

**Hyperthermia (>37.9 C) while rewarming on cardiopulmonary bypass is potentially harmful and should be avoided.**

Class (Strength) of Recommendation	<b>Class III: Harm (Strong)</b>
Level (Quality) of Evidence	<b>Level B-R (Randomized)</b>

## Main Points

- Cerebral hyperthermia following cardiac surgery is associated with neurologic injury and dysfunction.
- Hyperthermia has also been associated with increased rates of mediastinitis and postoperative acute renal failure.
- Limiting the maximum target temperature during the rewarming following CPB can prevent cerebral hyperthermia without significant adverse events.

## Key References

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2. Grocott HP, Mackensen GB, Grigore AM, et al. Postoperative hyperthermia is associated with cognitive dysfunction after coronary artery bypass graft surgery. *Stroke.* 2002;33:537-541.
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4. Groom RC, Rassias AJ, Cormack JE, et al. Highest core temperature during cardiopulmonary bypass and rate of mediastinitis. *Perfusion.* 2004;19:119-125.
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6. Newland RF, Tully PJ, Baker RA. Hyperthermic perfusion during cardiopulmonary bypass and postoperative temperature are independent predictors of acute kidney injury following cardiac surgery. *Perfusion.* 2013;28:223-231.

7. Bar-Yosef S, Mathew JP, Newman MF, et al. Prevention of cerebral hyperthermia during cardiac surgery by limiting on-bypass rewarming in combination with post-bypass body surface warming: a feasibility study. *Anesth Analg*. 2004;99:641-646, table of contents

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