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## Review: hypercapnia and the critically ill

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## Comments

This thought provoking review of research into the effects of hypercapnia on organ systems in disease, makes a strong and logical case for clinical trials into this area. The authors argue convincingly, based on the available evidence, that hypercapnia may be responsible for the survival advantage attributed to "permissive hypercapnia" ventilatory regimes currently recommended in acute respiratory distress syndrome, rather than the reduced mechanical stresses these regimes inflict upon the injured lung. Their summary of the effects of hypercapnia, being anti-inflammatory, improving both oxygen supply to tissues and tissue oxygen consumption and protecting tissues from ischaemia and reperfusion insults, are well referenced. Their conclusion that hypercapnia should be "kept high, if necessary made high, and above all prevented from being low" except in patients with raised intracranial pressure, is persuasive, as are their logical thoughts on the direction of further research. In short, a highly recommended review, which is also praiseworthy for its concise nature.

## References

1. Laffey JG, Kavanagh BP: Hypothesis. Carbon dioxide and the critically ill - too little of a good thing?. Lancet . 1999, 354: 1283-1286.