



## BUNK BEDS AND CEILING FANS IN RENTAL ACCOMMODATION

*Jeff Wilks*

From 21 October 2013 bunk beds supplied in short-term rental accommodation in Queensland (Australia) were required to meet mandatory safety standards. The purpose of the new Fair Trading (Safety Standards) Regulation 2011 covering bunk beds is to keep children safe while they are staying away from home.

Originally introduced in 2011 there has been a two year grace period to allow suppliers to make the transition to the new regulations. Compliance affects a wide range of tourism and hospitality suppliers such as holiday homes, school camps, student accommodation, tourist parks, and rental units.

According to the Office of Fair Trading, which is an agency of the Queensland Department of Justice and Attorney-General, bunk beds are involved in many preventable childhood injuries. Approximately 450 children are treated each year in Queensland hospital emergency departments as a result of an injury related to bunk beds. 85% of the injuries are the direct result of a fall from a bunk bed, with most injuries suffered by children aged between 5 and 9 years old.<sup>1</sup>

The introduction of these new regulations provides a timely opportunity to examine both the safety of bunk beds more generally in tourism and hospitality accommodation, as well as the related issue of ceiling fan safety. As the Queensland regulations address well identified medical evidence there may be implications for tourism and hospitality services in other jurisdictions.

### Inquest into the death of Elise Neville

Bunk bed safety was investigated by the coroner in the Inquest into the death of Elise Neville.<sup>2</sup> The coroner found that 10 year old Elise died from injuries sustained in a fall from a bunk bed, whilst sleeping. The top bunk did not have a railing around it and did not comply with the then non-mandatory Australian and New Zealand Standard. Elise fell from the bunk bed in rental accommodation while holidaying with her family in 2002.

The Australian and New Zealand Standard AS/NZS 4220 (the Standard) covering bunk beds was introduced in August 1994 but was not mandatory. The Ministerial Council for Consumer

1. Department of Justice and Attorney-General. *Rest easy, bunk bed safety. A compliance guide to bunk bed safety for short-term rental accommodation*. Brisbane: Office of Fair Trading.

2. Lock, J. Inquest into the death of *Elise Susannah Neville*, Coroner's Court, Brisbane, 12 September 2008.

Affairs (MCCA) agreed to make the Standard mandatory on 2 May 2002 but due to procedural difficulties this occurred on 1 November 2002. Elise Neville died on 9 January 2002. Her death has been a strong catalyst for reform of bunk bed safety.

The Standard provides that bunk beds must have a guard rail fitted to all four sides of the upper bunk with the top rail at least 160mm above the top of the mattress and the guardrail has safe gaps so it does not present as a head entrapment hazard. A review of the Standard was completed in 2003 and it was recently updated to:

- (i) provide for a warning that children under the age of 9 should not use an upper bunk; and
- (ii) require the warning to be visible on all bunk beds.

## Medical Evidence

The risk associated with the use of bunk beds, particularly for young children, has been documented in many countries.<sup>3,4</sup> In 2008 the Queensland Injury Surveillance Unit (QISU), an emergency department monitoring programme involving 14 hospitals, produced a detailed report on bunk bed injuries.<sup>5</sup> Data from a nine year period, 1999 to 2007, revealed a total of 1020 bunk bed related injuries. The main findings from the report are:

- Bunk bed related injury accounted for 1% of all injuries presenting to emergency departments in children aged 14 years and under
- The main injury mechanism was a fall (85%) with most falls being a high fall over one metre (77%)
- Peak age group for injury was 5-9 years
- Children aged 1-4 years were more likely to be injured at play rather than during sleep
- The most common body region injured was the head/face (42% of bunk bed related injuries)
- Ceiling fans are an additional hazard in Queensland accounting for nearly 10% of bunk bed related injuries.

A more recent report on consumer product-related injuries to children in Queensland identified bunk beds as a particular problem area.<sup>6</sup> Taking a two year sample of emergency presentations the report found the circumstances associated with injuries were due to: falls from bunk bed (76%), being hit by a ceiling fan (14%), striking against a bunk bed (5%), jumping from the bunk bed (3%), being pushed from a bunk bed (1%), being crushed by a person jumping off the bunk bed (1%), or other causes (1%).

The profile reinforces earlier findings that many bunk bed injuries are the result of children playing rather than sleeping. This is probably exacerbated in a holiday situation where children are excited and in a new and unfamiliar environment.

3. Mayr, J.M., Seebacher, U., Lawrenz, K. et al. Bunk beds – a still underestimated risk for accidents in childhood? *European Journal of Pediatrics*, 2000, 159: 440-443.

4. D'Souza, AL, Smith, GA & McKenzie, LB. Bunk bed-related injuries among children and adolescents treated in Emergency Departments in the United States, 1990 –2005. *Pediatrics*, 2008, 121: e1696-1702.

5. Queensland Injury Surveillance Unit. Injuries related to bunk bed use in Queensland. *Injury Bulletin*, No. 103 September 2008, 1-6.

6. McKenzie, K., Michel, J., Barker, R. & Strachan, D. *Consumer product related injuries in Queensland children. A snapshot of current problem areas for potential action*. Brisbane: Centre for Accident Research and Road Safety – Queensland, 2013.

## Bunk Bed Regulation

Under the new Fair Trading (Safety Standards) Regulation 2011 short-term accommodation is defined as 'accommodation supplied in trade or commerce for a period of 60 days or less'. The new law applies to people who provide short-term accommodation services, where the accommodation could be used by people under 16 years of age.

A bunk bed is:

- a) A set of components that are assembled or are ready for assembly into single beds or double/single combination beds which will be stacked one over the other; or
- b) Any single bed, other than a hospital bed, where the upper surface of the mattress base is at least 800 mm above the floor surface.

An interesting aspect of the bunk bed definition is that it includes a single bed if the height above the floor is such that a fall poses a very real risk of injury.

Key elements of the new regulations include: staff training, a dedicated compliance officer, regular reviews, complaints handling and mandatory reporting of serious injuries and deaths associated with bunk beds. In terms of the physical structure of bunk beds, the regulations provide for guardrails, construction of the mattress base, protrusions and gaps (to address issues of head injury, entrapment or strangulation hazards) and a securely attached safety ladder. Finally, the regulations recommend the following warning notice be prominently displayed on or near the bed (though it is not mandatory):

### WARNING

Top bunks and elevated beds are dangerous and are not recommended for children under the age of nine.

The maximum penalty for breaching the safety standard is A\$200,000 for an individual and A\$1.1 million for a body corporate.<sup>7</sup>

## Ceiling Fan Injuries

Given that up to 14% of emergency hospital presentations for bunk bed injuries in Queensland involve being hit by a ceiling fan it is worthwhile examining this hazard in more detail.

Searches of the medical literature reveal only a few specific reports on ceiling fan injuries in Australia. The most definitive is a review by Dr Joanne Potts in the *Medical Journal of Australia*.<sup>8</sup> Potts examined Emergency Department admissions to the Townsville General Hospital for the period 1 April 1995 to 31 March 1997. She identified 50 people presenting with injuries caused by ceiling fans. Of these, 22 injuries were to children younger than 15 years. Dr Potts found that some particular trends were noticeable. Seven injuries to children

7. Office of Fair Trading. Countdown to new rules for bunk bed safety. [http://www.fairtrading.qld.gov.au/AboutUs/Countdown\\_to\\_new\\_rules\\_for\\_bunk\\_bed\\_safety.pdf](http://www.fairtrading.qld.gov.au/AboutUs/Countdown_to_new_rules_for_bunk_bed_safety.pdf)

8. Potts, J. Ceiling fan injuries: the Townsville experience. *Medical Journal of Australia*, 1999, 170: 119-120.

involved bunk beds, with normal beds being associated with injuries to a further two patients. Injuries for the full sample included scalp lacerations only (21), head and forehead lacerations only (10), hand and forearm lacerations only (8) and compound fracture of the skull (4).

Dr Potts concluded that most of the ceiling fan injuries she reviewed could have been avoided, and in her opinion current safety guidelines for the use of ceiling fans were inadequate.

A report by the Queensland Injury Surveillance Unit detailing 16 injuries caused by ceiling fans over a 24-month period (January 1995-December 1996) was also cited by Dr Potts. In that report children under 15 years of age accounted for seven of the injuries, including the two incidents of a scalp laceration and a skull fracture requiring hospital in-patient admission. Ten of the injuries were sustained while standing on, or jumping off, furniture.

A summer alert by the Surveillance Unit in 1997 further highlights the fact that children are most at risk with ceiling fan injuries; that jumping on or from a bed was a common element in the injury; and that lacerations to the head were most prevalent.<sup>9</sup>

## Tourism literature

A search of the international tourism literature on ceiling fan injuries revealed only one definitive case. In *Brannan v Airtours Plc*<sup>10</sup> the plaintiff was injured by a ceiling fan while on a package holiday in Tunisia. During a crowded party night arranged by the defendant Airtours, Mr Brannan climbed onto a table in order to leave his allocated seat and go to the toilet. He walked into a revolving electric fan and injured his face. On appeal contributory negligence was assessed at 50%. The court held that the key to the assessment of the degree of contributory negligence in this case was Airtours' conduct in exposing Mr Brannan to a risk which it could easily have avoided and in a party setting for which it was responsible. Specifically, the company could readily have taken steps to eliminate the risk by relocating the tables so that they were not sited immediately underneath the fans.

## Safety responses

The general tourism literature shows that visitors in unfamiliar environments require additional assistance, as what is 'obvious' to a local person may not be obvious to them. Ceiling fans are a good example, especially for families coming from temperate climates to warm or tropical environments where ceiling fans are more common in rental accommodation. People on holiday are also often not aware of their surroundings – a state of anomie or disorientation that is well documented.<sup>11</sup> For children, the very real risks of injury with bunk beds and ceiling fans are clearly identified in the medical and product safety literature. Many of these injuries appear to be related to play and are probably exacerbated by the novelty and excitement of being away from home on holidays.

9. Queensland Injury Surveillance Unit. Fans – Ceiling and Pedestal: Season Watch. *Injury Bulletin*, 1997; 44, 3.

10. [1999] EWCA Civ 588.

11. See Tarlow, P.E. Crime and tourism. In: Wilks, J. et al. (eds.) *Tourism in Turbulent Times: Towards Safe Experiences for Visitors*. Oxford: Elsevier, 2006, 93–105.

The new Queensland Fair Trading (Safety Standards) Regulation 2011 draws attention to several safety interventions that are applicable across jurisdictions. Most important for bunk beds are the mandatory structural requirements of guardrails, secure ladders and the size of gaps to prevent clearly identified injuries from occurring in the first place.

While not mandatory, the recommendation that a prominently displayed alert notice be provided on or near each bunk bed warning of the risks for younger children, especially in relation to the top bunk, is a very valuable risk management initiative.

Finally, locating ceiling fans an appropriate distance away from beds, particularly bunk beds, is very important since reports by Dr Potts and the Queensland Injury Surveillance Unit have highlighted the frequency of injuries involving children standing on or jumping from furniture, especially beds. Relocating fans was recommended in *Brannan v Airtours*. These are very cost effective ways of reducing a now well recognised risk.

*Dr Jeff Wilks is Principal of Hotel Health Check, an Adjunct Professor of Law at Griffith University, Australia and Honorary Professor at the Hong Kong Institute of Education. He can be contacted at [www.hotelhealthcheck.com](http://www.hotelhealthcheck.com)*