

Retention of iodine from iodized salt and inherent food iodine in commonly used Indian recipes

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IDD is still a major public health problem in India and Universal salt iodization programme is recognized as an economical, convenient and effective means of preventing iodine deficiency disorders (IDD). However, information on the retention of iodine during cooking is scanty. There are also reports indicating that vegans have inadequate iodine intake while at the same time concerns are being raised on the universalization of iodized salt in the country. Therefore this study was undertaken to investigate the retention of iodine from iodized salt when added to the most commonly used Indian recipes as well as retention of inherent food iodine. The Mean \pm SD retention of iodine in 140 most common Indian recipes was $60 \pm 21\%$. Significant correlation ($r = -0.194$ $P < 0.05$) was observed between iodine retention and time of iodized salt addition to the recipe. The retention of iodine was observed to be minimum in shallow frying with oil ($52\% \pm 23\%$) and maximum in pressure cooking ($82.2\% \pm 6.2\%$). Iodine content in the recipes prepared with iodized salt showed that iodine content would be adequate to meet the daily iodine requirement while recipes prepared without iodized salt was very low ($2.9 \pm 2.3 \mu\text{g}/100\text{g}$). Results showed considerable iodine content in bread ($25.0 \mu\text{g}/100\text{g}$) and milk ($303 \mu\text{g}/\text{L}$) as a positive fallout of universal salt iodization. Retention of inherent food iodine (65.6 ± 15.4) and iodine from iodized salt in the same recipes was comparable. Thus, universal salt iodization programme remains the single most important source of dietary iodine for the Indian population. The study also provides baseline values for iodine content in bread, milk, and commonly used Indian recipes that can be used as an integral part of monitoring food supply post implementation of universal salt iodization in the country.

Biography

Longvah currently holds the post of Deputy Director (Senior grade) and heads the Food Chemistry Division at the National Institute of Nutrition, Hyderabad. He and his group are responsible for the Indian Food Composition Tables. He is the regional coordinator of SAARCFOODS. He is a member of the IUNS task force on "INFOODS – Food Biodiversity" and IUNS task force on "Traditional, Indigenous and Cultural Food and Nutrition". He is a member, ISHS Working Group on Underutilized Plant Genetic Resources. He has published over 45 papers in peer reviewed journals.

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