



April 27, 2023

Rick Rossati, Chair ASTM 15.42 on Furniture Safety
Shannon Henesy, Standards Specialist, UL 962 committee POC
Anthony Serge, Technical Director of Safety and Performance, BIFMA
TRANSMITTED VIA EMAIL

Dear Mr. Rossati, Ms. Henesy, and Mr. Serge:

I am writing to alert you of incidents involving child entrapment in home recliners, including a recent fatal incident in a motorized recliner. CPSC staff¹ requests that a voluntary standard committee establish performance standards to address these hazards.

Although staff is aware of an industry letter containing guidance effective January 1, 1997, staff is unaware of a published consensus standard that specifically addresses recliner entrapment. Staff has identified the following voluntary standards and standard development committees that cover safety aspects of household furniture, including recliners:

1. UL 962, HOUSEHOLD AND COMMERCIAL FURNISHINGS, contains provisions that address reclining mechanisms and stability of products with a foot or leg rest.
2. ANSI/BIFMA X5.4-2020, PUBLIC AND LOUNGE SEATING, includes provisions to address legrest durability, legrest strength, and recliner pinch points and stability. However, staff is unsure if manufacturers of home furniture are aware of the provisions in this standard.
3. ASTM F15.42 is the Furniture Safety subcommittee under F15 on consumer products. ASTM does not currently publish a voluntary standard for consumer recliners, but this appears to be the committee for which this request is most aptly suited.

I have enclosed thirteen incident narratives, including 7 fatalities, that involve a child between 8 months and 5 years old, occurring in 2011 through 2021 and reported to CPSC on or before November 10, 2023. Staff is aware of one additional fatal incident² that occurred in 2022 involving a recliner's lift mechanism. These incidents demonstrate two different hazard patterns:

1. Entrapment in the foot support lift mechanisms beneath the recliner, which is compounded by motorized lift mechanism.
2. Entrapment related to the movable foot support.

Motorized mechanisms

In May 2022, an 11-month-old was entrapped underneath a motorized recliner and crushed when an older sibling "playing with the buttons" closed the foot rest on him. In review data, we found an additional fatality³ involving a motorized massage recliner.

¹ The views expressed in this letter are those of CPSC staff. They have not been reviewed or approved by, and may not reflect the views, of the Commission.

² <https://www.saferproducts.gov/PublicSearch/Detail?ReportId=3760094>

³ Incident #5 in the enclosure



Lift support mechanisms

Six of the incidents attached involve a child's head, legs, or fingers entrapped by parts of the recliner.

Foot support

Two deaths (#6 and #10) involve a child pinned to the floor when the footrest was lowered. Staff was unable to determine whether either recliner was motorized or not. An additional four incidents, two fatal (#11 and #13), involve a child entrapped in the opening between the footrest and the occupant seat. This particular hazard pattern was first identified by CPSC in 1985⁴, and a 1996 recall⁵ states "The furniture industry's guidelines for recliners, established in 1988 by the American Furniture Manufacturers Association, specify that openings between the upholstered seat and leg rest should measure five inches or less." Staff has been unable to identify a current voluntary standard that addresses this gap nor the anthropometric or developmental basis for this recommended dimension.

Staff requests that your voluntary standards organizations review the enclosed incident data and consider requirements to address these hazards to children. Staff is particularly interested in exploring steps to prevent the recliner closing on an infant/child while still retaining the utility of the product for consumers that are older and/or have disabilities. Please let me know if you are aware of other standards organizations that would be appropriate to address this hazard, and also when you have scheduled a subcommittee meeting to discuss as I would be more than happy to attend and provide assistance.

Sincerely,

Hope E J. Nesteruk
MecRecSports Program Area Risk Manager
Office of Hazard Identification and Reduction

Enclosure: Table of recliner-related entrapment incidents

CC:

Molly Lynyak, ASTM F15 Staff Manager
Bill Purdue, AFHA Vice President Regulatory Affairs
Jacqueline Campbell, CPSC Voluntary Standards Coordinator

⁴ <https://www.cpsc.gov/Newsroom/News-Releases/1985/CPSC-Warns-Parents-About-Child-Accidents-In-Recliner-Chairs>

⁵ <https://www.cpsc.gov/Recalls/1996/cpsc-golden-chair-and-allen-manufacturing-announce-recliner-chair-recall>

Recliner_Related Incidents 01/01/2011 to 12/31/2021* Ages 8 months to 5 years old

*Based on reports entered into CPSC's CPSRMS database extracted on November 10, 2022.

Disclaimer: CPSC does not guarantee the accuracy, completeness, or adequacy of these data particularly with respect to information submitted by people outside of CPSC. This spreadsheet was prepared by CPSC staff, has not been reviewed or approved by, and may not necessarily reflect the views of the Commission. Pursuant to 17 U.S.C. § 105, there is no copyright in works of the U.S. government. Therefore, this material is in the public domain and may be freely copied or reprinted.

*NOTE: Incidents in **BOLD** indicate fatality

Incident #	Document #	Task #	Date	Age/Sex	State	Narrative
1	I11B0179A		09/11	2 YOF	CA	<p>The subject, a 2 year old baby girl, resided with her parents at [REDACTED]. She was found unresponsive by her 19 year old brother, who was babysitting her at the time. She was transported to one [REDACTED] hospital then another [REDACTED] hospital where she ultimately died.</p> <p>According to information received from both hospitals Medical records, the subject's parents stated that the subject was born [REDACTED]. The subject resided with her mother, father, and three older sisters in [REDACTED]. On 9/2011 [date redacted] at about 1100 hours, the subject was at her home being cared for by her 19 year old brother, who was also taking care of his own 10 month old child. The brother was sitting on a recliner chair what was extended and changing the diaper of the 10 month old child, when the subject crawled underneath the chair. The brother asked the subject to come out, but she did not. When the brother was done changing the child's diaper he helped the subject out from under the chair. However at this time he found the subject lodged between a bar under the chair and the chair itself. When he pulled the subject out she was not breathing and appeared to be dead. The brother went to the neighbor's house to call 9-1-1 as there was no phone at the subject's home. Paramedics arrived to find the subject asystolic and immediately transported to [REDACTED] Hospital, arriving at REDACTED. She was intubated, medications were administered, and pulse was regained at about [REDACTED]. Ct's showed diffuse cerebral edema. Her pupils were fixed and dilated and there was minimal response to pain. She was transported to [REDACTED] Medical Center for advanced care. She arrived at [REDACTED] Medical Center on 9/2011 [DATE REDACTED]. Examination at [REDACTED] Medical Center revealed no brainstem reflexes with the exception of agonal respirations. She did not withdrawal from pain, she had no cough or a gag, and her pupils were non-reactive. Urine toxicology was positive only for [REDACTED], which she had received in the emergency room. The subject's blood pressure dropped and on 9/2011 [DATE REDACTED] she died. This office was notified at [REDACTED], same date.</p>

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Incident #	Document #	Task #	Date	Age/Sex	State	Narrative
2	I1240340A		04/12	2 YOM	TX	<p>On 04/2012 [DATE REDACTED], my 2-1/2 yr old son got his middle finger in the left hand stuck in the mechanism that release the footrest pad in the bottom, when somehow he got the mechanism activated, while watching TV. My wife had to help him to get his little finger free from the mechanism, which looks like a scissor activated by springs, when the side toggle is activated. My son had to stay over nigh in a Hospital and had to have a 1-1/2 hr surgery on the morning of 04/2012 [DATE REDACTED] with a hand specialist to take care about his finger. Doctors told us the nail on this finger had to be removed during the procedure, since it got affected too. Doctors do not expect permanent consequences on my son's finger, but it was to early to say, anyway. We will need to take him for a follow-up visit this 04/2012 [DATE REDACTED]</p> <p>The reclined was bought at [REDACTED], located [REDACTED], back in [REDACTED]. The recliner part number [REDACTED] according to the original invoices.</p>
3	H1240219A		04/12	Unk	UT	<p>The consumer stated that the recliner chair has a space at the rear towards the floor. It also have steel bars below which allowed her 10 month old grandchild to climb through it and got stuck. She was unable to locate the child at first, but she discovered that the child's head was in a very delicate position which she was able to cradle and pulled the child to safety. The child received a minor scratch. No first aid or medical assistance was needed.</p> <p>The consumer is concerned if someone had been sitting in the chair this incident would have caused fatality. The chair is not covered which exposed the metal bars and drew attention to the child.</p> <p>The manufacturer or distributor was not contacted as yet.</p> <p>The consumer feels that this recliner chair is a safety hazard and should be reported.</p>

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4	H1250256A		05/12	UnkF 2 YO	IL	<p>On 5/2012 [DATE REDACTED] the consumer's two young children, ages 1yr old and 2 were sitting on their mother's lap in the reclining chair extended.</p> <p>As the 1 year old slid down from her mother's lap, her leg became caught between the recliner and the chair extension.</p> <p>The 1 year old did not sustain any serious injuries.</p> <p>Later the 2 year had the same incident with neither sustained major injury.</p> <p>Both of the children's legs were entrapped by the recliner.</p> <p>The retailer was contacted 5/2012 [DATE REDACTED] and she asked them to make the recliner not recline anymore. They advised her that she would have to return the item and pay a re stocking fee of \$200.</p> <p>The consumer feels that the recliner should be child proof or provided a covering when in the reclined position for children to not slide through. She also feels that she should not have to pay a re stocking fee on a unit that is a hazard to her young children.</p>
5	X13C0574A 131217CCC1216	131217CCC1216	05/13	4 YOM	FL	<p>A FOUR YEAR OLD MALE CRAWLED UNDER AN ELECTRICALLY OPERATED MASSAGE CHAIR AND HIS HEAD BECAME CAUGHT BETWEEN TWO METAL BARS UNDERNEATH THE CHAIR AND HE COULD NOT BE FREED BY HIS MOTHER AND HER FRIEND. UPON ARRIVAL OF EMERGENCY MEDICAL SERVICES THE VICTIM WAS PRONOUNCED DECEASED AT THE SCENE AND FIRE RESCUE HAD TO CUT THE CHAIR TO REMOVE THE VICTIM. THE CAUSE OF DEATH WAS DETERMINED TO BE BLUNT FORCE INJURIES TO THE HEAD.</p>
6	130905CCC2971		07/13	5 YOM	OH	<p>A 5-YEAR-OLD BOY SUFFOCATED WHEN HE WAS PINNED BETWEEN THE FLOOR AND THE FOOT REST OF A RECLINING CHAIR WHILE PLAYING WITH HIS TWIN BROTHER. THE RECLINER WAS LOWERED AND CLOSED BY HIS BROTHER ON HIS CHEST WHICH PREVENTED HIM FROM BEING ABLE TO BREATHE. THE CAUSE OF DEATH WAS COMPRESSIONAL ASPHYXIA.</p>

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7	H1560188A		06/15	5 YOF	VA	<p>The consumer stated that his 5 year old daughter was playing behind the loveseat.</p> <p>His daughter put her foot underneath the loveseat from behind. Her foot went in between two bars. When the loveseat was reclined, the two bars crushed her ankle.</p> <p>The consumer's daughter was treated at home for her injuries. Does not appear that she has a fracture.</p> <p>The consumer plans to contact the manf regarding the incident.</p>
8	I1730020A		03/17	3 YOF	CA	<p>My 3 1/2 daughter got stuck in recliner-- between the chair and the pop up foot rest. She was in the chair by herself and went to get out and slipped down in that space and the foot rest pushed in. She became stuck and I could not get her out while she cried. My husband was thankfully home and was Able to get her out. I've taken her to the doctor and hopefully she has not sustained any serious or life threatening injuries. The recliner was [REDACTED].</p>
9	I1880060A		07/18	4 YOM	CA	<p>My 4.5 year old grandson was getting out of my reclining chair and stepped onto the foot rest and his leg went right through the slats. We were not able to get his leg out and he screamed the entire time as any movement to the chair would 'tighten' up the foot portion and squeeze his leg more. I called 911 after 5 minutes and the firemen and paramedics needed two large crowbars to 'pry' the foot portion of the recliner open to release his leg. He had a severe contusion and needed x-rays to ensure there was no broken bones.</p> <p>The neighbor came to inquire and shared the same thing happened to his son and they no longer have a recliner.</p> <p>I believe the manufacturers should have a 'safety' release lever to prevent injuries such as this.</p>

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10	1927016367 X1990478A		05/19	8 MOF	MN	THE 8-MONTHS-17-DAYS-OLD FEMALE DECEDENT WAS FOUND WEDGED BETWEEN THE FLOOR AND AN ELECTRIC RECLINER'S FOOTREST THAT HAD BEEN POSITIONED IN THE LOWERED POSITION. CAUSE OF DEATH: A: ANOXIC ENCEPHALOPATHY AND TONSILLAR HERNIATION B: CARDIORESPIRATORY ARREST (RESUSCITATED) C: POSITIONAL/MECHANICAL ASPHYXIA. AUTOPSY: YES.
11	X2091008A		12/19	23 MOM	TX	1 YOM decedent was at home when his 3 YO sibling found him with his head wedged between the base of the recliner chair and the extended foot rest. 911 was called and CPR was performed by EMS until he was pronounced.
12	X2191052A 220621HCC3020	220621HCC3020	08/21	4 YOF	TX	ON AUGUST [DATE REDACTED] 2021, A 4-YEAR-OLD GIRL WAS SITTING ON THE COUCH, IN HER HOME, PLAYING ON HER ELECTRONIC DEVICE. THE MOTHER LEFT THE ROOM TO CARE FOR ANOTHER CHILD AND WHEN SHE RETURNED, THE GIRL WAS FOUND FACE-DOWN WEDGED UNDER THE RECLINED COUCH, UNRESPONSIVE, AND NOT BREATHING. THE OFFICIAL CAUSE OF DEATH WAS DETERMINED TO BE MECHANICAL ASPHYXIA. THE PRODUCT INVOLVED IN THIS INCIDENT IS A RECLINING COUCH.
13	2106275244	221102HCC3124	10/21	20 MOM	CA	Decedent: 1 YOM. Incident Description: Subject Became Trapped Between Footrest And Seat Of A Recliner Chair. Incident Location: Residential Institution. COD: ASPHYXIATION*ENTRAPMENT OF HEAD AND NECK. OSC: None. Addtl ICD Codes: T71. Autopsy? Yes. Manner of Death: Accident.