

Background Paper: Baby walkers

In countries where baby walkers are used there has long been controversy about their risks and benefits. Baby walkers are a non-essential nursery product made of a seat surrounded by a rigid frame which is set on wheels. A baby too developmentally young to walk can move rapidly around a room by pushing against the floor with its legs while seated upright. Most walkers also have a tray with toys or rattles attached, and many can be compacted for portability.

Baby walkers are often used by parents and caregivers for children between 5 to 15 months of age. Most parents have the impression that the baby walker is a safe place to keep children entertained while they attend to other tasks, or they believe the walker will help a baby learn to walk. However, despite their name, baby walkers do not help a child learn to walk, in fact, use of a walker can inhibit walking ability.¹ Babies who used walkers scored lower on locomotive development tests than babies who did not use walkers.^{2,3,4} Furthermore, use of a baby walker puts a baby at increased risk of injuries, which almost always occur to the head. Given the high rate of injuries combined with their lack of tangible benefit or necessity or useful for child-rearing, and the wide availability of safer alternatives,⁵ many medical and injury experts have questioned why they are allowed to be sold at all.^{1,4, 6,7,8}

Injuries associated with baby walkers

Almost all baby walker injuries occur to the head, whether related to a fall, collision, or pull-down injury.⁹ The most common scenarios include falls on stairs, collisions with furniture, walls or people, or pulling something down on top of themselves, such as an electrical appliance, hot beverage or household object.

Falls

Baby walkers cause a disproportionately high number of falls, particularly on stairs. Falls down stairs in walkers are a leading cause of head injuries to children.^{4,10} Falls down stairs account for nearly 80% of baby walker injuries in France,⁶ a figure consistent with worldwide available data.^{4, 11}

Falls in baby walkers tend to be more dangerous because (a) a baby in a walker is top-heavy and will most likely tip over, leaving the head more vulnerable to

impact, and (b) the baby is unable to free himself from the walker or to fall naturally,¹ (and (c) the speed and momentum the baby can generate in a walker causes harder impacts.⁴ Even homes without stairs pose risks, as walkers can tip over when they collide with objects laying about, furniture, or uneven flooring.¹²

Burns and scalds

Burns and scalds account for approximately 5% of baby walker injuries; however, they tend to be the most severe, accounting for over 40% of baby walker injuries requiring hospitalisation.¹¹ Burns and scalds in baby walker injuries almost always occur on the face and chest, and are a devastating, painful injury with long term impact on the child and family. Most baby walker related burns and scalds occur when the child pulls a kettle, pot or hot drink onto itself, or tips into a heating source such as a heater, stove, or fire place.¹³

Babies placed in baby walkers are at a higher risk of burns and scalds because they sit higher and are able to reach much farther, and these injuries are often made more serious by the fact that the child can not move or turn away from the heat source while trapped in the baby walker. A Welsh study showed that 25% of children treated in the burns clinic had been using a baby walker at the time of injury. In A UK study, at least 10% of infant burn victims had been in a baby walker, with burns and scalds severe enough to require an average of a 20 day hospitalisation.¹⁴

Poisonings

Baby walkers have also been identified as increasing the risk of poisonings and toxic ingestions. As with burns and scalds, this is due to the extended reach a baby achieves while in a walker. A study in Australia found baby walkers to be the second most common factor in infant poisonings.¹⁵ One American study of toxic exposures in infants showed baby walkers to be the most common factor. Common culprits include plants, alcoholic beverages, household chemicals, and perfumes and cigarettes.¹⁶

Other types of injuries

Other types of injuries which have been reported while in a baby walker include submersions and drownings, spinal cord injury, broken teeth, ocular injuries, strangulation and finger pinching.⁴

Prevention

Many types of active and passive prevention measures have been tried in relation to baby walker injury reduction.

Warning labels

Warning labels have proved to be an ineffective strategy to prevent injury. Studies show that even informed parents are still likely to use a walker.

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 - Fax +31 20 511 45 10
secretariat@childsafetyeurope.org - <http://www.childsafetyeurope.org>

ANEC – Raising standards for consumers
Av. de Tervueren 32, box 27 , B-1040 Bruxelles, Tél.: +32 2 743 24 70 - Fax: +32 2 706 54 30
anec@anec.eu - www.anec.eu

Therefore, warning labels alone are not likely to reduce injury.⁴ Furthermore, warning label requirements of EN 1273:2005 provide only general time limitations, supervision, and baby weight guidelines, and exclude mention of specific risks.

Supervision

Diligent supervision alone is not likely to reduce injury because the rate of mobility, which can reach speeds of 1 metre per second, is faster than an adult can react to prevent the injury. In fact, in over 75% of injuries, adults witnessed the injury and could not prevent it.⁴

Education

Because parents falsely assume that a baby walker is good for a child's development, and are under-informed about the injury risks, it is important to educate them and to suggest safer alternatives.

However, education as a stand alone measure is not sufficient.¹⁷ Although an overwhelming majority of paediatricians are against the use of baby walkers, they report that it can be difficult to persuade parents against their use.¹⁸

In one follow up study of infants who had been treated in hospital after a baby walker injury, two-thirds of the parents had still used the walker after the incident, and 50% of the parents who had been instructed to install stair gates had not done so.¹⁸

A UK survey indicated that approximately half of health visitors discuss baby walkers at home visits, but tended to do so at the 6 to 9 month visit. An earlier intervention effort, before the child is old enough to be put in a walker, may be more effective in discouraging their use.¹⁷

Standards

EN 1273:2005 contains measures to prevent falls down stairs through one of two options: making the walker wide enough that it does not fit through a standard doorframe, or installing an automatic brake mechanism which will activate when one wheel loses contact with the floor. EN 1273:2005 contains measures similar to a standard which was implemented in the United States 11 years ago, where 25,000 baby walker injuries were occurring annually.⁹ Shortly after implementation of the American standard, baby walker injuries there reduced by 76%. However, other factors were likely significant in this reduction, including a campaign against baby walker use by the American Academy of Pediatrics, and the huge popularity of a new safer alternative, stationary activity centres (which are like baby walkers, but without wheels). Despite the reduction in stair fall walker injuries, between 4,000 to 5,000 walker injuries are still occurring annually in the United States.⁴

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 - Fax +31 20 511 45 10
secretariat@childsafetyeurope.org - <http://www.childsafetyeurope.org>

ANEC – Raising standards for consumers
Av. de Tervueren 32, box 27 , B-1040 Bruxelles, Tél.: +32 2 743 24 70 - Fax: +32 2 706 54 30
anec@anec.eu - www.anec.eu

It has yet to be seen if the EU standard EN 1273:2005 will be consistently applied in Europe or lead to a significant reduction. The 2008 tests performed by the Swedish Consumer Agency on baby walkers (in which over 50% failed stair fall tests) indicated that significantly more enforcement and market surveillance is needed. Furthermore, it is important to remember that these measures do nothing to prevent the serious injuries caused by pulling down dangerous items or colliding with objects. These continued risks which are unaddressed by standards were among the primary factors that influenced Canada to ban baby walkers completely.¹¹

Bans

There is no question that an enforced ban on baby walkers would be the most effective means of preventing baby walker injuries. As a non-essential nursery item with many safer alternatives, removing baby walkers from the marketplace would not have a negative impact on families or consumers. The European Child Safety Alliance and ANEC would not be against a ban were the European Commission to propose one. Yet given that the European standard is only just being implemented, and therefore that the effectiveness of the standard in reducing injury can not yet be analysed, we recognise that a ban is not at this time legislatively viable.

Conclusions

Based on the volume of medical literature and data regarding baby walker injuries, clear conclusions regarding risks and prevention strategies can be made. Because this product is a non-essential nursery item with no benefit to the child, current European baby walker injury rates are not acceptable. If baby walkers are to continue to be sold in Europe, prevention measures must be applied, including early parental education, implementation and enforcement of the standard, further design modifications to reduce "reaching risk" injuries, and promotion of safer alternatives.

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 - Fax +31 20 511 45 10
secretariat@childsafetyeurope.org - <http://www.childsafetyeurope.org>

ANEC – Raising standards for consumers
Av. de Tervueren 32, box 27 , B-1040 Bruxelles, Tél.: +32 2 743 24 70 - Fax: +32 2 706 54 30
anec@anec.eu - www.anec.eu

References

1. Sabir H; Mayatepek E; Schaper J et al. Baby walkers: an avoidable source of hazard. *Lancet* 2008; Vol 372: p. 2000.
2. Siegel, AC, Burton RV. Effects of baby walkers on motor and mental development in human infants. *Journal of Development Behaviour Pediatrics*. 1999; 20:355 – 361.
3. Garrett M, McElroy AM, Staines A. Locomotor milestones and baby walkers: cross-sectional study. *British Medical Journal* 2002; 324: 1494.
4. American Academy of Pediatrics. Injuries associated with infant walkers. *Pediatrics*. 108, No. 3 September 2001.
5. DiLillo D, Damashek A, Peterson L. Maternal use of baby walkers with young children: recent trends and possible alternatives. *Injury Prevention* 2001; 223 – 227.
6. Claudet I, Federici S, Debuisseseon C et al. Baby walker use: an unsafe practice. *Arch Pediatrics* 2006 Dec: 1481 – 5.
7. Emanuelson, I. How safe are child care products, toys and playground equipment? A Swedish analysis of mild brain injuries at home and during leisure time 1998 – 1999. *Injury Control and Safety Promotion* 2003, Vol 10, No. 3, pp. 139 – 144.
8. Al-Nouri L; Al Isami. Baby walker injuries. *Annals of Tropical Paediatrics* 2006. 26, 67 – 71.
9. Fiala, Franz. Baby walking frames: Why EN 1273:2005 'baby walking frames – Safety requirements and test methods should become a European standard. ANEC, June 2008.
10. Dedoukou, X; Spyridopoulos T; Kedikoglou S; et al. Incidence and risk factors of fall injuries among infants: A study in Greece. *Arch Pediatric Adolescent Medicine*. Vol 158 October 2004, 1002 - 1006.
11. Health Canada. Board of review inquiring into the nature and characteristics of baby walkers. June 2007. Available online at: <http://www.hc-sc-gc-ca/cps-spc/child-enfant/equip/walk-marche/overview-apercu.html>.
12. Mayr, J; Gaisl, M; Purtscher, K; et al. Baby walkers – an underestimated hazard for children?. *Eur J Pediatr* (1994) 153: 531-534
13. Cassell, OC; Hubble M; Milling M; et al. Baby walkers – still a major cause of infant burns. *Burns* 1997, 23, 451 – 53.
14. Meyer, M. "Baby-walker" frames: a preventable factor in infant burns. *Burns* 1988; **14**:145–6.
15. Gaudreault, PM; McCormick, M; Lacouture, P; et al. Poisoning exposures and uses of ipecac in children less than one year old. *Annales of Emergency Medicine* 15, 808-10.
16. Mroz L; Krenzelok E. Examining the contribution of infant walkers to childhood poisoning. *Vet Human Toxicology* 2000. 41 (1): 39 – 40.
17. Kendrick, D; Illingworth, R; Hapgood, R; et al. Baby walkers -health visitors' current practice, attitudes and knowledge. *Journal of Advanced Nursing* 2003; 43 (5): 488-495
18. Rhodes K, Kendrick D, Collier J. Baby walkers: paediatrician's knowledge, attitudes, and health promotion. *Arch Dis Child* 2003; 88: 1084 – 85.

The European Child Safety Alliance is a Programme of EuroSafe and is hosted and supported by the Consumer Safety Institute in the Netherlands.

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 - Fax +31 20 511 45 10
secretariat@childsafetyeurope.org - <http://www.childsafetyeurope.org>

ANEC – Raising standards for consumers
Av. de Tervueren 32, box 27 , B-1040 Bruxelles, Tél.: +32 2 743 24 70 - Fax: +32 2 706 54 30
anec@anec.eu - www.anec.eu