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Variation of the omega-3 content of Australian food products

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Abstract

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Background

Omega-3 fatty acids, in particular long chain, are an essential nutrient in the diet though primarily obtained from marine sources. Omega-3 fatty acids have been linked to many diet-disease relationships and resultantly products containing these fatty acids are often recommended in dietary counselling. With the present ecological debate about sustainability of the seafood market, many food manufacturers have added omega-3 fatty acids to products which do not naturally contain them.

Objective

To determine the amount of omega-3 fatty acid in commercially available Australian food products.

Design

Manufactured non-marine products containing omega-3 were identified in three leading supermarkets. Products were only included if they did not naturally contain the fatty acid. Products were identified from nutrient content claims on the label referring to omega-3. The nutrition information panel was recorded for each product. Information was enhanced by review of manufacturer websites. Data on marine products were sourced from nutrient databases for comparison.

Outcomes

Fourteen products were identified in the supermarkets for which the reported omega-3 content varied from 5mg/100g (Margarine) to 1070mg/100g (Eggs). Canned Salmon, Mackerel and Green muscles contained the greatest amounts of natural omega-3. Variations in the weight measure used to report the fatty acid on the label were also identified (e.g. milligrams rather than grams).

Conclusion

There was large variation in the reported omega-3 content with many canned fish products (excl salmon) containing less than the fortified dairy and grain products. This provides challenges for consumers in selecting products with desirable levels. The reliability of this data would need to be confirmed with further chemical analyses.