

Fight against trans-fatty acids

Consumption of TFAs directly linked to cardiovascular diseases

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Hyderabad: There is a sense of urgency and a concerted effort has been launched by national and international government agencies and organisations in the field of public health to limit consumption of Trans-Fatty Acids (TFA) in our daily diet in the next few years.

The seriousness with which World Health Organisation (WHO) and Indian food regulatory agencies, including Food Safety and Standards Authority of India (FSSAI) are targeting food with trans-fat is understandable, given the direct link of TFA to cardiovascular ailments and deaths.

In India, trans-fatty acids are commonly known as Vanaspati, which is directly linked to causing heart diseases. In fact, according to WHO, every year TFA on an average causes an estimated 5 lakh deaths globally. In the first week of May, the WHO achieved a major feat when it convinced International Food and Beverage Alliance (IFBA) to work for elimination of industrially produced TFA from food supply chain by 2023. Last year the FSSAI has launched a campaign to eliminate use of Vanaspati in India by 2022 through active engagement with industries.

Obesity burden in India

(ICMR study in 2018)

Prevalence of abdominal and general obesity among Indians is high

AN ESTIMATED

13.5 cr
people have
GENERAL
obesity

15.3 cr
people have
ABDOMINAL
obesity

10.3 cr
people have
COMBINED
obesity



POINTS TO PONDER ON FAT (NIN SUGGESTIONS)

- Limit use of ghee, butter, especially Vanaspati as a cooking oil
- Choose low-fat dairy foods in place of regular whole fat dairy foods
- Eat fish more frequently (at least 100-200g/week), prefer it to meat, poultry and limit/avoid organ meats such as liver, kidney, brain etc.
- Egg has several important nutrients but is high in cholesterol. Limit the consumption to 3 eggs/week
- Egg white may be consumed in good amounts.
- Minimize consumption of ready-to-eat fast foods, bakery foods and processed foods prepared in hydrogenated fat
- Use of re-heated fats and oils should be avoided. Use fats and oils in moderation and consume varieties of foods to get good proportion of all fatty acids for optimal health benefits

So why Vanaspati is bad for us?

Vanaspati or Trans-fatty acids (TFA) are not natural and are prepared through an industrial process known as hydrogenation, which in simple terms is hardening or solidifying vegetable oils. TFA also occurs naturally but at very lower quantities in meat and dairy products from cattle, sheep, goats, and camels.

In India, Vanaspati is still used as a substitute for ghee in cooking and the preparation of bakery products, sweets and snack foods. These oils are most frequently found in baked and fried foods, prepared or pre-packaged snacks and food, and cooking oils and spreads. Initially developed as a replacement for animal fats such as butter, TFA are now increasingly utilised by industries because they provide longer shelf life to oils and food products. Moreover, TFA are far cheaper than animal fats and also change the texture and taste of food.

Industrially produced TFA were first introduced into the food supply in the late 19th and early 20th centuries with the invention of partially hydrogenated oils. Partially hydrogenated oils became more popular in the 1950s-1970s. However, by the late 20th century, an extensive body of evidence had accumulated from various studies on the negative metabolic effects of TFA as well as on the relationship between TFA intake and coronary heart disease.

TFA and its impact on health:

In the last few years, a series of international and national research papers have directly linked TFA to coronary heart diseases (CHD). According to Hyderabad-based National Institute of Nutrition (NIN), the daily intake of TFA should not exceed 1 per cent of energy intake. Doctors and researchers have also found that TFA causes a rise in LDL Cholesterol levels (Bad cholesterol) and lowers good Cholesterol (HDL). It also increases risk of developing heart disease and stroke and is associated with a higher risk of causing type 2 Diabetes.

According to the WHO, 'replacement of TFA with unsaturated fatty acids decreases the risk of CHD, in part, by ameliorating the negative effects of TFA on blood lipids. In addition, there are indications that TFA may increase inflammation and endothelial dysfunction'.

How much TFA is good?

WHO recommends that total TFA intake be limited to less than 1 per cent of total energy intake, which translates to less than 2.2 grams per day in a typical 2,000 calorie diet and elimination of industrially-produced TFA from the food supply is critical to achieving this aim. By decreasing the risk of CHD events and mortality, it will help reduce premature death from NCDs, one of the health targets of United Nations Sustainable Development Goals.

Elimination of industrially-produced TFA will also contribute to the creation of an enabling food environment which promotes healthy diets and help achieve the global nutrition and diet-related NCD disease targets.