S&T Governance

INDUSTRIAL TRANS FATTY ACIDS AND REGULATIONS IN INDIA

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Deep fried foods have high amounts of Trans Fatty Acids

MEDICAL experts are concerned with the death of young people due to cardiac arrest in India. Many of these deaths are being linked to the consumption of industrial or artificial Trans Fatty Acids. According to the World Health Organization (WHO), it is estimated that more than 5 lakh deaths occur every year globally due to intake of artificial Trans Fatty Acids.

Recently, the Food Safety and Standards Authority of India (FSSAI) declared the capping of trans fatty acids up to 3% by 2021 and 2% by 2022 in edible oils and fats through Food and Safety Standards Regulations (Prohibitions and Restriction on Sales). The WHO has also pledged to eliminate Trans Fatty Acids from our food by 2023.

Trans Fatty acids, commonly called trans fats, are the worst types of fats from the human health perspective which raise our 'bad' blood cholesterol (*i.e.* Low-Density Lipoprotein or LDL) and lower our 'good' blood cholesterol (*i.e.* High-Density Lipoprotein or HDL). High artificial Trans Fats diets increase the risk of cardiovascular diseases and heart attack.

The Trans Fats are formed during the industrial process in which hydrogen is added to vegetable oils. This process makes the oil solid at room temperature. The hydrogenation process makes the vegetable oil partially hydrogenated too. The partial hydrogenation process of vegetable oils is industrially very useful because the food made with this oil has relatively much longer shelf life. The partially hydrogenated oil is commonly used in deep frying because it does not need to be changed as often as other oils. The Trans Fatty Acids also occur in a few meats and dairy products naturally in a very small amount but it is not yet clear whether naturally occurring Trans Fats are beneficial or harmful to human health.

According to health experts, the manufactured variety of trans fat in partially hydrogenated vegetable oils have no known health benefits. Thus, it is recommended that the intake of trans fat should be as low as possible. In a healthy diet, approximately 20 to 35% of the calories should come from fats. It is suggested that the contribution of saturated fats in food should be less than 10%.

The US-Food and Drug Administration (FDA) declared that artificial Trans Fats are unsafe for health and asked the food-makers to eliminate Trans Fats from their products by June 2018. Several other countries also acted in this direction to take necessary steps to achieve the trans-fat free goal with time. According to the World Health Organization, not more than 1% of the total energy intake per day should come from Trans Fats.

In India, Prevention of Food Adulteration Act (PFA) was enforced in 1954 to regulate the food quality. In 2006, Food Safety and Standards Act was implemented. On 26 November 2009, recommendations were made to cap the Trans Fatty Acids amount in partially hydrogenated vegetable oils by the Food Authority in its third meeting. The draft of recommendations related to Trans Fats regulation was uploaded on FSSAI website in 2010. The National Institute of Nutrition, Hyderabad also recommended the mandatory labelling of Trans Fatty Acids and saturated fats on the food products.

In the meantime, Food Safety and Standards Rules (FSSR) were implemented in 2011. On 27 June 2013, FSSAI issued a rule under Food and Safety Standard (Packaging and Labeling) Regulation 2011, under which it was mandatory to declare the amount of Trans Fatty Acids and saturated fats on the product labels of vegetable oils and fats. Till 2013, the Trans Fatty Acids in edible oils/foods were not monitored in India. Further, Prevention of Food Adulteration Act had no quality parameters related to Trans Fatty Acids and saturated fats. There were no provisions to declare the amount of Trans Fats on the packaging label of a food product.

On 4 August 2015, FSSAI issued a notification to make it mandatory to declare the Trans Fatty Acids and saturated fats on the packaging labels of edible oils/fats and foods. It has also capped the permissible maximum limit of Trans Fatty Acids up to 5% effective from 27 August 2016. It was

Possible Source of High Trans Fatty Acids in our Diet

- Partially hydrogenated vegetable oils
- Baked foods like cakes and cookies
- Deep fried foods
- Margarine
- Fried potatoes, etc.

Trans Fat Free logo for Food Labels

a landmark decision of FSSAI in the field of food labelling in India. Further, FSSAI also recognised the importance of nutritional ingredients in vegetable oils and fats. The declaration of nutritional information was made mandatory on the packaging labels of edible vegetable oils and fats from 2016 under Food Safety and Standard (Packaging and Labelling) Regulation-2011.

Nutritional Facts on a Food Product

In spite of all these regulations and guidelines, rarely do people read the food labels carefully. To easily demonstrate the trans-fat amount in a vegetable oil product, FSSAI released a logo for Trans Fat Free products in July 2019. However, usage of 'Trans Fat Free' logo was not mandatory for food manufacturers on their product labels at that time.

On 29 December 2020, FSSAI released a notification, under which it became mandatory for food manufacturers to achieve the allowed maximum limit of Trans Fatty Acids of 3% effective from 1 January 2021. Further, on 2 February 2021, FSSAI issued another notification to cap the allowed Trans Fatty Acids amount in vegetable oils and fats up to 2% effective from 1 January 2022. According to FSSAI, 0.2 gram Trans Fatty Acids content per serving is considered as 'Zero Trans Fats' and such products are termed as 'Trans Fat Free'.

In a nutshell, India is aiming to achieve Trans Fatty Acids free vegetable oils and fats in 2022. Thus, India will join the group of nations such as United States, Japan, Canada, Brazil and European Union who have already declared their packaged food artificial Trans Fat Free.

However, public awareness on the consumption of Trans Fats is crucial to implement the rules and guidelines effectively. Creating infrastructure for sampling, testing and reporting of industrial Trans Fatty Acids in foods will play a major role in making India compliant to the World Health Organization's Global Elimination of Trans Fats goal by the year 2023.

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