

Statement from the National Burns Network and the British Burn Association

The National Burns Network and the British Burn Association continue to support **20 minutes of cool running water as the gold standard first aid treatment for thermal burns**, applied as soon as possible and ideally within three hours of injury.

This recommendation remains supported by the strongest available clinical evidence. A 2022 systematic review and meta-analysis involving more than 11,000 burn patients concluded that there is “considerable evidence” that 20 minutes of cool running water significantly improves burn outcomes, including reducing the need for skin grafting and operative intervention. Direct human experimental evidence further supports this position: Wright et al. developed an in vivo human burn model and found that cooling burns at 16°C for 20 minutes modified burn progression and salvaged, on average, 25.2% of dermal thickness, demonstrating a measurable protective effect of cooling as first aid.

Large cohort studies in both adult and paediatric burn populations have additionally demonstrated that burns cooled with 20 minutes of running water are associated with:

- reduced burn depth,
- faster wound healing,
- fewer hospital admissions,
- and reduced requirements for skin grafting surgery.

While some recent international first aid guidelines acknowledge that shorter durations of cooling may still provide benefit where 20 minutes cannot be achieved, there is currently **no high-quality clinical evidence demonstrating that reducing burn first aid from 20 minutes to 15 minutes provides equivalent outcomes**. Existing evidence continues to identify 20 minutes of cool running water as the intervention associated with the best patient outcomes.

The London and South East Burns Network, National Burns Network and the British Burns Association therefore continue to recommend:

- **20 minutes of cool running water,**
- **within 3 hours of injury where possible,**
- **avoiding ice, iced water, creams, butter, or gels,**
- while taking care to prevent hypothermia, particularly in young children and patients with large burns.

This simple first aid intervention remains one of the most effective ways to reduce burn severity and improve recovery following thermal injury.

References

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