

Lipid composition of some commonly consumed traditional Nigerian dishes

1. O. O. Onabanjo^{*},
2. S. A. Sanni,
3. W. A. O. Afolabi,
4. O. O. Oyawoye and
5. O. O. Obanla

Article first published online: 24 SEP 2013

DOI: 10.1111/jhn.12157

© 2013 The British Dietetic Association Ltd.

Abstract

Background

Lipids in the diet have been associated with the rising prevalence of many chronic diseases. The present study aimed to provide information on total lipid, free fatty acids, triacylglycerol and cholesterol contents of some dishes consumed in northern, southern, western parts of Nigeria, as well as dishes generally consumed in all parts of Nigeria. This would result in a resource that would be used by nutritionists and dietitians in meal planning.

Methods

The present study is analytical in nature. The composite dishes included a blend of cereals, roots and tubers, legumes, fat and oil and vegetables and were analysed for total lipid, free fatty acids, triacylglycerol and cholesterol contents spectrophotometrically.

Results

Burabisko (a millet based dish) had the lowest free fatty acid (0.1 mg per 100 g) and cholesterol (1.9 mg per 100 g) contents, yam with eggs (7.1 mg per 100 g) and miyan-kuka with semovita (415.9 mg per 100 g) contained the highest amounts of free fatty acid and cholesterol, respectively. The total lipid and triacylglycerol content were lowest in gbegiri with eko (2.6 g per 100 g) and 3.1 mg per 100 g respectively. Stewed beans with fried plantain, however, had the highest total lipid (86.5 g per 100 g) content and yam with eggs had the highest triacylglycerol (122.5 mg per 100 g) contents. The moisture content of the dishes ranged between 59.68 and 81.73% in melon seed with vegetable soup and burabisko, respectively.

Conclusions

For the first time, we have provided the lipid profile of standardised traditional dishes consumed in Nigeria. These dishes contribute a significant proportion of lipids to the diet of Nigerians, which are essential for assessing the nutrient intake of Nigerians.

Keywords:

- cholesterol;
- dishes;
- lipid;
- Nigerian;
- total lipids;
- triglycerides