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Diet-induced acidosis: is it real and clinically relevant?

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The concept of diet-induced 'acidosis' as a cause of disease has been a subject of interest for more than a century. The present article reviews the history of our evolving understanding of physiological pH, the physiological support for the concept of 'acidosis', the causes of acidosis, how it is recognised, its short-term effects as well as the long-term clinical relevance of preventative measures, and the research support for normalisation of pH. Further, we suggest differentiation of the terms 'acidosis' and 'acidaemia' as a way to resolve the conflation of these topics which has led to confusion and controversy. The available research makes a compelling case that diet-induced acidosis, not diet-induced acidaemia, is a real phenomenon, and has a significant, clinical, long-term pathophysiological effect that should be recognised and potentially counterbalanced by dietary means.