankle, foot, and toes) accounted for 18 percent (45,400). The remaining 14 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 (46,700) and the head (39,800).

⁶ The source of these data is 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/Global/Neiss_prod/completemanual.pdf.

⁷ T. Schroeder, "Trend Analysis of NEISS Data," CPSC, 2000.

⁸ Throughout this report, a change (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.

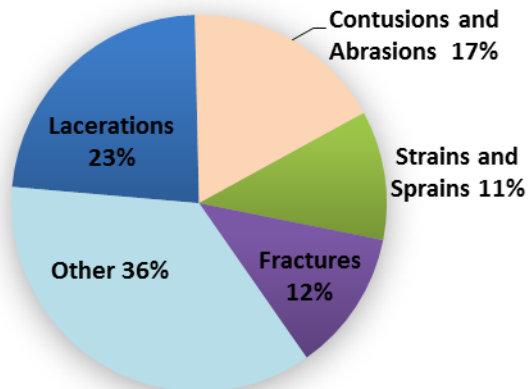
Figure 1: Distribution of Toy-Related Injury Estimates by Body Regions Injured for All Ages 2015
(Total=254,200)



Source: NEISS, U.S. Consumer Product Safety Commission.

Figure 2 shows the distribution of the annual estimated toy-related emergency department-treated injuries by type of injury. In 2015, 23 percent of the estimated emergency department-treated injuries were diagnosed as lacerations, while an estimated 17 percent were diagnosed as contusions/abrasions. Fractures represented an estimated 12 percent of injuries, and strains/sprains represented an estimated 11 percent. The remaining 36 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 2015
(Total=254,200)



Source: NEISS, U.S. Consumer Product Safety Commission. Percentages do not sum to 100 due to rounding.

In 2015, riding toys continued to be associated with more emergency department-treated injuries for all ages than any other category of toy.⁹ Riding toys were associated with 75,400 (30 percent) of the estimated injuries. Nonmotorized scooters accounted for 69 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 2015 were: nonmotorized scooters (52,400, or 21 percent); toy balls (19,500, or 8 percent); and flying discs (12,700, or 5 percent).

**Table 4: Toy Categories Associated with the Largest Number of Estimated Emergency Department-Treated Injuries for Different Age Groups
2015**

Toy Category	Estimated Injuries (%)			
	All Ages [‡]	Younger Than 15 Years of Age	12 Years of Age or Younger [‡]	Younger Than 5 Years of Age
Nonmotorized Scooters	52,400 (21)	45,500 (25)	41,900 (24)	6,200 (7)
Toys, Not Specified	58,400 (23)	38,600 (21)	38,200 (22)	28,800 (32)
Toy Balls	19,500 (8)	13,600 (7)	12,300 (7)	4,500 (5)
Toy Vehicles	11,900 (5)	8,000 (4)	7,900 (5)	5,500 (6)

Source: NEISS, U.S. Consumer Product Safety Commission. 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 a children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a)(2).

[‡] Flying discs were associated with an estimated 12,700 (5 percent) injuries for all ages in 2015.

Patterns for children younger than 15 years of age and for children 12 years of age or younger in 2015 were generally similar to those for all individuals.

For children younger than 15 years of age, riding toys, with 66,500 injuries (36 percent), were also associated with more estimated injuries than any other category of toy. Nonmotorized scooters accounted for 68 percent of the estimated injuries related to riding toys. Table 4 shows that the top three specifically identified toys associated with the most estimated injuries for children younger than 15 years of age were: nonmotorized scooters (45,500, or 25 percent); toy balls (13,600, or 7 percent); and toy vehicles (8,000, or 4 percent).

For children 12 years of age or younger, riding toys, with 62,900 estimated injuries (36 percent), were associated with a larger number of estimated injuries than any other category of toy as well. Nonmotorized scooters accounted for 67 percent of the estimated injuries related to riding toys. Table 4 displays that the top three specifically identified toys associated with the most estimated injuries for children 12 years of age or younger were: nonmotorized scooters (41,900, or 24 percent); toy balls (12,300, or 7 percent); and toy vehicles (7,900, or 5 percent).

For children younger than 5 years of age, riding toys, with 22,200 estimated injuries (25 percent), were also associated with more injuries than any other specified category of toy in 2015. However,

⁹ 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).

nonmotorized scooters accounted for only 28 percent of the riding toy-related injuries. As displayed in Table 4, the top three specifically identified toys associated with the most estimated injuries for children younger than 5 years of age in 2015 were: nonmotorized scooters (6,200, or 7 percent); toy vehicles (5,500, or 6 percent); and toy balls (4,500, or 5 percent). These data vary somewhat from what was observed for all ages, children younger than 15 years of age, and children 12 years of age or younger.

Table 5 displays the annual estimated emergency department-treated injuries associated with nonmotorized scooters from 2011 to 2015, 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 2015, 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 2011 and 2015, 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 2011–2015

Calendar Year	Estimated Injuries					
	Younger Than 15 Years of Age		12 Years of Age or Younger		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
2011	193,200	49,300 (26)	184,100	45,600 (25)	92,200	7,600 (8)
2012	192,000	52,400 (27)	181,600	47,500 (26)	89,500	8,300 (9)
2013	188,400	52,500 (28)	178,100	48,100 (27)	83,700	7,700 (9)
2014	183,800	47,400 (26)	173,300	42,900 (25)	84,400	7,200 (9)
2015	185,500	45,500 (25)	175,800	41,900 (24)	88,700	6,200 (7)

Source: NEISS, U.S. Consumer Product Safety Commission. 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 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 from 2011 to 2015. It shows that the proportions of the estimated injuries related to this product code were very similar across different age groups between 2011 and 2015. In addition, there is not a statistically significant trend in the estimated injuries associated with this product code from 2011 to 2015, 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,” between 2011 and 2015, were not comparable to the estimates associated with this category of toys in 2009 or earlier.¹⁰

¹⁰ Y. Tu, “Toy-Related Deaths and Injuries, Calendar Year 2010,” CPSC, October 2011.

**Table 6: Annual Emergency Department-Treated Injury Estimates Associated with Product Code, “Toys, Not Elsewhere Classified,” for Different Age Groups
2011–2015**

Calendar Year	Estimated Injuries (%) Associated with “Toys, Not Elsewhere Classified”			
	All Ages	Younger Than 15 Years of Age	12 Years of Age or Younger	Younger Than 5 Years of Age
2011	9,700 (4)	7,800 (4)	7,600 (4)	3,900 (4)
2012	6,500 (2)	5,200 (3)	4,900 (3)	2,700 (3)
2013	9,100 (4)	7,500 (4)	7,200 (4)	3,600 (4)
2014	7,600 (3)	6,200 (3)	5,800 (3)	2,800 (3)
2015	7,400 (3)	5,600 (3)	5,400 (3)	2,100 (2)

Source: NEISS, U.S. Consumer Product Safety Commission. 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 from 2011 to 2015. Table 7 shows that the proportions of the estimated injuries related to this product code were very close between 2011 and 2015, for all four age groups. There is not a statistically significant trend in the estimated number of injuries associated with the product code, “Toys, Not Specified,” from 2011 to 2015, 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
2011–2015**

Calendar Year	Estimated Injuries (%) Associated with “Toys, Not Specified”			
	All Ages	Younger Than 15 Years of Age	12 Years of Age or Younger	Younger Than 5 Years of Age
2011	60,000 (23)	38,900 (20)	38,700 (21)	27,700 (30)
2012	57,400 (22)	33,900 (18)	33,500 (18)	24,800 (28)
2013	56,200 (22)	35,400 (19)	34,800 (20)	24,000 (29)
2014	56,400 (22)	35,700 (19)	35,300 (20)	25,600 (30)
2015	58,400 (23)	38,600 (21)	38,200 (22)	28,800 (32)

Source: NEISS, U.S. Consumer Product Safety Commission. 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 caregiver, 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 wrote a report to summarize the study design, telephone survey results, the estimating methods, and analysis results for this special study.¹¹

The special study revealed that 19 percent of the estimated injuries that 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.¹¹ By using this correction factor, it is assumed that the percent of the estimated injuries that are associated with the product code, “Toys, Not Specified,” and that do not involve a toy, does not change from year to year. The validity of this assumption has not been verified. Applying this correction factor to the toy-related injury estimates in 2015, 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 2015, the adjusted toy-related injury estimates and the toy categories that were associated with the largest number of adjusted estimated injuries in 2015 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 2015

Toys	Adjusted Estimated Injuries (%)			
	All Ages	Younger Than 15 Years of Age	12 Years of Age or Younger	Younger Than 5 Years of Age [‡]
All Toys	243,400 (100)	178,300 (100)	168,700 (100)	83,400 (100)
Nonmotorized Scooters	53,000 (22)	45,900 (26)	42,300 (25)	6,500 (8)
Toy Vehicles	22,500 (9)	14,900 (8)	14,800 (9)	10,700 (13)
Toy Balls	20,200 (8)	14,000 (8)	12,700 (8)	4,900 (6)
Dolls, Plush Toys, and Action Figures	13,000 (5)	9,500 (5)	9,300 (6)	6,700 (8)

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are adjusted for correction factor and rounded to the nearest 100.

[‡]Building sets were associated with 5,500 (7 percent) of the adjusted estimated toy-related injuries in 2015 for children younger 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 2015 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, “dolls, plush toys, and action figures,” nonmotorized

¹¹ Y. Tu and S. Garland, “A NEISS Special Study, “Toys, Not Specified”: Analysis and Results,” CPSC, February 2012.

scooters, building sets, and toy balls were associated with the most adjusted estimated injuries, and they represented 41 percent¹² of the adjusted toy-related injuries in 2015.

Notably, after applying the correction factor and extrapolating the 2010 special study results to the toy-related injury estimates in 2015, only 4 percent of the 2015 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 4 percent of the adjusted estimated toy-related injuries in 2015 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 2015 could be attributed to established specified toy product codes.

¹² It may not equal to sum of the percentages presented in Table 8 due to rounding.

Appendix A

Estimated Number of Toy-Related Injuries from 2001 through 2015

Table 9 and Figure 3 display the annual emergency department-treated injury estimates associated with toys from 2001 through 2015. Statistically significant trends are observed in the data for all ages, children younger than 15 years of age, children 12 years or younger, and children younger than 5 years of age from 2001 to 2015.¹³

Table 9 and Figure 3 show large decreases in the annual estimated number of injuries for all ages, children younger than 15 years of age, and children 12 years or younger from 2001 to 2002. These decreases are attributed primarily to reductions in injuries associated with nonmotorized scooters. In 2001, the estimated emergency department-treated injuries associated with nonmotorized scooters for the age groups mentioned previously were 99,800; 85,900; and 78,400, respectively. However, these numbers fell to 59,900; 51,300; and 45,900 in 2002. During the most recent 5 years, 2011 to 2015, 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).

¹³ T. Schroeder, "Trend Analysis of NEISS Data," CPSC, 2000.

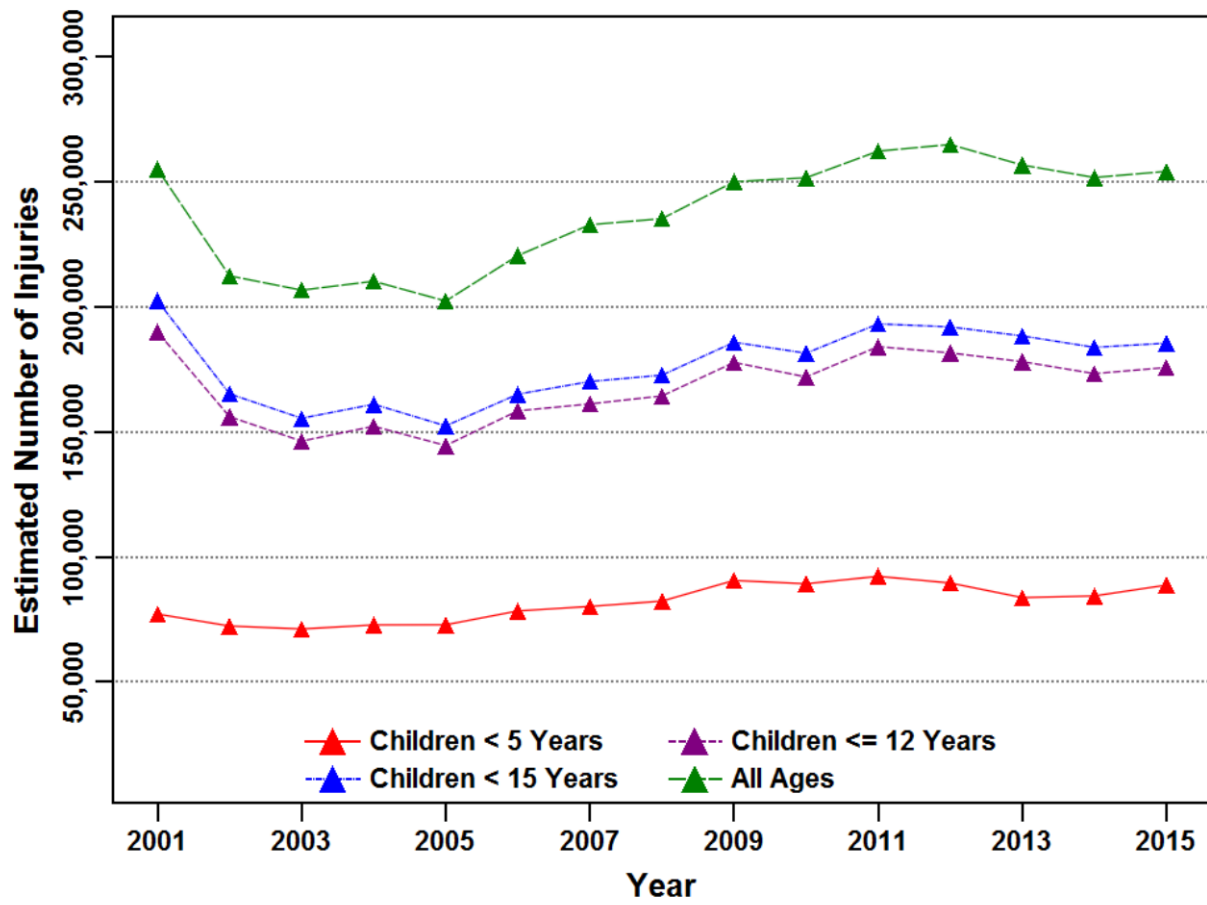
**Table 9: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups
2001–2015**

Calendar Year*	All Ages		Children Younger Than 15 Years of Age		Children 12 Years of Age or Younger		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
2001	255,100	221,100–289,100	202,500	171,700–233,300	190,000	160,600–219,400	77,100	65,600–88,600
2002	212,400	182,800–242,100	165,200	139,600–190,800	156,100	131,900–180,200	72,400	59,900–84,800
2003	206,700	177,500–235,900	155,400	132,000–178,900	146,300	124,300–168,400	71,200	59,500–82,800
2004	210,300	179,800–240,700	161,100	135,900–186,200	152,200	128,500–176,000	72,800	61,300–84,300
2005	202,300	175,100–229,500	152,400	129,700–175,100	144,500	122,500–166,600	72,800	61,800–83,800
2006	220,500	190,300–250,800	165,100	139,900–190,200	158,400	134,300–182,600	78,400	66,500–90,300
2007	232,900	200,000–265,700	170,100	144,600–195,700	161,200	136,900–185,500	80,200	67,700–92,600
2008	235,300	202,400–268,200	172,700	146,800–198,600	164,400	139,400–189,300	82,300	69,200–95,400
2009	250,100	214,100–286,000	185,900	156,600–215,100	177,800	149,800–205,800	90,600	76,100–105,100
2010	251,700	216,100–287,200	181,500	152,400–210,500	172,000	144,400–199,500	89,200	74,000–104,500
2011	262,300	225,400–299,200	193,200	162,500–223,900	184,100	154,400–213,800	92,200	74,900–109,600
2012	265,000	228,600–301,300	192,000	161,400–222,600	181,600	152,300–210,900	89,500	73,300–105,800
2013	256,700	220,600–292,900	188,400	158,100–218,700	178,100	149,000–207,100	83,700	68,200–99,300
2014	251,800	211,300–292,200	183,800	149,500–218,200	173,300	140,700–205,900	84,400	65,900–102,900
2015	254,200	211,100–297,300	185,500	149,500–221,500	175,800	141,100–210,400	88,700	68,400–109,000

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

*Tabulated estimates with confidence intervals for 2001–2015 were produced in August 2016.

Figure 3: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups 2001–2015



Appendix B

NEISS Product Codes for Toys as of January 1, 2015

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)
1390	Toy Guns, Not Specified

Product Code	Toy Type
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)