A debate has appeared in the recent literature about the optimum rewarming strategy (slow vs. rapid) for the best neuro-outcome. This rewarming period is associated with impaired cerebral oxygenation due to imbalance between cerebral oxygen supply and demand (1).

Also, during rewarming from cold CPB the brain can be exposed to periods of hyperthermia that can exacerbate excitotoxic neuronal injury. These periods of hyperthermia have been claimed by Murkin (2) to be responsible for 50% to 80% of the impaired neuropsychological dysfunction observed after cardiac surgery. Furthermore, the current temperature monitoring sites may grossly underestimate brain temperature. Grigore et al. found that slow rewarming maintaining no more than a 2°C difference between nasopharyngeal and CPB perfusate temperature, was associated with better cognitive performance 6 weeks after surgery than conventional rewarming that maintained a 4-6°C gradient between nasopharyngeal and CPB perfusate temperature (3). Therefore, it appears that slow rewarming may help in better preservation of brain function after cardiac surgery.