Med Hypotheses. 2013 Apr;80(4):389-90. doi: 10.1016/j.mehy.2012.12.026. Epub 2013 Jan 31.

The risk of lead contamination in bone broth diets.

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Abstract

The preparation and consumption of bone broth is being increasingly recommended to patients, for example as part of the gut and psychology syndrome (GAPS) diet for autism, attention-deficit hyperactivity disorder, dyslexia, dyspraxia, depression and schizophrenia, and as part of the paleolithic diet. However, bones are known to sequester the heavy metal lead, contamination with which is widespread throughout the modern environment. Such sequestered lead can then be mobilised from the bones. We therefore hypothesised that bone broth might carry a risk of being contaminated with lead. A small, blinded, controlled study of lead concentrations in three different types of organic chicken broth showed that such broths do indeed contain several times the lead concentration of the water with which the broth is made. In particular, broth made from skin and cartilage taken off the bone once the chicken had been cooked with the bones in situ, and chicken-bone broth, were both found to have markedly high lead concentrations, of 9.5 and 7.01 µg L(-1), respectively (compared with a control value for tap water treated in the same way of 0.89 µg L(-1)). In view of the dangers of lead consumption to the human body, we recommend that doctors and nutritionists take the risk of lead contamination into consideration when advising patients about bone broth diets.

PMID:

23375414

DOI:

10.1016/j.mehy.2012.12.026 [Indexed for MEDLINE]