

LETTER TO THE EDITOR

Pain in your buttocks? Check your heated car seat isn't burning you

Spinal Cord (2011) 49, 672; doi:10.1038/sc.2010.115;
published online 14 September 2010

Heated car seats are becoming increasingly common, and have been known to malfunction and become dangerously hot.¹ Most people can detect this excessive heat and switch off the heating; however, people with sensory deficits, including diabetic neuropathy, may not be aware of being burned. In such cases, it is often not until they arrive home and remove their clothing that they learn of their injury.²

A 50-year-old obese, diabetic, paraplegic woman presented to the emergency department with superficial partial-thickness burns, measuring 3 × 3 cm², over the ischial tuberosities on her medial buttocks. This was successfully treated with simple dressings over 4 weeks. The family had imported a large American vehicle to transport the patient and her wheelchair with improved convenience and comfort. This patient's main carer was her husband, a former nurse, and he paid particular attention to his wife's skin. A few days before the incident, the patient's daughter had commented about the passenger seat heating being too hot. The husband thus deduced his wife's burns were most likely sustained after using the heated car seats during an extended journey in cold weather.

The recognition of burns from heated car seats has increased. Two American law firms have identified 93 people, notably including para- and quadri-plegics, suffering burns from heated seats,^{1,3} and over 400 instances of defective car seat heaters in a variety of manufacturers' vehicles.¹ Thousands of vehicles were recalled due to such a problem, and injury claims made against manufacturers. The severity of this potential injury should not be underestimated: a 42-year-old paraplegic required several reconstructive procedures after sustaining severe second- and third-degree burns in the lower back and sacral regions.⁴ Another report described a 48-year-old paraplegic who had non-operative management of third-degree burns on his right buttock, and subsequently suffers with residual hyperaesthesia and pain.⁵ Formerly burned areas have reduced strength and elasticity, and this can consequentially increase the risk of decubitus ulcers and limit the time one can remain seated in one position.

Risk factors that may impair the skin's integrity and healing ability must be considered. Skin that is constantly moist, such as perineal skin subject to perspiration, urine or bowel incontinence, and the skin of those with poor nutritional status are at increased risk.⁶ Smokers can develop more severe wounds with slower healing times, and a thin

habitus decreases cushioning over bony prominences.⁷ The skin in elderly people is thinner and is thus more susceptible to damage.⁷

Defective heated car seats may quickly reach temperatures that can cause third-degree burns,¹ and 49 °C (120 °F) can cause such a condition within 10 min.⁸ Some have measured as high as 71 °C (160 °F).⁸ Initial management should include de-roofing of blisters to assess burn depth, and referral to a specialist burns unit may be appropriate. This case highlights the importance of awareness of this mechanism of injury and associated risk factors. Physically disabled patients, carers of those with stroke or mental disabilities, and parents should all be attentive to this potential hazard.⁵

Conflict of interest

The authors declare no conflict of interest.

KRM Rakowski¹, N Sivathanan² and N Sivathanan³

¹Brighton and Sussex Medical School, Brighton, UK;

²Queen Victoria Hospital, East Grinstead, UK and

³Barts and The London School of Medicine
& Dentistry, London, UK

E-mail: k.rakowski@doctors.net

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