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Steam inhalation and paediatric burns during the COVID-19 pandemic

Steam inhalation is traditionally used as a home remedy for common colds and upper respiratory tract infections. The evidence base of the practice is weak, with unproven theories that the steam loosens mucus, opens nasal passages, and reduces mucosal inflammation, or that the heat inhibits replication of viruses.^{1,2}

Scald injuries are the commonest cause of burns in children. Every day, more than 100 children present to the emergency department with burn injuries in the UK.³ Since lockdown measures were implemented last month, our Burns Centre at Birmingham Children's Hospital, Birmingham, UK, received a 30-fold increase in the number of scalds directly resulting from steam inhalation. The mechanism is most frequently accidental spillage of boiling water from a bowl or from a kettle. Children have occasionally been left unsupervised.

On average, our unit admits two patients per year with scalds related to steam inhalation. Over the past month alone, we have admitted six children with burn injuries due to this mechanism, with the youngest child aged 2 weeks, and the most severe case involving 8% of the child's total body surface area, requiring excision and skin grafting.

We surveyed Burns Services across England. With an 86% response rate, we found that 50% of centres have had an increase in scalds relating to steam inhalation. This correlated with regions of England with higher prevalence of COVID-19 (London and South East; West Midlands; North West). Two thirds of centres reported an association with Asian ethnicity (Indian, Pakistani, Bangladeshi, or Other).

The common misconception is that steam inhalation is beneficial in preventing and treating respiratory

tract symptoms. Social media and home-made tutorials from unverified sources have a role in misleading parents into practising this dangerous habit.

Studies have shown that there is no additional symptomatic relief from the use of steam inhalation therapy to treat the common cold.^{1,4} However, in a survey of general practitioners in 2016 showed that 80% of general practitioners have recommended steam inhalation as a home remedy to their patients.⁵

Steam inhalation is a hazard to children. Resulting scalds can ultimately lead to hospital admission, surgery, and life-long disfigurement. Parental education is paramount to preventing these injuries. Clinicians should actively discourage steam inhalation and educate parents about alternative treatments for their child.

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- 1 Singh M, Singh M, Jaiswal N, Chauhan A, Cochrane Acute Respiratory Infections Group. Heated, humidified air for the common cold. *Cochrane Database Syst Rev* 2017; **2017**: CD001728.
- 2 Tyrell D, Barrow I, Arthur J. Local hyperthermia benefits natural and experimental common colds. *BMJ* 1989; **298**: 1280-83.
- 3 Children's Burns Trust. Burns database. <https://www.cbtrust.org.uk/burn-prevention/database> (accessed May 13, 2020).
- 4 Little P, Moore M, Kelly J, et al. Ibuprofen, paracetamol, and steam for patients with respiratory tract infections in primary care: pragmatic randomised factorial trial. *BMJ* 2013; **347**: f6041.
- 5 Al Himdani S, Javed MU, Hughes J, et al. Home remedy or hazard? Management and costs of paediatric steam inhalation therapy burn injuries. *Br J Gen Pract* 2016; **66**: e193-99.



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