

FAT CONTENT OF POTATO CHIPS (FRENCH FRIES)

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A reduction in the fat content of fried foods could contribute to achieving the Australian dietary goal of decreased fat consumption (Commonwealth Department of Health 1981). A laboratory and retail study was therefore made of factors affecting the fat content of potato chips, a popular fried food.

Kennebec potatoes were used in the laboratory to test the effects of frying temperature, chip size, draining time and single- and double-frying on moisture and fat content of chips. Retail samples were obtained ready-cooked from 12 restaurants and 12 takeaway food bars, and frozen (15 types) from supermarkets, and analysed for moisture, fat, fatty acids and cholesterol (Wills, Balmer and Greenfield 1980; Wills and Greenfield 1982). Eleven of the frozen types were also analysed for moisture and fat after deep-frying according to the manufacturers' instructions.

The mean fat content of ready-cooked chips was 13.4 g/100 g \pm 3.0 (range 6.2 - 20.8 g/100 g), and of frozen chips 3.7 g/100 g \pm 1.0 as purchased and 15.0 g/100 g \pm 2.7 after finish-frying. The retail samples all contained cholesterol and, in the majority of cases, saturated fat, suggesting the predominant use of saturated animal fat in the industry. The laboratory studies showed that decreased chip size ($p < 0.05$) and double-frying ($P < 0.05$) were important factors increasing the fat content of chips, while varying frying temperature and draining time did not appear to influence fat content. Overall, common commercial practices for potato-chip preparation tended to increase fat content of chips by a considerable extent when compared with ideal laboratory practice.

COMMONWEALTH DEPARTMENT OF HEALTH (1981). J. Fd Nutr. 38 :111.

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