TAB C

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

Date: April 10, 2002

TO : Barbara Jacobson,
Project Manager for Baby Walkers

THROUGH: Russ Roegner, Ph.D., Division Director RR
Division of Hazard Analysis
Sue Ahmed, Ph.D., Associate Executive Director
Directorate for Epidemiology

FROM : Debra Sweet dls
Division of Hazard Analysis

SUBJECT : Baby Walker-Related Deaths and Injuries

I. Background

In 1992, the U.S. Consumer Product Safety Commission (CPSC) was petitioned to ban mobile baby walkers due to the risk of injury associated with these products. Although the petition to ban walkers was denied, CPSC continued work to address baby walker hazards, particularly falls down stairs. In 1994, CPSC initiated a proceeding to develop a mandatory standard for baby walkers, with an ANPR, while continuing to work with baby walker manufacturers to strengthen existing voluntary safety standards for the products. These efforts concentrated on reducing injuries from the leading hazard scenario associated with baby walkers -- falls down stairs. In 1997, a revised ASTM voluntary standard for baby walkers was published that addressed stair-fall hazards.

II. Incident Data

Deaths

CPSC staff is aware of 39 deaths resulting from incidents with baby walkers since January 1973. Reports of deaths are not complete for 1999 through March 2002.

The most frequent cause of injury resulting in death is falls down stairs. Twelve children died of injuries received when they fell down the stairs in a baby walker. The two most recent deaths from stair-fall occurred in May and June of 2001. These two deaths are the first reports of deaths from falls down stairs since 1997. Both of the walkers involved in these two incidents were old-style walkers, manufactured before the inclusion of the stair-fall test requirements in the voluntary standard. Drowning is the second leading cause of death related to baby walkers. Nine children have died since 1973 after accessing a body of water while in their walker. Five of the children drowned in a pool, three of the children drowned in a toilet and one child drowned

in a bucket. Other causes of death included walker tip-overs or falls from the walker, suffocation or asphyxia, and burns.

NEISS Injury Estimates

Based on data from CPSC's National Electronic Injury Surveillance System (NEISS), there were an estimated 7,400 baby walker-related injuries to children under 15 months of age treated in U.S. hospital emergency rooms in 2000. In contrast, there were an estimated 20,100 injuries in 1995[1]. The data reflect a 63% decrease in baby walker-related injuries in this 6-year time period. Based on a preliminary review, approximately 5,000 children less than 15 months of age were treated for baby walker-related injuries in 2001. This number may change when the 2001 NEISS estimates are finalized.

The following table (Table 1) pairs the injuries to the number of U.S live births, resulting in total baby walker-related injuries per 1,000 live births. The number of live births allows for a relative comparison of injuries from year to year, by pairing the fluctuation in injuries to the fluctuation in live births (the best estimate of the number of children under 15 months of age).

Table 1
Baby Walker-Related Injuries by Year: 1995 - 2000, Children Under 15 Months of Age

Year	Estimate of Injuries[a]	U.S. Live Births[b]	Injuries per 1000 Live Births
1995	20,100	3,899,589	5.2
1996	16,100	3,891,494	4.1
1997	14,300	3,880,894	3.7
1998	11,000	3,941,553	2.8
1999	8,800	3,959,417	2.2
2000	7,400	4,058,814	1.8

[a] Source: National Electronic Injury Surveillance System. The estimates for 1995 and 1996 have been adjusted for 1997 changes in the NEISS sampling frame.
[b] Source: National Center for Health Statistics.

The data show a 65% decrease in the number of injuries per 1,000 U.S. live births from 1995 to 2000, from 5.2 to 1.8. There is a parallel between the decrease in injury rate (65%) and the decrease in estimated injuries (63%) even though the number of live births has increased 4.1% from 1995 to 2000.

One plausible explanation for the decrease in baby walker injuries could be the introduction of baby walker alternatives to the juvenile products market. This would imply that parents are replacing the purchase of traditional, mobile baby walkers with the purchase and use of these stationary baby walker alternatives. If this were the case and given that the number of children has remained constant, then it would be expected that there would be a decrease in baby

[1] 1995 was the first full year after the Commission and industry began revisions to the voluntary standard that addressed stair-falls. The revised voluntary standard, with performance requirements to address stair-falls, was approved in October 1996 and published in 1997.

walker sales in the U.S. over this period of time. Table 2 shows estimated injuries with the estimated baby walker sales from 1995 through 1999. In 1995, there were an estimated 1,367,300 baby walkers sold in the U.S. The 1999 estimated sales figures (the most recent data available) show an 8.6% decrease from 1995 to 1,249,300 baby walkers in 1999. Compared to the 56% decrease in injuries from 1995 to 1999 the drop in sales is too small to account for the total decrease in injuries.

Table 2
Baby Walker Estimated Injuries and Unit Sales: 1995-1999

Year	Estimated Injuries	Estimated Unit Sales[a]
1995	20,100	1,367,300
1996	16,100	1,361,200
1997	14,300	1,309,200
1998	11,000	1,301,200
1999	8,800	1,249,300

[a] The baby walker estimated unit sales were developed by CPSC's Directorate for Economic Analysis.

Hazard Patterns

Stair-falls and tip-overs have remained the top two leading causes of baby walker-related injuries throughout the years. Historically, burns have been the third leading cause of baby walker-related injures; however, this changed in 2000. The third leading cause of injury in 2000 is contact with the walker. Contact with the walker includes incidents in which the child fell onto or against the walker while outside of the walker or the child hit or pushed against (contacted) the walker while seated inside the walker. Table 3 gives a more detailed account of hazard patterns and injury estimates. In 2000, approximately 67% of the baby walker-related injuries resulted from falls down stairs or from one level to another. About 18% of the injuries occurred when the walker tipped or flipped over or the victim fell out of the walker. The third leading cause of injury, about 5%, was contact with the walker.

Table 3
Hazard Patterns of Baby Walker-Related Injuries - 2000
Children Under 15 Months of Age

Hazard Type	Estimate of Injuries[2]		Percent of Total Injuries
Fall down stairs or between levels	4,963	(n=185)	66.8%
Flip/Tip-Over or Fall Out of Walker	1,363	(n=45)	18.3%
Contact with Walker	395	(n=8)	5.3%
Burn	196	(n=7)	2.6%
Other	518	(n=21)	7.0%

In 2000, an estimated 4,963 children under 15-months-old visited an emergency room as a result of a fall down stairs or between two levels while the child was in his/her baby walker. Minor injuries accounted for 64% of the stair- or level-fall injury diagnoses, while the more severe injuries comprised 27% of the stair- or level-fall injuries. Almost all of the stair-fall injuries, 96%, involved the head and face area.

III. Baby Walker Special Studies

In order to identify the types of walkers involved in the recent injuries, especially those involved in stair-fall or level-fall incidents, CPSC staff conducted studies of incidents reported through NEISS hospital emergency rooms in 1999, 2000, and 2001. The results of these studies aid in evaluating the adequacy of the current voluntary standard in terms of reducing stair-fall hazards.

1999-2000 Special Study

In the first study, all baby walker-related injuries to children under 15-months-old that were treated in NEISS emergency rooms from November 1, 1999 through April 30, 2000 were followed up by telephone investigations for details about the incident and the product involved. In the case of a stair-fall or level-fall incident in which it appeared a "new-style" walker was involved, an on-site in-depth investigation was performed to better understand the circumstances of the incident and to collect the baby walker to test in CPSC's laboratory.

During the six month study period, an estimated 3,454 children under 15-months-old were treated in U.S. hospital emergency rooms for injuries associated with baby walkers. Fourteen percent of the estimated injuries (eight of the cases) were associated with new-style baby walkers.

[2] Several estimates in this table and throughout the remainder of the document are based on small sample sizes of victims brought into emergency rooms and are likely associated with substantial variability.

The top three hazard scenarios seen during the special study were 1) stair-falls or level-falls, 2) flip- or tip-overs or falls from the walker (often interchangeable language for similar scenario) and 3) burns. Of the eight cases that involved a new-style walker, six new-style walkers were involved in stair-fall cases, one new-style walker was involved in a tip-over incident, and one child fell against the new-style walker while holding onto the product and standing next to it.

An estimated 2,415 children under 15-months-old were treated in U.S. hospital emergency rooms for stair-fall and level-fall incidents involving baby walkers during the study period (70% of total baby walker-related injuries during the study). Of these injuries, 75% were caused by incidents with old-style baby walkers (based on 56 cases), 12% were caused by incidents with new-style baby walkers (based on 6 cases) and in the remaining 13% of the injuries the style of the walker was unknown (based on 10 cases).

The 12% of injuries involving new-style baby walkers are of main concern. This estimate was produced by a total of six incidents. In two of the reported incidents, the child in the baby walker went to the edge of the stair and picked the walker up to cross a threshold or to keep moving when the friction strips on the base of the walker stopped the child initially. The staff did not collect the walkers involved in these incidents because this type of scenario is not addressed by the standard. The third incident involved a damaged baby walker traveling across an uneven surface. This walker was not available for collection.

For the remaining three incidents involving new-style walkers, one walker was available for collection by the CPSC investigator. The walker had not been used since the incident and was in good condition. CPSC's Directorate for Laboratory Sciences conducted the voluntary standard performance tests on this walker. The walker passed the performance tests. It is unknown as to why the walker went down the stairs during the incident.

2000-2001 Special Study

During the initial study, some of the children involved in stair-fall incidents with new-style baby walkers overcame the safety mechanism of the walker. The children lifted the walkers, thus disabling the friction strips on the underside of the base of the walker. To better understand how frequently these situations were occurring and to try to identify any other type of scenario with new-style baby walkers, staff collected data on stair- or level-fall incidents for an additional 6 months.

From November 1, 2000 through April 30, 2001, staff conducted telephone investigations on cases in which a child less than 15-months-old was treated in a NEISS hospital emergency room for an injury from a stair-fall in a walker. The telephone investigation questionnaire contained questions only to identify whether the walker was a new-style walker or an old-style walker. For incidents that involved new-style walkers or if the walker style was unknown (and the walker was still available), an on-site investigation was conducted. During the on-site investigation, more specific details of the incident were collected, pictures taken, and the walker was collected for testing at CPSC's laboratory.

From November 2000 through April 2001, there were an estimated 2,296 children under 15-months-old treated in U.S. hospital emergency rooms for injuries associated with baby walkers. Sixty percent of these cases treated in the emergency rooms resulted from a stair-fall or a fall from one level to another (an estimated 1,364 incidents).

Fourteen percent of the stair-fall incidents involved new-style baby walkers (based on 5 cases), 70% involved old-style baby walkers (based on 14 cases), and the type of baby walker involved in the remaining 16% of the incidents treated in emergency rooms was unknown (based on 7 cases).

The 14% of injuries involving new-style baby walkers going down stairs was produced by a total of five incidents. In three of the cases involving new-style walkers, the follow-up on-site investigation was terminated after repeated failures in contacting the victims' families. Therefore the only information available about the incident was that which was provided during the telephone investigation. The children involved in all three incidents were stated to have moved to the stairways and fallen down 8 or 9 stairs. Two of these incidents were not witnessed; the third incident was witnessed and the parent stated the child pushed through a safety gate, which was not secured in place, and fell down the stairs.

On-site investigations were completed in two of the five stair-fall incidents involving new-style baby walkers. In one incident the child fell down outside porch steps. A guardian stated the child was able to lift the walker up to get over obstacles in his path, but it was unknown if the child lifted the walker during this incident. During the final incident, the rear brakes were engaged on the walker, but the child was still able to move the walker. The child moved to the edge of a porch and fell over the edge. The friction strips caught the child at this point, but he leaned over the side of the walker and the walker fell from the porch.

IV. Summary of New-Style Walker Incidents

Since the voluntary standard has been in place, new-style baby walkers have entered the market and are helping to reduce injuries and deaths. There are no reports of deaths involving new-style baby walkers. Although deaths from stair-falls have been reported since the voluntary standard was published, these involved older walkers that were not manufactured to stop at the top of a stairway.

Injuries are continuing to decline as new-style walkers replace older walkers in the home. Since 1995, when the juvenile products industry and CPSC began work on the voluntary standard to address stair-fall injuries, baby walker injuries have dropped 63%. This drop cannot be attributed to a decrease in births over the six-year time period, nor can it be attributed to a drop in sales of baby walkers.

The special studies performed from 1999 through 2001 indicate that less than 15% of baby walker stair-fall injuries treated in emergency rooms during each study involved new-style baby walkers. This shows that while children are injured with baby walkers, the majority of the incidents involve walkers that do not meet the new voluntary standard to prevent stair-fall incidents. Over the two six-month studies, 11 children were treated for injuries involving new-style walkers that went down the stairs. Special circumstances may have been involved in some of these incidents. Detailed descriptions of all 11 incidents involving new-style baby walkers, along with some pictures, can be found in Appendix A.

Appendix A – New-Style Walker Incidents in the 1999-2000 Special Study

The following list of six incidents are those incidents in which a "new-style" baby walker was involved in a fall down stairs or a fall down a level change. The information is from either the in-depth investigation or the telephone investigation performed during the special study. Pictures accompany the incident information when available.

IDI 991115HEP7522

The incident occurred on November 7, 1999. The victim was male and was 9-months-old and 20 pounds at the time of the incident. The victim's father, who witnessed the incident, provided the details during an on-site investigation. The baby walker was not collected as a sample as the parents gave it to another family to use.

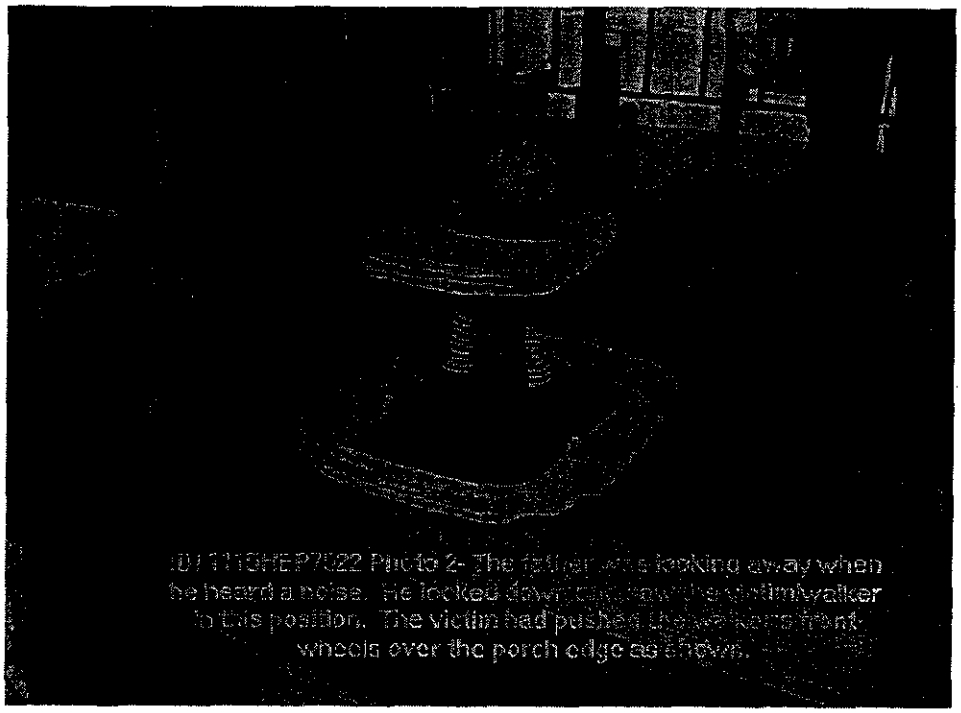
The victim used the walker both inside the mobile home in which he lived and on the front wood porch of the home, for approximately 30 minutes, two or three times a day. The baby walker was purchased new from a local retail store; the model number and manufacturer name show that the walker is a "new-style" walker, manufactured to meet the current ASTM voluntary standard. The manufacture date on the baby walker was February 1999.

On the afternoon of November 7, a sunny and dry day, the victim, his father, and a sibling were outside of the family home. The victim was placed in the baby walker on the porch of the home, where the father was also standing and watching both children. After approximately 20 minutes, the victim's father was watching the victim's sibling and heard a noise from the direction of the victim. He turned to look at the victim and found him seated in the baby walker with the two front wheels of the baby walker hanging off of the top step of the porch. The victim and walker were not moving at this time. A photo of the indicated position is below (Photograph 1). The father went to the victim to put him back on the porch; however, before the father reached the child, the victim placed both hands on the side of the walker tray, lifted the walker up and moved forward. The victim and walker tumbled down 3 wood steps onto the wooden platform below. A picture of the end position is also shown below (Photograph 2).

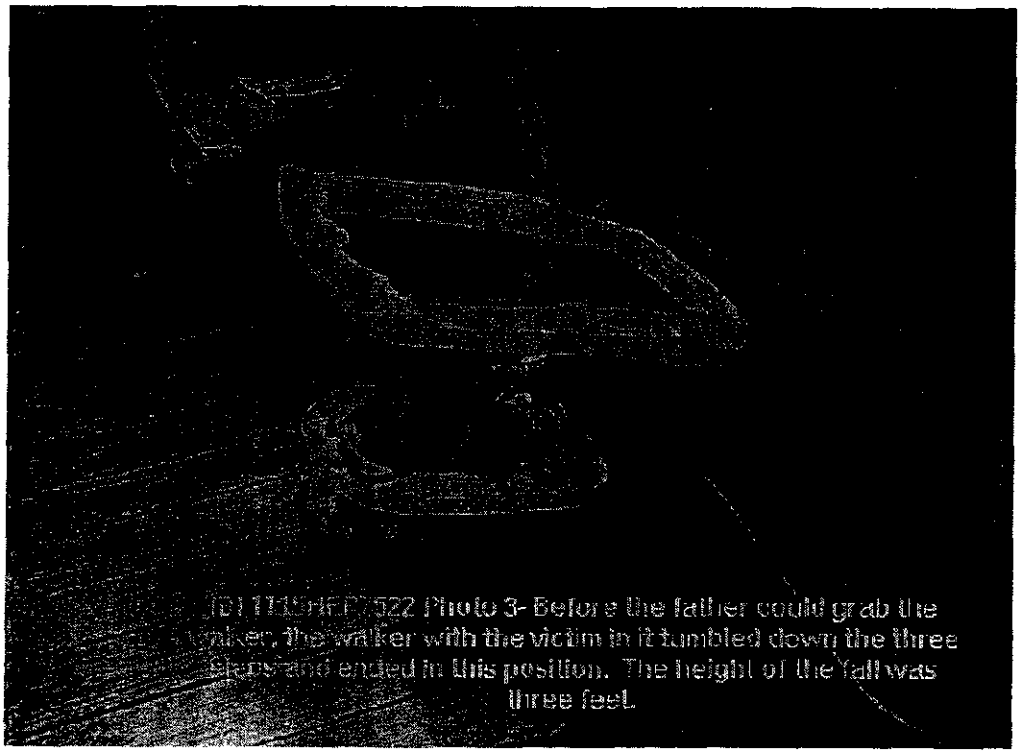
The victim received a bloody upper lip and nose. He was taken to the emergency room and treated for lacerations to his face. He has fully recovered and does not have permanent injuries.

IMPORTANT** The baby walker performed as intended and designed. When the two front wheels went over the edge of the step, the friction strips on the underside of the base of the walker engaged and ceased movement of the walker. This action prevented the victim from falling down the stairs. However, the child disengaged the friction strips when he picked the walker up by the tray and moved forward and down the stairs.

Photograph 1



Photograph 2



IDI 000229HEP7063

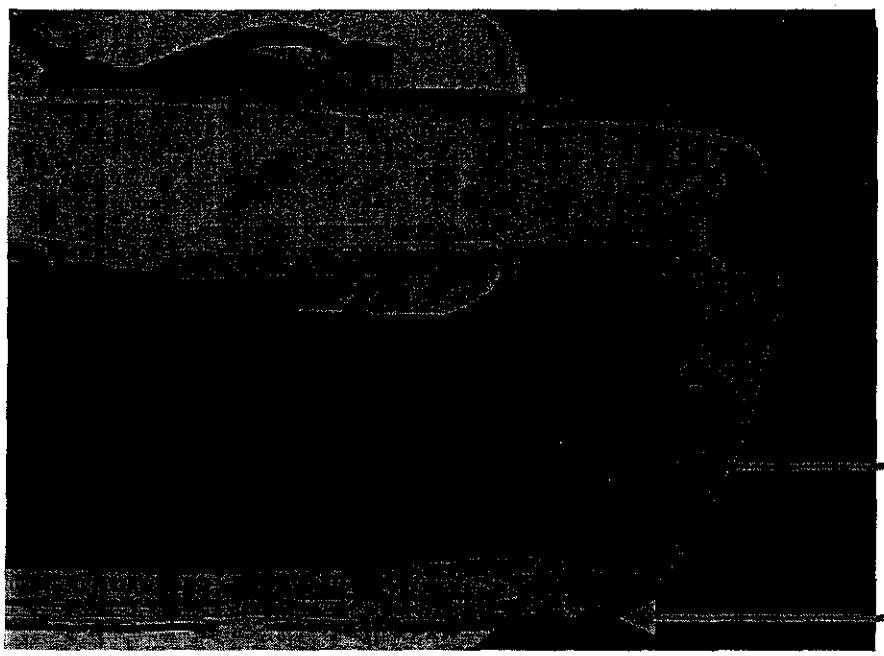
The incident occurred on February 23, 2000. The victim was a female who was 12-months-old and weighed 22 pounds at the time of the incident. The mother, who did not witness the incident, provided information over the phone because she was not available during the on-site visit. The victim's aunt and owner of the home aided the on-site visit.

The victim lives at the home where the incident occurred. The baby walker was received as a hand-me-down in 1999. The manufacturer name and model number verify that the walker was a "new-style" walker. The walker was manufactured to meet the current ASTM voluntary standard. The baby walker was damaged at the time of the on-site visit -- the baby walker was missing a front wheel (one of three total wheels on the walker) and the front friction strip was not on the product. A photograph is included (Photograph 3).

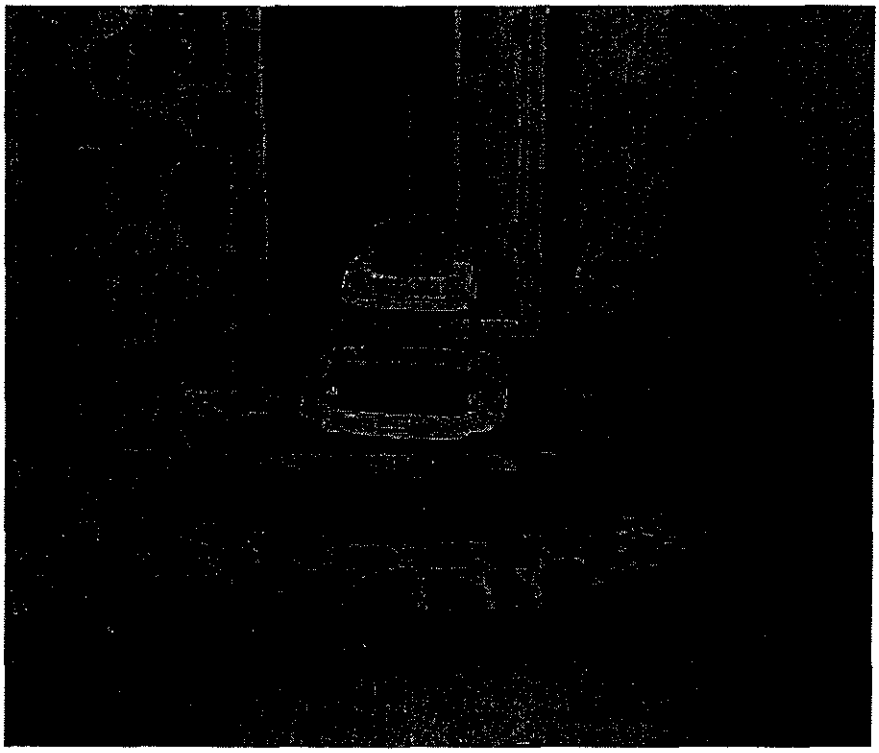
The victim was placed inside the baby walker while she and her mother were both inside the home. The victim was in the foyer/hallway of the family home. The front door of the home was inadvertently left open and the victim maneuvered her walker through the open front door and onto the front porch. The porch was made of large stones and concrete fill and is semi-circular in shape. A photograph of the front porch with the walker on top is included (Photograph 4). The victim continued moving the baby walker and fell down the two front porch steps.

The victim received contusions/abrasions to her head. The victim has fully recovered and does not have any permanent injuries.

Photograph 3



Photograph 4



IDI 000330HEP0481

The incident occurred on March 29, 2000. The victim was a male who was 10-months-old at the time of the incident, weighed 21 pounds and was 28 inches tall. Information on the incident was from the telephone investigation with the mother who did not witness the incident. An on-site visit was not performed by request of the parents.

The victim was injured while seated in the baby walker inside of the home he lived in. The baby walker was a "new-style" baby walker purchased new in February 2000, as verified by CPSC staff during a telephone conversation with the victim's father. The child spent approximately 30 minutes to an hour in the walker four times a day.

The victim was seated in the baby walker in the living room of the family home. He moved the baby walker next to the staircase and the victim fell down 6 stairs. The victim's mother reported that the floor was linoleum and there was silver floor stripping present at the location of the incident. There was no barrier present at the stairwell. The victim received contusions/abrasions to the head. He was not expected to have any long-term problems as a result of the incident.

IDI 000410HEP7601

The date of the incident is April 6, 2000. The victim was a female who was 9-months-old and weighed 22 pounds at the time of the incident. Information was obtained from the telephone investigation with the mother, who witnessed the incident. An on-site visit was not conducted.

The victim was injured while seated in the baby walker in the family home. The baby walker was identified by manufacturer name and model name as a "new-style" walker. It was given to the victim's parents as a gift on December 25, 1999.

The victim was seated in the baby walker in the home. The victim's father opened a door leading to the back yard to check on the victim's sibling. The victim moved the baby walker to the open door. The mother states that the victim lifted the baby walker up to cross the wood baseboard/threshold at the doorframe. This action by the child would disable the friction strips on the underside of the baby walker. The victim proceeded across the threshold and fell face-down into the backyard. For this reason the effectiveness of the baby walker could not be evaluated and an on-site investigation was not conducted.

The victim was treated for contusions/abrasions to her face. She does not have any permanent injuries from the incident.

IDI 000421HEP7681

The incident took place on April 17, 2000. The injured child was a female who was 8-months-old at the time of the incident and weighed 21 pounds. The victim's mother, who did not witness the incident, provided the information during the telephone investigation. An on-site visit was not performed because the walker was no longer available.

The victim was injured while seated in a baby walker inside the family home. The walker was identified as a "new-style" baby walker by the manufacturer name and model name. The walker was purchased new in 1997. The mother stated that the walker could be moved despite the stripping on the underside of the walker. She may have confused the description of friction strips as being the parking stands on the walker. The parking stands lift the walker wheels off the floor to limit the movement of the walker. If the parking stands are not fully engaged, the child can continue to move the walker.

The victim was placed in the baby walker in the kitchen of the home. The door to the basement was left open and the victim tried to follow her father down to the basement. The victim moved the walker through the door and fell down 12 steps. The flooring material in the kitchen was linoleum and changed to carpeted stairs. There was reportedly no threshold present. The victim hit the side of her head on the basement floor.

The victim was kept in the hospital overnight for observations and two CAT scans were performed. She was released with a diagnosis of internal organ injuries to her head. There were no permanent injuries as a result of the incident.

IDI 000503HEP6321

The incident took place on April 29, 2000. The victim was an 11-month-old male, weighed 21 pounds and stood 28 inches tall. The victim's mother and father, neither of whom witnessed the incident, participated in the on-site in-depth investigation. The walker was collected and taken to the CPSC laboratory for testing.

The walker was a "new-style" walker, identified as such by the mother during the initial telephone interview and verified during the on-site investigation. It was bought new in January 2000. The incident took place on the second floor of the home in which the victim lived.

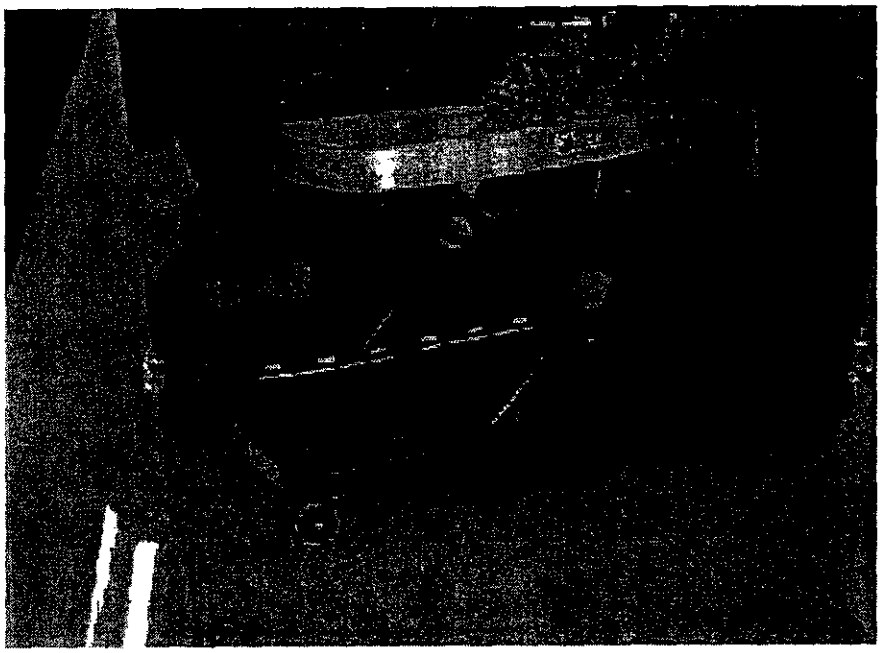
The victim was placed in the baby walker while the victim's mother was in the kitchen. The victim's older brother and a friend were also in the house, but leaving to go play outside. There was a gate located at the top of the carpeted stairs. The carpet was loop pile and there was no threshold from the floor to the steps. One of the older boys left the gate open as they left the house. The victim's mother believes the victim was trying to follow the boys and went down the stairs. She did not see the incident, but heard noises and then heard the victim crying. She went to the stairs and found that the baby walker, with the victim inside, had gone down the stairs. Photograph 5 shows the baby walker at the top of the staircase.

The walker did not topple over during the descent down the stairs, rather slid down with the child seated inside. The baby walker hit a small table located at the bottom of the stairs and stopped there. The victim's mother found the child partially out of the walker and the walker was in a collapsed position. It is unknown when the walker collapsed, either during the descent down the stairs or when it hit the table. Photograph 6 shows the stairs with the collapsed walker on them and the table that the victim ran into.

When the victim was partially ejected from the seat, he hit his gums on either the baby walker tray or the table. He was treated and released from the emergency room with no serious injuries.

The baby walker was collected by the investigator and tested in the CPSC laboratory. The walker passed the performance test as stated in the voluntary standard.

Photograph 5



Photograph 6

Appendix B – New-Style Walker Incidents in the 2000-2001 Special Study

IDI 010130HEP9016

This incident occurred on January 8, 2001. The victim was an 11-month-old male who was visiting his aunt's house. The child was in the walker for approximately 10 minutes when he moved to the foyer area of the home and fell down nine wooden steps. The incident was not witnessed. The victim's aunt stated the victim was disoriented, but was diagnosed with a scrape and no internal head injury.

The walker was described as a four-wheel walker with rubber stripping that could fit through a standard doorway and was purchased at the beginning of 2000. An on-site investigation was not conducted.

IDI 010214HEP9012

The incident took place on January 1, 2001, when an 8-month-old male fell down the steps on the front porch. The child was not able to walk but was able to lift the baby walker up to get over obstacles in his path. He was in the walker and walking towards his mother who was outside in the front yard. The victim's mother believed that he went down one step on the porch and then the walker flipped over.

The walker was originally purchased in 1998, but was a second-hand product for the victim. The walker had four wheels and could fit through a door. During the telephone investigation, the walker was described as having rubber stripping, but during the on-site investigation, the mother stated the walker did not have rubber stripping. The walker was not available for observation or collection.

IDI 010214HEP9016

The incident occurred on November 4, 2000. A 10-month-old female moved the walker across the room to a stairway that had a safety gate placed in front of it. The gate was not secured to the stairway entrance and the victim pushed through the gate. She fell down 8 steps and landed on a carpeted floor. The walker folded down and flipped over. The victim received a contusion on her arm.

The walker was a new walker, as indicated by the manufacturer name and model name. It had three wheels, rubber stripping and fit through a standard doorway. The on-site investigation was terminated because of failure to contact the family.

IDI 010618HEP9051

This incident took place on April 14, 2001. The victim, an 11-month-old female is believed to have followed the family cats to the basement. The basement door was not latched and the victim tumbled down about eight steps. The walker hit the concrete floor and tipped over. The child hit her head on the concrete. She was diagnosed with a mild concussion.

The walker was a new-style walker as indicated by the manufacturer name and model name. It was purchased in April 2000 and described as having six wheels, rubber stripping and fitting through a standard door. The on-site investigation was terminated because of failure to contact the family.

IDI 010618HEP9035

On April 27, 2001, a 13-month-old male fell off of the outdoor porch in his baby walker. The child was placed in the walker and the rear brakes were engaged. The child was still able to move the walker even with the rear brakes engaged and he moved it over to the edge of the porch. The walker went over the edge of the porch and stopped as it is supposed to. However, the child leaned over the edge and the walker tipped over and off of the porch.

The walker was identified by the manufacturer name and model name. There was heavy damage to the wheels from use on the outdoor porch.

TAB D

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

Date: May 1, 2001

TO : Barbara J. Jacobson,
Project Manager for Infant Walkers
Directorate for Health Sciences

THROUGH : Andrew G. Stadnik
Associate Executive Director
Directorate for Laboratory Sciences
James Hyatt
Director, Division of Mechanical Engineering
Directorate for Laboratory Sciences

FROM : George F. Sushinsky (301) 424-6421
Mechanical Engineer
Mechanical Engineering Division
Directorate for Laboratory Sciences

SUBJECT : Step Tests of Infant Walkers

I. Purpose:

Staff from the Division of Mechanical Engineering (LSM) in the Directorate for Laboratory Sciences (LS) tested infant walkers to determine the walker's ability to stop at the edge of a step. LS staff conducted the step test using the basic test set up described in ASTM F977 Standard Consumer Safety Specification for Infant Walkers, paragraphs 7.6.1 through 7.6.3 .5 and the Walker Test Plan in Appendix 1. The primary purpose of the tests was to determine the travel distance from the edge of the test platform needed to fail the walker. In addition, exploratory tests of infant walkers on a carpeted surface were run to assess the effect of the carpeting on walker performance during the step test of ASTM F 977.

II. Test Samples

CPSC staff selected three walker models for testing. Two of the models were from the same manufacturer and represented their current model (New) and a similar, older model (Old). The third selected walker (designated A) was from a different manufacturer. Three walkers of each model were provided for the tests. In addition to these nine walkers, a consumer sample was collected during an investigation of an incident. The incident involved a case in which a child fell down stairs in the walker. This walker was similar in construction to one of the sampled models.

Each of the walkers was manufactured to meet the step test requirements of the voluntary standard. Each walker had "friction strips" attached to the underside of its base to stop the walker if it went over an edge such as a step. The new walkers came with toy accessories. The wheel types,

tray heights, and weights of the walkers are provided in Table 1. The walker manufacturers and models are provided in Appendix 2.

Table 1 – Walker Characteristics

Walker Model	Wheel Type		Tray Height - highest (in)	Sample Weight (lb_m)	
	Front	Rear		Without toys	With toys
Incident Sample	caster	fixed	16 1/2	7.9	*
Old	caster	fixed	16 3/4	9.5	8.4
New	caster	fixed	17 3/4	8.8	11.2
A	caster	fixed	16 1/8	9.1	9.3

* Toy bar was not included with this sample. The parents had removed it prior to the incident.

III. Test Procedure

In testing to [the step test at] paragraph 7.6 of ASTM F977, the infant walker is raised to its highest use position. A CAMI Infant Dummy – Mark II is placed in the seat and positioned leaning against the infant walker in the test direction (forward against the tray, sideward contacting the side of the seating area, or rearward contacting the seat back). For this test program, LSM staff performed the step test only in the forward direction of travel (paragraph 7.6.3). When positioning the dummy, the legs of the dummy are raised to prevent contact with the test surface. For these tests, the legs were positioned with the heel about 2 inches (50 mm) above the surface. The walker and dummy are placed on a platform with a hardwood test surface and a rope is attached to the front of the walker's base. The rope passes over a pulley, and the rope is attached to an 8-pound (3.6-kg) mass. The pulley is positioned such that it pulls the walker with a horizontal force. The platform is raised above the floor a sufficient distance to allow the mass to fall freely in order to accelerate the walker and dummy toward the edge of the platform. For the ASTM step test, the walker starts from a position that is 14.6 in (370 mm) from the edge of the test platform. The walker is released from the starting position and is pulled toward the edge of the test platform. The falling 8-pound (3.6-kg) mass accelerates the walker to achieve a simulated speed of 4 ft/s (1 m/s). In the LSM tests, the walkers were released from distances that increased in 1-inch (25-mm) increments starting at 14.6 in (370 mm) until the walker was judged to have failed the test. The ASTM test procedures also include tests using the CAMI dummy with a weighted vest. Tests with the weighted vest were not part of this test program.

The ASTM standard requires the walker to remain on the platform or, if part of the walker extends over the edge of the platform after the walker stops at the platform's edge, to remain on the platform when the tipover test of Paragraph 7.6.3.5 is conducted. This test involves removing the CAMI dummy, rope and 8-pound (3.6-kg) mass from the walker without repositioning the walker. A tipping force of 17 lb_f (76 N) is applied to a point on the walker's tray defined by the geometry of the walker. The walker should not tip over the edge of the platform.

Prior to performing the tests outlined in the walker test plan, LSM staff performed a tipover test on each walker. This test determined the distance past the edge of the platform at which the walker failed the ASTM step test. LSM staff marked this distance on the base of the walker and used it as the reference point to judge walker tipover. After each step test, the tipover of the walker was evaluated by the location of the tipover marks relative to the edge of the test platform.

The step test was also performed on a carpeted surface using one walker. The carpet was a 3/16-in (5-mm) high, level loop, olefin carpet with foam backing.

IV. Test Results

The results of all of the tests, the travel distance along the test platform to produce a step-test failure, are presented in Table 2 for the wood platform. Failure was determined by the walker traveling far enough to pass the tipover marks on the walker's base over the edge of the platform or to completely fall off the platform's edge.

Tests on the carpeted surface produced no step test failures at travel distances up to 32.6 inches (828 mm).

V. Discussion

Each of the walkers tested passed the requirements of the forward facing step test as defined in paragraph 7.6.3 of ASTM F977. This includes the incident sample that was reported to have fallen down a flight of carpeted stairs. Statistical analysis of the data by staff from the Division of Hazard Analysis (EPHA) showed that all of the walkers have a failure distance that is statistically greater than 14.6 in (370 mm), the value in the ASTM F977 standard.

Tests on carpet passed at travel distances up to 32.6 inches (828 mm) due to a slower speed of the walker on the carpeted surface and to greater "friction" between the carpet fibers and the friction strip materials used on the base of the walker.

Table 2 – Infant Walker Test Results
(Step test failure distance in inches)

Walker Model Test Order	Test Series 1	Test Series 2	Test Series 3	Test Series 4	Test Series 5	Avg.
Incident Sample[1]	16.6	17.6	17.6	17.6	17.6	17.4
OLD 3[1]	20.6	21.6	20.6	19.6	20.6	20.6
A 2	16.6	16.6	16.6	16.6	16.6	16.6
NEW 2	20.6	19.6	19.6	20.6	19.6	20.0
A 1	17.6	18.6	18.6	18.6	17.6	18.2
A 3	17.6	17.6	18.6	17.6	18.6	18.0
NEW 3	14.6	17.6	17.6	17.6	18.6	17.2
OLD 1	24.6	22.6	21.6	23.6	22.6	23.0
OLD 2	22.6	23.6	23.6	23.6	22.6	23.2
NEW 1	19.6	17.6	19.6	19.6	17.6	18.8
Incident Sample	18.6	17.6	18.6	18.6	19.6	18.6
OLD 3	20.6	20.6	20.6	20.6	21.6	20.8

[1] The test protocol was not followed in tests of this sample. The samples were retested according to the protocol at the end of the scheduled testing.

CC
LS File
EXHR File

Appendix 1

Walker Test Plan

Objective: Compare distance to failure of three model walkers.

Samples: 3 Old, 3 New, 3 A Walkers, and 1 incident sample

Equipment: 6 month CAMI infant dummy.
ASTM F 977 test platform for step test.
Force Gages: 10 and 50 lb_f capacity, digital, handheld

Reference: ASTM F 977-00 Standard Consumer Safety Specification for Infant Walkers

Set-up:

1. Mark the platform in 10 1-inch increments from the start line (14.6 inches) as shown in figure 1.

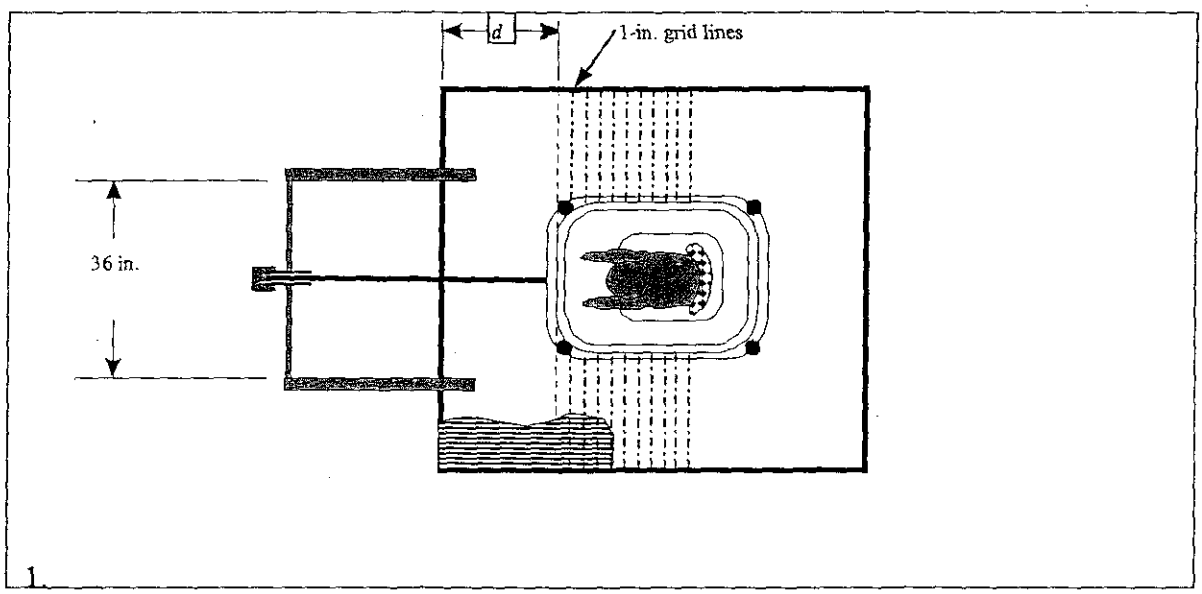


Figure 1. Test Platform with 1-inch grid.

2. Assemble walkers as per manufacturer's direction and record the weight of the walker.
3. Adjust to the highest use position.
4. Locate the point on the walker tray that is 1-inch less than one-half the difference between 32 inches and the height of the walker tray at the top edge of the tray adjacent to the seating area.
5. Use the 50 lb_f capacity force gage to gradually apply a 17 lb_f vertical force at the location determined in step 4 and maintain the force for an additional 10 seconds.
6. When the 17 lb_f vertical force just tips the walker, mark each side of the walker base where it lines up with the edge of the test platform.

Test Procedure

1. Perform stair fall test (section 7.6.3 of the ASTM standard) at distance *d* from the edge. If the walker FAILS record distance in Table 1.

2. If the walker PASSES find the failure distance by incrementally increasing the distance from the edge and repeating the test until the walker FAILS.
3. Record distance in Table 1.
4. Find failure distance with same walker for Runs 2-5. Start the next test run at a distance that is 2 inches less than the failure distance of the previous test run.
5. Repeat test procedure for remaining samples.

Random Sample Test Order: Test the walker samples in the order below.

Table 1. Test Data

	Failure Distance					
	Test Series 1	Test Series 2	Test Series 3	Test Series 4	Test Series 5	Avg.
Incident Sample						
OLD 3						
A 2						
NEW 2						
A 1						
A 3						
NEW 3						
OLD 1						
OLD 2						
NEW 1						

Appendix 2

Walker Manufacturer and Model

Test Code	Manufacturer	Model
Incident Sample	Graco	44K737
Old	Graco	4431RV
New	Graco	4540TJH
A	Safety First	Baby Steps

TAB E

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN

Policy Statement

Pediatrics Volume 108, Number 3 September 2001, pp 790-792

Injuries Associated With Infant Walkers

AMERICAN ACADEMY OF PEDIATRICS

Committee on Injury and Poison Prevention

ABSTRACT. In 1999, an estimated 8800 children younger than 15 months were treated in hospital emergency departments in the United States for injuries associated with infant walkers. Thirty-four infant walker-related deaths were reported from 1973 through 1998. The vast majority of injuries occur from falls down stairs, and head injuries are common. Walkers do not help a child learn to walk; indeed, they can delay normal motor and mental development. The use of warning labels, public education, adult supervision during walker use, and stair gates have all been demonstrated to be insufficient strategies to prevent injuries associated with infant walkers. To comply with the revised voluntary standard (ASTM F977-96), walkers manufactured after June 30, 1997, must be wider than a 36-in doorway or must have a braking mechanism designed to stop the walker if 1 or more wheels drop off the riding surface, such as at the top of a stairway. Because data indicate a considerable risk of major and minor injury and even death from the use of infant walkers, and because there is no clear benefit from their use, the American Academy of Pediatrics recommends a ban on the manufacture and sale of mobile infant walkers. If a parent insists on using a mobile infant walker, it is vital that they choose a walker that meets the performance standards of ASTM F977-96 to prevent falls down stairs. Stationary activity centers should be promoted as a safer alternative to mobile infant walkers.

ABBREVIATIONS. NEISS, National Electronic Injury Surveillance System; CPSC, Consumer Product Safety Commission; JPMA, Juvenile Products Manufacturers Association.

OVERVIEW

An infant walker, or baby walker, consists of a wheeled base supporting a rigid frame that holds a fabric seat with leg openings and usually a plastic tray. The device is designed to support a preambulatory infant, with feet on the floor, and to allow mobility while the infant is learning to walk. Some walkers are equipped with bouncing mechanisms, activity toys, or locking devices that keep them from moving, and some fold flat for storage.

Estimated annual sales of walkers are more than 3 million.[1] Older studies have found that 55% to 92% of infants between 5 and 15 months of age use walkers.[2-6] Parents give various reasons for using walkers-to keep the infant quiet and happy, to encourage mobility and promote walking, to provide exercise, and to hold the infant during feeding.[4,5,7] One third of parents in one study used walkers because they believed that walkers would keep their infants safe.[5]

DATA

According to the National Electronic Injury Surveillance System (NEISS) of the US Consumer Product Safety Commission (CPSC), an estimated 8800 children younger than 15 months were treated in hospital emergency departments in the United States in 1999 for injuries associated with the use of infant walkers.[8] This represents a 56% decrease in these injuries since 1995, when 20 100 injuries were reported.[8] Thirty-four deaths associated with the use of infant walkers were reported to the CPSC during the years 1973 through 1998 (D. Tinsworth, personal communication, November 2000). Population surveys suggest that there may be as many as 10 times more injuries that are sufficiently minor that they are treated in physicians' offices or do not require medical attention.[5] Parents report that walker-related injuries occur at some time in 12% to 40% of infants who use walkers.[6,9] A study of 65 Virginia children injured in walkers estimated the annual incidence of walker injuries resulting in emergency department visits to be 8.9 per 1000 children younger than 1 year. Severe injuries occurred at a rate of 1.7 per 1000.[10] Approximately one fourth of infant walker-associated injuries reported to the NEISS are described as "more severe," and these are nearly all fractures and closed head injuries. Skull fractures accounted for almost 10% of all walker-related injuries in one large series of patients.[11]

Reported injuries are overwhelmingly caused by falls, either from the walker or with the infant remaining in the walker. Stairs are implicated in 75% to 96% of cases and in almost all of the severe injuries.[11] A small number of pinch injuries to fingers and toes occur.[1,12] Burns account for 2% to 5% of walker-related injuries.[7,8,10] Walkers also have been commonly associated with poisonings of infants under 1 year of age.[13] These burns and poisonings are attributable to the increased access to these hazards afforded by an infant's increased mobility in a walker. Although submersion is not a commonly reported mechanism of nonfatal injury, 4 of the 11 deaths reported between 1989 and 1993 were from drowning (in a pool or toilet), 4 were from suffocation (compression of the neck against the feeding tray), and 3 were from falls.[12]

Little effort has been made to compare the rates and severity of various injuries in children of the same age who do or do not use walkers. A report from Toronto's Hospital for Sick Children, however, states that during 1984, 123 infants who had fallen down stairs in walkers were evaluated; only 1 infant in the same age group who had fallen down stairs was not in a walker.[7] Although walkers do not consistently account for the majority of infant injuries associated with falls down stairs, in another study,[14] walkers accounted for 45% of falls down stairways causing head injury in children younger than 24 months, and these walker-related stairway falls caused more severe injury. The study authors[14] believe that the walker predisposes infants to more serious injury by increased kinetic energy resulting from the larger mass and higher initial speed (speeds of more than 3 ft/sec have been recorded[15]) and because the infant tends to remain in the walker while falling, resulting in unprotected head exposure.[14]

Parents who use infant walkers often express their perception that the walker keeps their child safe (a form of baby-sitting), or that it helps the infant learn to walk. Data supporting such benefits do not exist. One study that evaluated children between 6 and 15 months of age demonstrated that walker-experienced infants sat, crawled, and walked later than no-walker controls, and they scored lower on Bayley scales of mental and motor development.[16] At first, the unassisted gait of infants who use walkers may be slightly abnormal.[2] There is no evidence, however, that such effects are lasting in typical children or that they have any impact on the child's ultimate motor development or intelligence.[2,17] Anecdotal reports suggest that children with cerebral palsy who use walkers experience exaggerated abnormal motor reactions and delay in development of normal balance and protective responses; however, the duration of these signs and the consequences of these observations have not been addressed systematically.[18-20] Beyond parental impressions that infants seem happier in walkers, it

does not appear that any real benefits of using a walker can be found to balance the considerable risk of injury.

PREVENTION

Strategies to prevent infant walker-related injuries include 1) warning labels and public education, 2) adult supervision during walker use, 3) barriers such as stair gates, 4) infant walker design changes to prevent falls down stairs, and 5) a proposed ban on mobile infant walkers.

Until the 1996 revision of the voluntary standard for infant walkers (ASTM F977-96),[21] injuries attributable to falls were addressed only through warning labels, which was an ineffective strategy in reducing these injuries.[1] Several studies have shown that even the occurrence of a walker-related injury does not deter parents from the continued use of walkers for the injured child or subsequent siblings. In one study, 32% of parents reported that they used the walker again after the injury, and 59% acknowledged that they were aware of the potential dangers of walkers before the injury episode.[11] Thus, more labeling and educational efforts are not likely to lead to an additional decrease in walker-related injuries.[4,5,7,11]

Adult supervision also cannot be relied on to prevent infant walker-related injuries. Moving at more than 3 ft/sec, an infant can be across the room before an adult has time to react. In one study, 78% of children were being supervised at the time of the injury, including supervision by an adult in 69% of cases.[11] Other studies have also shown that many of these events occur with 1 or both parents in the room.[7,12,22] Stair gates are not uniformly effective even when present; more than one third of falls down stairs in one study occurred with stair gates in place, but the gates were either left open or improperly attached.[7]

Both mandatory and voluntary standards exist for infant walkers. The mandatory standard that has been in effect since 1971 (16 CFR 1500.86 [a]4) primarily addresses injuries to digits caused by pinching or shearing in the frame of the walker and by collapse of the walker. Judging from CPSC statistics, these types of injuries are infrequent, suggesting that these standards are effective.[1] The voluntary standard (ASTM F977) addresses the more difficult problems of falls and tip-overs. The standard's performance requirements to prevent walker tip-overs and structural failures appear to have been effective, because these types of incidents are now uncommon.

In 1996, the voluntary standard was revised to include performance standards for infant walkers to prevent falls down stairs. To comply, walkers manufactured after June 30, 1997, must be wider than a 36-in doorway or must have a braking mechanism designed to stop the walker if 1 or more wheels drop off the riding surface, such as at the top of a stairway. A similar voluntary standard was adopted in Canada in June 1989 requiring the width of walkers to be at least 900 mm (35.4 in).[23] In the United States, CPSC data confirm that basement stairs are involved in approximately half of walker injuries and that about 80% of the doorways to these stairs are 36 in wide or less.[12] Although walkers meeting the new standard began appearing in retail stores at the end of 1997, overall industry compliance remains to be evaluated. Because compliance is voluntary, the incentive for manufacturers to meet the new safety standards is a product certification by the Juvenile Products Manufacturers Association (JPMA). The manufacturers most likely to comply with the revised voluntary standard are members of the JPMA; however, nearly 40% of the new baby walkers sold in the United States are manufactured by firms that do not belong to the JPMA. Because the rule-making proceeding that the CPSC began in 1994 is still open, the CPSC could pursue the development of a mandatory standard to prevent infant walker stairway falls if the industry's compliance with the voluntary standard were judged to be inadequate.

Baby walker-like devices that do not roll across the floor on wheels are also available to consumers. These stationary activity centers allow children to bounce, swivel, and tip, and they provide parents an alternative to the use of mobile infant walkers. Injury data for these devices are not yet available. Their stationary design eliminates the risk of stair-related falls, however, and therefore they should be safer than mobile walkers. The recent decrease in the number of baby walker-associated injuries is likely to be attributable in part to the availability of walker alternatives, such as stationary activity centers, and a decrease in the use of baby walkers manufactured before July 1997.

RECOMMENDATIONS

1. Because data indicate a considerable risk of major and minor injury and even death from the use of walkers, and because there is no clear benefit from their use, the American Academy of Pediatrics recommends a ban on the manufacture and sale of mobile infant walkers.
2. If a parent insists on using a mobile walker, it is vital that they choose a walker that meets the performance standards of ASTM F977-96 to prevent falls down stairs.
3. Efforts should be made, through media campaigns and during anticipatory guidance, to educate parents about the hazards and lack of benefits of walkers. The particular risk of walkers in households with stairs should be emphasized.
4. Even if walkers are banned, the life span of existing devices is considerable, and community programs should be developed to encourage proper disposal of walkers so that they can be destroyed and the materials recycled.
5. Agencies responsible for licensing child care facilities should not permit the use of walkers in approved child care centers and homes. Hospitals should not permit the use of walkers in their facilities.
6. Because the safest baby walker is one without wheels, stationary activity centers should be promoted as a safer alternative to mobile walkers.
7. The CPSC should closely monitor the compliance of infant walker manufacturers with the voluntary standard ASTM F977-96 to ensure that noncomplying walkers do not continue to be manufactured and sold.
8. The CPSC should collect surveillance data on children injured while using walkers that are in compliance with ASTM F977-96.

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Return to Contents

TAB F

DRAFT OF 4/12/02

Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

Baby Walkers; Termination of Rulemaking

AGENCY: Consumer Product Safety Commission.

ACTION: Notice.

SUMMARY: In August of 1994 the U.S. Consumer Product Safety Commission (CPSC or Commission) published an advance notice of proposed rulemaking under authority of the Federal Hazardous Substances Act (FHSA) stating that it had reason to believe that baby walkers might present an unreasonable risk of injury or death due to stair falls. 59 FR 39306.

The Commission now has information that appears to demonstrate that currently available baby walkers do not present "an unreasonable risk of personal injury" due to stair falls. A finding of unreasonable risk of personal injury is a necessary prerequisite under the Federal Hazardous Substances Act (FHSA) for the Commission to declare an article intended for use by children to be a hazardous substance due to a mechanical hazard.

The FHSA also prohibits the Commission from declaring

that an article intended for use by children presents a mechanical hazard if there is an adopted and implemented voluntary standard that addresses the risk unless it can make, *inter alia*, one or more of the following findings. One is that compliance with the standard will not adequately reduce or eliminate the risk. Another is that it is unlikely that there will be substantial compliance with the standard. Information now available to the Commission would preclude making either of these findings.

Accordingly, the Commission has terminated the baby walker regulatory proceeding.

Termination of the baby walker stair fall proceeding has no effect on the FHSA baby walker mechanical injury prevention and labeling requirements at 16 CFR 1500.18(a)(6) and 1500.86(a)(4). These requirements remain in full force and effect.

FOR FURTHER INFORMATION CONTACT: Barbara J. Jacobson, Directorate for Health Sciences, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0477, ext. 1206; e-mail: bjacobson@cpsc.gov

SUPPLEMENTARY INFORMATION:

A. The Product

A baby walker is a device that supports a child so that the child can use its feet to move around before, or while,

learning to walk. A baby walker generally consists of a fabric seat with leg openings mounted to a rigid plastic deck. The deck is attached to a base that usually has wheels to make it mobile. A walker generally can be folded for storage, and may have a feeding tray, adjustable seat height and a bouncing mechanism. Activity toys may be attached to the tray, and some walkers have wheel lock mechanisms.

B. Background of the Rulemaking

The Commission initiated the proceeding to address baby walker stair falls with an advance notice of proposed rulemaking (ANPR) in August 1994. 59 FR 39306. This proceeding had no effect on the existing baby walker mechanical injury prevention and labeling requirements at 16 CFR 1500.18(a)(6) and 1500.86(a)(4) previously promulgated under authority of the FHSA. These requirements remain in full force and effect.

At the time the ANPR was issued, baby walkers accounted for a higher number of injuries than any other type of nursery product. The majority of the injuries occurred as a result of children falling down stairs while in baby walkers.

Thirteen comments were received in response to the ANPR. Seven commenters supported a mandatory rulemaking.

Six commenters were opposed to a mandatory rulemaking. Five of the commenters who opposed the mandatory rulemaking requested that any new baby walker requirements be developed through the ASTM voluntary standards setting process.

After publication of the ANPR, Commission staff worked with the ASTM Walker Subcommittee to add new performance requirements to the voluntary walker standard to address the stair fall hazard. A revised ASTM F977 standard incorporating these improvements received final ASTM approval on October 10, 1996 and was published in early 1997.[1]

C. Relevant Statutory Provisions

The CPSC baby walker proceeding was conducted pursuant to the FHSA. 15 U.S.C. 1261 *et seq.* Section 2(f)(1)(D) of the FHSA defines "hazardous substance" to include any toy or other article intended for use by children that the Commission determines, by regulation, presents an electrical, mechanical, or thermal hazard. 15 U.S.C. 1261(f)(1)(D). An article may present a mechanical hazard if its design or manufacture presents an unreasonable risk of personal injury or illness during normal use or when

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[1] Copies of *ASTM F977-00 Standard Consumer Safety Specification for Infant Walkers* are available from ASTM. The URL for the ASTM world wide web site is: www.astm.org

subjected to reasonably foreseeable damage or abuse. Among other things, a mechanical hazard could include a risk of injury "(5) from lack or insufficiency of controls to reduce or stop motion, ... or (9) because of any other aspect of the article's design or manufacture." 15 U.S.C. 1261(s). Thus, in this proceeding, for the Commission to declare baby walkers to be hazardous substances due to a mechanical hazard, it would find that currently available baby walkers pose an unreasonable risk of personal injury as a result of "lack or insufficiency of controls to reduce or stop motion."[2]

Section 3(i)(2) of the FHSA prohibits the Commission from making a determination that an article intended for use by children presents a mechanical hazard, and therefore is a banned hazardous substance by operation of law, if there is an adopted and implemented voluntary standard that addresses the risk in question unless it can make, *inter alia*, one or more of the following findings.[3] 15 U.S.C. 1262(i)(2). One

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[2] Under section 2(q)(1)(A) of the FHSA, a toy, or other article intended for use by children which is a hazardous substance is also a "banned hazardous substance." 15 U.S.C. 1261(q)(1)(A).

[3] The FHSA contains two other pertinent constraints on Commission action in the face of voluntary standards activities, neither of which are *apropos* here. The first directs the Commission to consider publishing as a proposed CPSC regulation an adequate existing standard submitted to it during the period specified in an advance notice of proposed rulemaking (ANPR). 15 U.S.C. 1262(g)(1). No such standard was submitted in response to

is that compliance with the standard is not likely to eliminate or adequately reduce the risk. 15 U.S.C. 1262(i)(2)(A)(i). Another is that it is unlikely that there will be substantial compliance with the voluntary standard. 15 U.S.C. 1262(i)(2)(A)(ii).

D. There has been a Significant Reduction in the Risk of Injury from Baby Walkers since 1995

Based on data from the Commission's National Electronic Injury Surveillance System (NEISS), baby walker-related injuries have dropped 63 percent since 1995, from 20,100 emergency room treated injuries to 7,400.[4] The number of U.S. live births has increased slightly, approximately 4%, since 1995. Comparing the estimated number of injuries over the same time period, the rate of injury per 1,000 live births has dropped 65% from 1995 to 2000.

CPSC received two reports of baby walker-related deaths

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the August 1994 ANPR. The second requires the Commission to terminate the rulemaking proceeding and rely on an adequate existing voluntary standard developed in response to a commitment and schedule for development thereof submitted to it during the period specified in an ANPR. 15 U.S.C. 1262(g)(2). No such commitment and schedule were received in response to the 1994 ANPR.

[4] Memorandum from Debra Sweet, Division of Hazard Analysis, Directorate for Epidemiology, to Barbara Jacobson, Project Manager for Baby Walkers, Directorate for Health Sciences, *Baby Walker-Related Deaths and Injuries*, March 13, 2002. This and other materials relevant to this proceeding are available on the CPSC website at www.cpsc.gov

in 2001, the first reports of baby walker deaths since 1997. The deaths were from head injuries incurred from falls down stairs. Investigations showed that both walkers were older-style walkers manufactured before the stair-fall improvements were incorporated into ASTM voluntary standard F977, *Standard Consumer Safety Specification for Infant Walkers*.

The Commission concludes that the consistent decrease in injuries would preclude a finding that currently available walkers present "an unreasonable risk of personal injury." 15 U.S.C. 1261(s).

E. ASTM Voluntary Standard F977-00.

Beginning in 1994, after publication of the ANPR, CPSC staff worked with the ASTM Walker Subcommittee to add new performance requirements to the voluntary walker standard to address the stair fall hazard. The new performance requirements passed final ASTM balloting in August 1996, received final approval on October 10, 1996, and the revised F977 standard was published by ASTM in early 1997.

The revised standard incorporates a performance test methodology that simulates a child in a walker moving across the floor, through a doorway, and to a stairway. A dummy represents a child in the walker. The walker is tested facing forward, backward, and sideways. If the walker

passes through the 36-inch wide opening at the end of a test table and falls off the table, the walker fails to meet the performance requirements. If the walker stops at the edge of the test table and any part of the walker extends over the edge of the table, a tip-over test is performed. The walker fails to meet the requirements of the ASTM standard if it then falls off the table during the tip-over test.

The performance test parameters were selected to be representative of stringent conditions, including use of test dummy weights that reflect both ends of the weight range of children 6-15 months old expected to use walkers and maximum expected walker speeds, child strength capabilities, and tip-over conditions.

The CPSC staff conducted two 6-month special studies of walker-related incidents from November 1, 1999 through April 30, 2000 and November 1, 2000 through April 30, 2001 to identify the types of walkers involved in recent stair fall incidents. The results of those studies indicate that most of the recent stair fall incidents involve older walkers not meeting the revised F977 standard. In light of the results of this study, a Commission finding that compliance with ASTM standard F977 is not likely to eliminate or adequately reduce the risk could not be justified. 15 U.S.C. 1262(i)(2)(A)(i).

F. There Appears to be Substantial Compliance with ASTM Standard F977

According to information provided to CPSC staff by the Juvenile Products Manufacturers Association (JPMA), all five domestic walker manufacturers comply with the revised ASTM standard. CPSC staff estimates that less than 1.0 percent of all baby walkers sold in the U.S. between 1997 and 2001 were not in compliance with the revised ASTM standard. The JPMA also indicates that 98 percent of the baby walkers currently available for sale in the U.S. comply with revised ASTM standard F977. Apparently, the remaining small percentage of non-complying walkers is imported by small firms. Thus the Commission could not at this time support a finding that it is unlikely that there will be substantial compliance with ASTM F977.

G. Policy Statement by the American Academy of Pediatrics (AAP)

In September 2001, the Committee on Injury and Poison Prevention of the American Academy of Pediatrics (AAP) published a policy statement on baby walkers recommending a ban on the manufacture and sale of mobile infant walkers. That recommendation is based on outdated information and does not alter the Commission's decision to terminate the baby walker proceeding.

H. Regulatory Activity in Canada

Health Canada has indicated plans to propose a mandatory ban of the sale of all baby walkers in Canada.

I. Conclusion

As a result of the foregoing analysis, the Commission has made a decision to terminate the baby walker stair fall rulemaking.

One reason for the decision is that the injury data would now not support a finding that currently available baby walkers present "an unreasonable risk of personal injury . . .," due to stair falls, a necessary prerequisite for a Commission determination under section 2(s) of the FHSA that baby walkers present a mechanical hazard on that basis. 15 U.S.C. 1261(s).

Also, information available now does not support a Commission finding under section 3(i)(2)(A) of the FHSA either that voluntary compliance with ASTM standard F977 will not eliminate or adequately reduce the risk or that substantial compliance with standard F977 is unlikely. 15 U.S.C. 1262(i)(2)(A).

Finally, to avoid any potential misunderstanding, it is again reiterated that the Commission decision to terminate the baby walker stair fall proceeding has no effect on the

FHSA baby walker mechanical injury prevention and labeling requirements at 16 CFR 1500.18(a)(6) and 1500.86(a)(4). These requirements remain in full force and effect.

Dated: _____

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Todd A. Stevenson, Secretary
Consumer Product Safety Commission