

CHILD INJURIES ASSOCIATED WITH  
NURSERY FURNITURE

by

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**Abstract:**

The aetiology of nursery furniture related injuries is described based on information from the National Injury Surveillance and Prevention Program, Victorian child death data, and Australian and overseas Standards for nursery furniture.

The six major categories of nursery furniture involved in injury were strollers and prams, baby walkers, high chairs, changing tables, cots (excluding portables) and baby exercisers (bouncinettes). Follow-up studies for strollers, prams and high chairs have commenced to ascertain if restraints were available and used. An exposure study is recommended for baby walkers, to determine the injury rate in terms of exposure.

Recommendations are made in relation to design and Standards, and also for the provision of information to parents and care givers regarding safe design and use of nursery furniture.

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**Key Words:**

Nursery furniture, injuries, child, infant, design, standards, homesafety

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# Preface

This report forms part of a research project entitled "Child Accident and Injury Prevention Research in other than Road Accidents", which is funded by the Victorian Health Promotion Foundation.

Data was made available to the project by The Consultative Council on Obstetric and Paediatric Mortality and Morbidity, the Victorian Injury Surveillance System, and the National Injury Surveillance and Prevention Program. Without the availability of this data, this project would not have been possible. The Child Safety Library, Royal Children's Hospital Melbourne also made its resources available to the project.

The participation of the project's Advisory Committee members and their organisations is gratefully acknowledged. They are:

- Dr Peter Vulcan (Chairperson): Monash University Accident Research Centre
- Ms Erin Cassell: Victorian Health Promotion Foundation (Mr Adrian Nye - to November 1989)
- Dr Brian Fildes: Monash University Accident Research Centre
- Ms Colleen Heffernan: Monash University Accident Research Centre
- Ms Lyndall Horton-James: Child Accident Prevention Foundation (Ms Kaye Carter - to July 1989)
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- Dr Joan Ozanne-Smith: Monash University Accident Research Centre
- Ms Shirley Pinnell: Health Department Victoria (Ms Del Stitz - to July 1989)

The Monash University Accident Research Centre and the Victorian Health Promotion Foundation are pleased to have made available the research findings from this study to assist in the development of the Ministry of Consumer Affairs and Child Accident Prevention Foundation of Australia, Victorian Division's nursery furniture brochures "Safety Rules. A Nursery Furniture Guide". This report supports the concept and content of the brochures.

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# **1. OVERVIEW OF NURSERY FURNITURE RELATED INJURIES**

## **1.1 BACKGROUND**

Injury is the leading cause of death in Australia in the age range of 1 to 44 years, and also a leading cause of hospital admission (Better Health Commission, 1986). Between the ages of 1 and 14 years the proportion of child deaths which result from injury has risen to over 50% in recent years (Australian Bureau of Statistics, 1989). This parallels the situation in the United States (Committee on Trauma Research, 1985) and other developed countries.

The cause of injury can be understood as a chain of events, encompassing factors relating to the child, the agent of injury and the environment, which culminates in the injury. Intervention at any point along this causal pathway has the potential to prevent the injury.

## **1.2 INTRODUCTION**

This report examines injuries related to nursery furniture based on National Injury Surveillance and Prevention Program (NISPP) data, death data (Victoria), Australian and overseas Standards, and a review of the relevant literature. Where available information is insufficiently detailed to make recommendations for countermeasures, the scope for follow-up studies is identified. This report also underpins and complements a series of Nursery Furniture Brochures which have been developed by the Child Accident Prevention Foundation of Australia in conjunction with the Victorian Ministry of Consumer Affairs.

The major features of the injuries investigated in this study are that they are product related and that they occur almost exclusively in the first three years of life. Product-related injuries may be grouped into four types (Australian Consumers' Association, 1989):

1. injury related to physical failure of the product
2. injury related to inadequate design of the product
3. injury related to inadequate instructions
4. injury not influenced by any shortcomings in the product (e.g. misuse)

These categories will be referred to throughout this report, since they have clear implications for the appropriate points of intervention to prevent injuries.

According to the Australian Consumers' Association (1989), only 0.5% of all injuries to children recorded in the NISPP system are directly related to physical product failure. However, nursery furniture is responsible for 5% of these cases.

Australian Standards apply to several items of nursery furniture: Prams and Strollers (1989), Harnesses for Prams and Strollers (1989), Cots for Household Use (1983), Carry Cots and Stands (1978), Folding Portable Cots (1978), and Child Barriers for Domestic Premises (1976) (Standards Association of Australia, 1976, 1978, 1983, 1989; Standards Australia, 1989). All of these standards are voluntary at present. In addition, British Standards are available for High Chairs (1986), Baby Walking Frames (19710) and Rigid Sided Playpens (1973) (British Standards Institution, 1970, 1973, 1986). However, the presence of standards does not ensure product safety. The President of AB AKTA, a Swedish child safety product manufacturing company, recently warned that while

manufacturers will produce to standards (not always confirmed in Australia), if standards are static, products will not improve (Bell, 1989). The dates of some of the above standards should be noted in the light of this comment, though some have recently undergone or are currently undergoing revision and up-dating. It should be noted that no Australian or British Standards are available for baby change tables or baby exercisers (bouncinettes).

In this study of nursery furniture, an analysis was undertaken of the whole NISPP data base for children aged 0-3 years, as at May 1989. This allowed nursery furniture related injuries to be examined within the broader perspective of injuries to this age group. The analysis aimed to determine priority problems, and as far as possible details of the circumstances leading to injury. In addition to investigating the most frequent and most severe nursery furniture related injuries, some attention was also given to other nursery furniture injuries where simple countermeasures could be applied. Nursery furniture which performs a preventive function was also briefly examined.

Some analyses of Victorian Injury Surveillance System (VISS) data were also undertaken to determine whether Victorian trends were reflected in the national data.

### **1.3 RESULTS**

Results of the NISPP analysis indicated that baby equipment, including nursery furniture, was associated with 6% of total injuries in the age group 0-3 years (985 of 16,469 cases) , and 19% of injuries in the first year of life (588 of 3018).

A simple ranking was developed based on the frequency of particular types of baby equipment as a factor in the resulting injury. The rank order obtained for the predominant six baby products was:

1. strollers and prams: 287 cases (34 admissions; 71 significant treatment; 62 minor treatment)
2. baby walkers: 168 cases (20 admissions; 22 significant treatment; 64 minor treatment)
3. high chairs: 139 cases (1 death; 16 admissions; 24 significant treatment; 37 minor treatment)
4. changing tables: 94 cases (11 admissions; 12 significant treatment; 20 minor treatment)
5. cots (excluding portables): 60 cases (1 death; 6 admissions; 17 significant treatment; 16 minor treatment)
6. baby exercisers (bouncinettes): 32 (5 admissions; 3 significant treatment; 10 minor treatments)

An analysis of Victorian (VISS) data shows similar injury patterns for nursery furniture. Eighteen percent of injuries to children under 1 year of age are associated with nursery furniture and 6.3% of injuries in children up to 3 years of age. The ranking of specific items of nursery furniture as factors in injuries is as for the NISPP data.

Table 1 shows the order when these factors are re-ranked according to a measure of severity, based on the percentage of cases where the child died or was admitted to hospital.

**Table 1 Proportion of admitted cases/deaths by nursery furniture item**

<b>Furniture</b>	<b>Admitted</b>
Baby exercisers	15.6%
High chairs	12.2%
Baby walkers	11.9%
Strollers and prams	11.8%
Changing tables	11.7%
Cots	11.7%

A report from the Netherlands (Graaf, 1987) combined data from HASS (Home Accident Surveillance System, United Kingdom), NEISS (National Electronic Injury Surveillance System, United States) and PORS (Prive Ongevallen Registratie Systeem, the Netherlands) to determine priority product related problems for 0-4 year old children. The report derived priority lists similar to those above but which also included bunk beds. The major difference was that prams and strollers were not included in the six priorities set by highest hospitalisation rates in the international data, possibly reflecting different patterns of usage from Australia. The priority products involved in hospitalisations in the combined HASS, NEISS and PORS data were baby bouncers, baby walkers, bunk beds, changing mats and tables, cribs and cots, and high chairs (presented in alphabetical order). While bunk beds were also an important factor in the NISPP collection - 71 cases in 0-3 year olds, of which 16 (22.5%) were admitted - bunk beds are not specifically designed for this early childhood age group, unlike nursery furniture, and will therefore not be considered in this report.

Additional figures supplied by the Consultative Council on Obstetric and Paediatric Mortality and Morbidity, indicate that, between 1985 and 1988 (inclusive) in Victoria, there was a total of 9 deaths associated with nursery furniture. Six unintentional injury deaths were associated with cots and their environs. Of these, 1 child fell from the cot, 3 strangled as the result of the cot design or modification, including 1 whose clothing was caught on a wing nut. Another 2 children strangled as the result of accessing a blind cord and elastic attached to a toy, respectively. One death was associated with each of: changing table, high chair, and stroller. The relatively high injury mortality associated with cots is consistent with overseas reports (Graaf, 1987), and further emphasizes cot related injuries as an important target for injury prevention.

Detailed examination of injuries associated with each of the nursery furniture products identified as priority problems reveals some interesting patterns, which will be discussed below.

## **2 STROLLERS AND PRAMS**

(including also pushers, push chairs, buggies, carriages)

Injuries associated with these items of nursery equipment will be considered together and then separately to highlight both common features and differences.

## **Strollers and prams (data combined)**

Of the total of 287 cases associated with prams and strollers 215 cases (75%) were falls. Twenty-three of these cases involved the stroller or pram tipping or falling over, suggesting instability in design.

Entrapments of body parts occurred in 25 cases (8%). In 5 of these, the pram or stroller collapsed, presumably due to an insecure locking mechanism. Other entrapments were from miscellaneous mechanisms including 3 caught in wheels, 2 caught in frame, 1 caught in each of sunshade, hood, side of stroller, handle, hinge, and the remaining 10 were unspecified. Entrapments were to fingers in 19 cases, hands 3, arms 2, and leg 1.

A total of 10 cases were reported to involve collapse of the stroller or pram, or part thereof, including the five cases of entrapment discussed above. Steps, stairs or escalators were a factor in 20 cases. Siblings or other children were directly involved in 15 cases. While there may have been misuse in some of these cases, an adequate restraint may have protected the child.

Of the total of 287 cases, 52% were children aged less than 1 year, 37% were aged 12-23 months, and 11% were aged 24-35, months. One hundred and fifty-seven of the children were male and 130 were female.

The major locations where these injuries occurred were residential (45%), transport and areas used by transportation (22%), and areas of commerce (20%).

When these injuries are further disaggregated for falls (215 cases) according to the type of baby carrier, the following patterns emerge:

### **Strollers**

Fell out of stroller: 119 cases

Includes: fell out - not further specified: 47 cases  
stood up/climbed up and fell out: 29 cases  
stroller tipped/fell over: 10 cases  
went down/pushed down steps or slope: 7 cases

### **Prams**

Fell out of pram: 96 cases

Includes: fell out - not further specified: 45 cases  
stood up/climbed up and fell out: 16 cases  
pram tipped over/tipped up: 13 cases  
went down steps/slope and fell out: 5 cases

## **Discussion**

The most prominent feature of the above injury events was the apparent absence of, or failure to use, adequate restraints to prevent children from falling from strollers or prams. While the current Australian Standard (Standards Association of Australia, 1989) requires a simple crotch strap and lap restraint for strollers, and a means for preventing the child from falling out of the back of the stroller where the back reclines to greater than 150 degrees, there is no requirement for a shoulder restraint to be fitted to a stroller or pram. However, fittings for the attachment of a child's safety restraint are required.

The cases of entrapments and tipping-over suggest design faults.

In 1988, *Choice Magazine* tested 10 models of prams and strollers (Australian Consumers Association, 1989). It reported that 5 had entrapment hazards, 2 had inadequate brakes, 3 had insecure harnesses, 2 had insecure locking mechanisms and 1 was unstable. These findings appear to be consistent with the types of injury mechanisms described above.

Observations on inspection of strollers at the point of sale at two major department stores in Melbourne revealed that restraints on all models were lap only; some were not securely locking; and some did not attach to the frame of the stroller. No written information was available to customers about the features of the various models. However, the requirement for the supply of printed information by manufacturers in the recently released 1989 Standard should improve the latter situation over a period of time.

These observations, together with the *Choice* tests and the injury data are suggestive of a failure by manufacturers to comply with the voluntary Australian Standard on prams and strollers. It remains to be seen whether the 1989 modifications to the Standard will be effective in improving their safety.

### **Recommendations**

1. That a follow-up study be undertaken based on VISS data to determine whether restraints were not worn, or were inadequate in cases where children fell from prams and strollers. In fact, preliminary work has been completed for a follow-up telephone survey of parents of children who fell from prams or strollers over a 9 month period and were recorded in the VISS system. A questionnaire has been developed and details of contact families (families whose child fell from a pram or stroller who consented to follow-up on their VISS forms) have been made available to the Monash University Accident Research Centre, following approval by the Royal Children's Hospital Ethics Review Committee. Since there were only 18 suitable cases in nine months of VISS data, it may be necessary to extend this sample. The results of this follow-up study will determine what changes to the Australian Standard will be recommended in regard to restraints or harnesses.
2. That the requirements of the Australian Standard be incorporated into regulations applied to the import and sales of prams and strollers.
3. That information be provided about safety features of prams and strollers at the point of sale, and also distributed to parents by Maternity Hospitals and Maternal and Child Health Nurses. Distribution other than at the point of sale is particularly important as a means of informing parents who are purchasing or using second-hand prams or strollers.

### **3 BABY WALKERS**

Of the 168 cases of injury where baby walkers were a factor associated with injury to a child, 149 (89%) occurred during the first year of life and represented 5% of all injuries in this age group presenting to Emergency Departments of hospitals participating in NISPP. Of the total cases, 103 were male and 65 were female. As early as the first year of life, there was a large discrepancy between the proportions of male and female cases: 92 (62%) male, 57 (38%) female.

Analysis of the NISPP data indicated that injuries to children occur when they move into dangerous situations in the walker. They resulted from falls from one level to another in

more than half of all cases attending hospital. Most of these falls were down steps or stairs. Of the total cases (168), 96 fell down or against steps or stairs, a steep embankment, or other change in level. Of these 96, only 2 were greater than 12 months of age.

In a further 41 cases, the child fell out at the same level, including 7 cases where the walker tipped over and 2 where the walker collapsed or gave way. In 13 cases, the child in the walker was in a variety of other dangerous positions: 6 burns and scalds (including pulled down hot object), 2 ingestions of poisonous substances, 3 pulled down other objects.

Of the 168 cases, 30 children were admitted to hospital, an additional 22 received significant medical treatment, and 64 received minor treatment. Most injuries were to the child's head. Injuries sustained included 10 fractures, 10 burns, 23 concussions, and 34 lacerations. Of the 174 injuries specified, there were 153 injuries to the head and face.

## **Discussion**

Baby walkers are inappropriate for the use for which they were designed, or perhaps more correctly, they were designed for an inappropriate use. In addition, there may be design faults which allow tipping of the walker. There is no evidence that baby walkers are of any advantage to child development (Greensher and Mofenson, 1985).

The pattern of injury aetiology described by the NISPP data is similar to that described in the United States (Kavanagh and Banco, 1982; Greensher and Morfenson, 1985), Canada (Rieder et al, 1986) and the United Kingdom (Gleadhill et al., 1987; Meyer 1988).

While some countries (e.g. Great Britain) and the state of New South Wales in Australia, require warnings to be placed on baby walkers such as 'CAUTION: BABIES CAN MOVE FREELY IN THIS PRODUCT. MAINTAIN CAREFUL SUPERVISION. DO NOT ALLOW NEAR FIRES, RADIATORS OR STAIRWAYS' (Consumer Protection Act, NSW, Order, 1978), studies of the effectiveness of these warnings are still required (Rieder et al, 1986). A United Kingdom study indicates that few models comply with recommendations for warnings, similar to those for NSW, which are contained in the British Standard (Gleadhill et al, 1987).

Medical Associations have called for a ban on baby walkers in Canada (James, 1988). However, in 1984 no country was reported to have a product ban in place (Organisation for Economic Co-operation and Development, 1984).

There have been some attempts to study exposure to risk in baby walkers. A United States report indicates that in one year alone (1980) 1,000,000 baby walkers were distributed (Wellman and Paulson, 1984). However, because of their durability, baby walkers are frequently used serially by children in a family (Rieder et al, 1986). In one paediatric practice consisting of a heterogenous demographic mix, 77% of 195 patients aged 5-15 months who were surveyed used infant walkers. Of those, 31% had suffered injuries (Kavanagh and Banco, 1982).

## **Recommendations**

1. That exposure studies be undertaken in order to determine the risk of injury associated with baby walkers in Australia, with a view to recommending banning of the product if there is a relatively high ratio of injury to exposure. At present, little is known about how widespread the use of baby walkers is in Australia. Preliminary investigations of Tariff and imports cost data by the Victorian Division

of the Child Accident Prevention Foundation of Australia indicated that baby walkers are categorized as chairs and that the total import cost for chairs in 1988 was \$28,191. If all baby walkers are imported, this would suggest maximum sales of approximately 940 per year assuming a cost at importation of \$30. These figures would suggest that even over a 10 year period only 9400 walkers would be distributed in the community. If the potential exposure could be shown to be as low as these figures suggest, there could be a strong case for a product ban.

2. That warnings be issued about the use of baby walkers in positions where hazards are accessible, particularly steps and stairs, splits in level or change of surface e.g. where a concrete surface changes to a rough surface.
3. That child barriers be recommended for use in conjunction with baby walkers to protect the child from falls and other hazards, such as cords from hot irons, cups of tea or coffee, and poisons.
4. That supervision be recommended at all times when a child is using a walker.
5. That the design possibilities for a baby walker base which will not fit through standard doorways be explored. Such a recommendation is included in the 1989 Canadian draft regulations for walkers (James, 1988).

#### **4 HIGH CHAIRS**

Of the 139 cases of injury associated with high chairs in the NISPP data base, 50 were aged under 12 months, 66 were aged 12 - 23 months and 23 were aged 24 - 35 months. The sex distribution for injuries was more even than for many other injury types: 72 male and 67 female.

The great majority of injuries, 116 cases (83%), occurred when the child fell from the high chair. Of these children, 30 (almost 30%) were standing up or attempting to climb out of the high chair when they fell. For a further 78 children who fell from a high chair, it is not specified whether the child was attempting to stand up. One death resulted from a fall from a high chair onto a hard surface.

A further 12 children were injured when they were attempting to climb into the high chair, or pulled the high chair on top of themselves. In another case, a high chair was pushed on top of a baby by an older child.

In 6 cases, injury was associated with the tray section of the high chair being pushed out or collapsing. An additional two children fell from high chairs which collapsed, and one was injured when the high chair fell over, but the actual mechanism of injury was not given. Many of these mechanisms of injury are suggestive of physical failure or inadequate design, particularly in terms of stability.

In only 6 cases was a fault identified with the child restraint (strap broke or loosened). It would appear that no restraint, or an inadequate restraint was used in the remaining cases of falls.

## **Discussion**

Assessment of high chairs at the point of sale in two Melbourne department stores indicated that some varieties are light weight and relatively narrow based and would thus be expected to be unstable even without a child in the chair.

When a child is in the chair, instability would still be expected to be a problem due to the high centre of gravity.

No high chair was observed to have a restraint of any other design than a lap restraint, though a crotch strap was usually present. The lap restraints and attachment mechanisms were of variable quality, including some where it appeared that the restraint would loosen very readily. These observations support the hypothesis that no restraint, or an inadequate restraint was used when most injuries occurred.

Similar mechanisms of injury are reported in NEISS and Consumer Product Safety Commission reports in the United States (Kreifeldt, 1988). The same paper which refers to these reports provides background information for a postgraduate student assignment in engineering design, where students are required to develop a design solution to overcome these problems. Similar attention to child safety issues in training programs for engineers in Australia would have the potential not only to improve designs, but also to alert this important group of professionals to the need for child safety design in general.

Although few injuries are reported in relation to attachable high chairs (3 cases in the total data base), this may be due to a lower exposure rate rather than inherent safety of the product.

Youth chairs were associated with an additional 16 injuries, and potty chairs or training seats were associated with a further 4 injuries.

## **Recommendations**

1. That a follow-up study be undertaken using VISS data to determine whether children who fell from high chairs were restrained, and what went wrong if a restraint was used. As for the pram and stroller follow-up study, preliminary work has been completed and this study will be undertaken by the Monash University Accident Research Centre. It should be possible to make recommendations about restraints as a result of this study, such as, that a shoulder harness restraint be attached to the high chair, if current restraints are shown to be inadequate for their purpose.
2. Parents should be instructed on the need to use restraints, and to supervise the child at all times when in a high chair.
3. That an Australian Standard be developed for high chairs which requires stability, no sharp edges or projections, secure locking mechanisms to avoid collapse of the high chair or the tray, and effective restraining systems.
4. That parents be advised when purchasing a child's chair, that consideration should be given to the lesser risks associated with a low chair, due to the decreased potential fall height.

## **5 CHANGE TABLES**

The majority of injuries associated with change tables occurred during the first year of life: 82 of 94 cases (87%). Ninety-one percent of injuries resulted from falls. Only 4E;% of those presenting to hospital required treatment. The total cases were distributed equally between males and females.

At the point of sale, some change tables were observed to have a loose vinyl covered changing pad which could readily slip off the surface of the change table. Several models had no restraining device.

### **Recommendations**

1. That the design of change tables incorporate a restraining device, with an adequate locking mechanism.
2. That the changing surface be part of the structure of the change table, and that it consist of strong easily cleanable material firmly attached to the frame of the change table.
3. That the side edges be raised to prevent the child from rolling sideways off the change table.
4. That safety guidelines be made available to purchasers and users of baby change tables, particularly informing parents that children must be supervised constantly while on a change table because of the risk of falls.

## **6 COTS**

Of the 60 cases of injury associated with cots in the NISPP data base, 14 occurred in the first year of life, 38 in the second and 8 in the third. Thirty-four of the injuries were to males and 26 were to females.

Among cot injuries presenting to hospital, the most common injury determined from NISPP data is due to falls from the cot: 46 cases (77% of injuries). Most often falls occur when the child attempts to climb out (36% of falls), and occasionally by toppling over the side when standing up. Entrapments of body parts is the next most common cause of injury associated with cots.

Deaths have resulted from strangulation due to the presence of cords or strings in or near the cot, clothing pulling tight on protruding parts, or by head entrapments.

### **Recommendations**

1. That cots be required to be manufactured to conform with the Australian Standard (Revision of AS 2172- 1983, not yet issued).
2. That information about cot safety be available to parents at: the point of sale and elsewhere.
3. That parents be informed of the risks associated with cot modifications which may create entrapment hazards.

## **7 BABY EXERCISERS (BOUNCINETTES)**

A total of 32 cases were recorded in the NISPP data set. Thirty of these were injuries to children less than 12 months of age. Eighteen of the injured children were male and 14 were female. The high severity rate (15.6% admitted to hospital) is largely due to 12 cases in which the child in, the bouncinette fell from a height. Cases included falls from benches, tables, freezer, washing machine, and a bed.

The solution to this foremost problem with bouncinettes is to educate parents and care-givers never to place the child on, an elevated surface in a bouncinette. Possibly a warning on the actual bouncinette would alert parents to this risk.

## **8 SAFETY BARRIERS**

Safety barriers are not themselves associated with significant numbers of injuries. They are included for discussion in the context of nursery furniture because of their potential to prevent injury when baby walkers are used, and because an Australian Standard applies to them.

The Australian Standard for Child Barriers for Domestic Premises (1976) gives performance and safety requirements for barriers which can be fitted across openings (stairways or doorways) to prevent a child from passing, but which are removable to allow passage by older persons able to operate the locking mechanism.

Manufacturers and purchasers should make use of the SAA certification mark to identify conforming barriers. The Standard requires vertical bars to be a minimum of 70 mm and a maximum of 90 mm apart.

Although the Standard requires a height of 75 mm, there would be advantages in having a 90 mm barrier, since all 2 year olds and 50% of 3 year olds would be excluded by a barrier of this height (Nixon, Pearn, and Petrie, 1979). Although Nixon et al's study did not address a 75 mm barrier, it did show that 20% of 2 year olds could climb a 60 mm barrier.

## **9 PLAYPENS**

Few injuries are associated with playpens (11 in the NISPP database, of which none required hospital admission). However, like safety barriers, playpens may play a protective role in separating children from hazards. The child may be placed in the playpen or the hazard may be surrounded by the playpen (for example, a pot belly stove or the parent and ironing board).

While there is no Australian Standard for playpens, there is a British Standard which can be applied to the Australian situation for practical purposes.

## **10 NURSERY FURNITURE BROCHURES**

This analysis of injuries associated with nursery furniture indicates that much is known about the major risk factors. While the most effective solutions are likely to be design changes, probably brought about by standards and regulations, and possibly a product ban in the case of baby walkers, there is at least an interim role for the provision of information to parents and care-givers who use these products. An informed public is also more likely to assert pressure for the necessary design changes.

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