

Letter to Editor

Health impact of high fat, sugar and salt (HFSS) and poor nutrition foods

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Abstract

The evidence on the link between consumption of HFSS foods and increased risk and incidence of certain diseases such as type 2 diabetes, cardiovascular disease, certain cancers as well as contributing to high levels of obesity both for children and adults. Poor nutrition has a significant impact on health. It affects noncommunicable diseases, such as obesity, dental caries, cardiovascular disease and some cancers, as well as immune status and recovery from infection and common deficiencies like anemia, children and young people are overweight or obese. The effects of poor nutrition on non-communicable diseases build up throughout the life course. Food habits and taste develop at an early age. Childhood nutrition is affected by a wide range of factors.

Dear Editor

1. Healthy levels of consumption

Food Standards Agency (FSA) guidelines state adults should eat no more than 6g of salt a day-that's around one full teaspoon. Children 10 years and under should eat less. The FSA advices for fat and sugars at population level (5yrs and over) are [1]:

Saturated fatty acids (SFAs) is found in butter and lard, pies, cakes and biscuits, fatty cuts of meat, sausages and bacon, and cheese and cream. *Trans*-fats (*t*-fats) can be formed when oil goes through a process called hydrogenation, which makes the oil more solid. This type of fat, known as hydrogenated fat, can be used for frying or as an ingredient in processed foods. *Trans* fatty acids (*t*-FAs) constitute a significant health hazard and there for use levels should be regarded as guidance threshold levels for adverse health risk.

Although the population mean consumption of *t*-fats is under the threshold level, there are groups within the population who are consuming more (those who regularly eat fried fast-food) and these people may be already more likely to be at risk of cardiovascular disease (CVDs).

- Saturated fat – no more than 11% of food energy
- *Trans* fat: no more than 2% of food energy
- Total fat: no more than 35% of food energy
- NMES (added sugars) – no more than 11% of food energy

The UK National Diet and Nutrition Survey (NDNS) reports that on average the population consumes too much saturated fat, non-milk extrinsic sugar (added sugars) [2].

The key findings from state:

- Mean intakes of saturated fat exceeded the recommended level in all age groups. For example, mean saturated fat intake for adults aged 19 to 64 years was 12.7% food energy
- Mean intakes of *t*-fat provided 0.7% of food energy for children and adults aged 19-64 years and 0.8% for adults aged 65 years and over, thereby not exceeding the guidance threshold level2.
- Mean intakes of non-milk extrinsic sugars (NMES) exceeded the recommended level for all age groups, most notably for children aged 11-18 years where mean intakes provided 15.3% food energy.

2. Health impacts of overconsumption

It is well recognized that a poor diet (including high in fats, sugars and salt) is linked with increased risk of CVDs and some cancers (stomach and colorectal). A person with high salt levels is at risk of raised

blood pressure (BP) which increases the risk of heart disease and stroke. There is a relationship between raised salt consumption and subsequent risk of CVDs. The consumption of *t*-FAs from partially hydrogenated oils adversely affects multiple cardiovascular risk factors and contributes considerably to increased risk of cardiovascular health events. Excessive consumption of sugar has been linked to several metabolic abnormalities and adverse health conditions including diabetes and cardiovascular disease. The link between excess intake of sugar and obesity is more contentious as it is difficult to isolate individual contributing factors, although there is new evidence that intake of free sugars or sugar sweetened beverages is a determinant of body weight. The most consistent connection has been between a high intake of sugar sweetened drinks and the development of obesity and increased risk of type 2 diabetes [3-5].

3. Reduction in consumption improves health

Reducing salt intake reduces blood pressure in adults and children and lowers the risk of CVDs, stroke and coronary health disease in adults. This is critical because children with high BP often become adults with elevated blood pressure. Reduced salt intake reduces blood pressure and has no adverse effects in adults and children. Children and adults have found that reducing sugary drink consumption can lead to better weight control among those who are initially overweight. Decreasing sugary drink consumption in adolescents had a beneficial effect on body weight that was strongly linked with baseline BMI. A study in adults reported that replacement of caloric beverages with non-caloric beverages as a weight-loss strategy resulted in average weight losses of 2 % to 2.5%. Reduction in fat intake has also been shown to have an impact on health. Lowering total fat intake in adults compared with not lowering fat intake was associated with reductions in body weight, body mass index, and waist circumference with a similar effect in children and young people. A study reported that, if *t*-fat levels could be reduced to approximately 0.5% of total dietary energy intake, this would reduce the relative risk of death from cardiovascular disease by approximately 6%. The legislation or other measures to reduce dietary salt intake by 3g/day would prevent or reduced cardiovascular events. It is estimated that premature deaths could be avoided with a healthier diet. Evidence suggests that if people had adopted a diet equivalent to the less sugar salt, fats/ *t*-fats diet then the excess cardiovascular and cancer mortality would be removed [6-10].

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