

Trans* Fatty Acids – A Summary

The paper by Mary G Enig on *trans* fatty acid consumption trends in the United States has been highlighted in letters to the editor in this issue of the Journal. Enig had estimated that approximately 12.5 - 15.2 g/person/day of *trans* fatty acids are consumed in the United States. However this figure has been disputed by T H Applewhite whose own analysis suggests only 7.6 g per day. The difference seems to be a result of using multiple variables in calculating the content of *trans* fatty acids in consumer products available in American supermarkets. Similarly, M B Katan points out the discrepancy between disappearance or availability of fats and their actual consumption. In response to these comments, Enig has suggested that her consumption figures are more precise and definitely much higher than previous publications had indicated.

L S de Villers emphasizes the fact that prior to the hydrogenation of fats for the production of margarines and shortenings, only about 3% *trans* fatty acids occurred naturally in the diet, arising from dairy products. He also ponders on the thought that had hydrogenated fats been exposed to the same criteria of testing as pharmaceutical products or even saturated fats, they would never have been allowed on the market in the first instance.

Scott Grundy acknowledges the high consumption of *trans* acids in the American diet, derived mainly from hydrogenated vegetable oils, and suggests that *trans* acids may not be

entirely harmless to health. He cites the publication of Mensink and Katan. However he emphasizes that there is no direct evidence that *trans* acids are carcinogenic and promote tumour formation. Grundy indicates that hydrogenation of soya bean oil is carried out to reduce its content of linolenic acid, which is very prone to oxidation. In future, a possible means of reducing the hydrogenation of soya bean oil would be to cultivate genetic varieties of the bean that are lower in this fatty acid.

B J Holub requests a clear food labelling policy addressing the *trans* fatty acid issue. A clear distinction between *cis*-monoenes and *trans*-monoenes is required and the consumer should also be educated to look out for these components in the texts of labels. *Trans* fatty acids should also be stated quantitatively, just as in the labelling requirements for saturated fatty acids. A similar view is also expressed by F A Kummerow. He also suggests that the Department of Health, the industry and the consumer should take heed of the impact of continued high levels of *trans* acids in the American diet.

Mildred S Seelig, editor of the *Journal of the American College of Nutrition* hopes to continue publication of articles on the different food fats and their effects on health. The journal will solicit a review of saturated fats and specifically on those products termed 'tropical oils', *i.e.* coconut, palm and palm kernel oils.

Article Credit: Kalyana Sundram

* Summary of Material on *Trans* Fatty Acids appearing in the Journal of the American College of Nutrition, Vol. 10, No. 5 (1991)