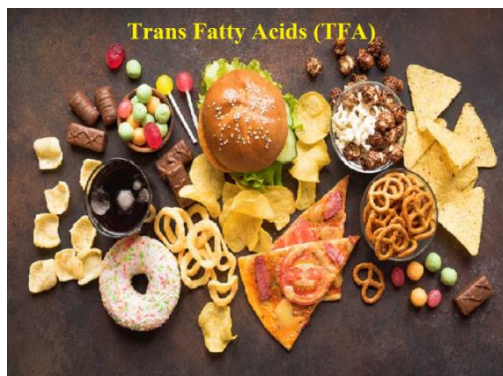


Trans Fatty Acids: Definition, Usage, Harmful effects, and Key Facts

According to the World Health Organisation, approximately 5.4 lakh deaths take place every year worldwide due to the intake of trans fatty acids. Let us study in detail Trans Fatty Acids (TFA) or Trans Fats.

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Jan 7, 2021



Trans Fatty Acids Or Trans Fats

The Food Safety and Standards Authority of India (FSSAI) has reduced the levels of trans fatty acids (TFA) in oils and fats to **3% for 2021** and **2% by 2022** from the current permissible limit of 5%. It has been done through an amendment to the Food and Safety and Standards (Prohibition and Restriction on Sales) Regulations.

On 29 December, the country's food regulatory body notified the amendment more than a year after it issued a draft on the subject for consultation with stakeholders.

The Regulation deal is done with the prohibitions and restriction on sales of several food products, ingredients, and their admixtures.

Some key facts are as follows:

- The regulation that is applied to the edible refined oils, vanaspati which is partially hydrogenated oils, margarine, bakery, shortenings, and other mediums of cooking including vegetable fat spreads and mixed fat spreads.

- According to the World Health Organisation (WHO), approximately **5.4 lakh deaths** take place every year worldwide due to the intake of industrially-produced trans-fatty acids. The WHO has also called for the global elimination of trans fats by **2023**.

- At the time of the pandemic, FSSAI released a rule where the burden of non-communicable diseases (NCD) has risen. For cardiovascular diseases, trans-fat consumption is the main risk factor and accounts for most NCD deaths.

- In 2011, India first passes a regulation that set a TFA limit of **10%** in oils and fats that was further reduced to **5% in 2015**.

About Trans Fats

[Trans fatty acids \(TFA\)](#) or trans fats are a form of unsaturated fat and come in both natural and artificial forms.

Or we can say that two broad types of trans fats found in foods namely **naturally-occurring** and **artificial trans fats**.

Trans fats are the most harmful type of fats which can cause an adverse effect on a human body than any other dietary constituent.

Naturally-occurring trans fats are produced in the gut of some animals and foods made from these animals example milk and meat products. They may contain small quantities of these fats.

Artificial trans fats are generated through an industrial process that adds hydrogen to liquid vegetable oils to form them more solid. That is hydrogen is made to react with the oil to produce fats that resemble pure ghee or butter.

Let us tell you that the primary source for trans fats in processed food is "**partially hydrogenated oils**".

Trans Fat in Food

Partially hydrogenated oil is the manufactured form of trans fat that may be found in various variety of food products like;

- Baked goods including cakes, cookies, and pies.
- Microwave popcorn
- Shortening
- Frozen Pizza
- Refrigerated dough like biscuits and rolls
- Nondairy coffee creamer
- Fried Foods like french fries, doughnuts, and fried chicken
- Stick margarine

Therefore, we can say that trans fatty acid contains oils that can be preserved longer, food can be transformed into the desired shape and texture, and can easily substitute 'Pure Ghee'. Comparatively, they are lower in cost and thus add to profit or saving.

What are the harmful effects of Trans fatty acids?

TFA increases the risk of **heart attacks, stroke, and type 2 diabetes**. They also pose an unhealthy effect on cholesterol levels.

That is they not only increase total cholesterol levels but also reduce good cholesterol (**HDL**), which helps to protect against heart disease.

It also increases the risk of developing **obesity, metabolic syndrome, insulin resistance, infertility, certain types of cancers** and can also lead to compromised fetal development that can cause harm to the yet to be born baby.

There are two main types of cholesterol namely

Low-density lipoprotein (LDL) or "bad" cholesterol can build up in the walls of arteries and make them hard and narrow.

High-density lipoprotein (HDL) or "good" cholesterol that picks up excess cholesterol and takes it back to the liver.

Trans fat increases LDL cholesterol and decreases HDL cholesterol. Also, if inside the arteries trans fat deposits then it can tear or rupture them, a blood clot may form and block blood flow to a part of the heart which causes a heart attack or to a part of the brain causes a stroke.

Metabolic Syndrome like high blood pressure, high blood sugar, body fat increases around the waist, and abnormal cholesterol levels. The syndrome also increases the risk of heart attack and stroke in a person.

Do you know why some companies use trans fats?

Trans fats are easy to use, inexpensive to generate, and last for an extended time or long time. It provides food a desirable texture and taste. Several restaurants and fast-food outlets use trans fats to deep-fry foods because oils with trans fats can be used various times in commercial fryers. Various countries including Denmark, Switzerland, Canada, etc., and jurisdictions including California, New York City, Baltimore, etc. have reduced or restricted the utilization of trans fats in foodservice establishments.

How to avoid Trans fats?

It may be tricky to avoid trans fats. In the United States, manufacturers can label their products "trans-fat-free" as long as there are fewer than 0.5 grams of these fats per serving.

According to Ashim Sanyal, Chief Operating Officer of Consumer VOICE, "The FSSAI rule comes at the time of a pandemic where the burden of non-communicable diseases has risen. Cardiovascular diseases along with diabetes are proving fatal for COVID-19 patients."

He added that the regulation must not be restricted to oils and fats, but must apply to all foods. "Hopefully, FSSAI will address this as well before January 2022 to eliminate chemical trans-fatty acids from the Indian platter."

What are the efforts taken to reduce the intake of fatty acids?

A "**Trans Fat Free**" logo has been launched by the FSSAI for voluntary labeling to develop TFA-free products. The label is often used by bakeries, local food outlets, and shops for preparations containing TFA not exceeding 0.2 per 100 g.

A new mass media campaign is also launched by FSSAI named "**Heart Attack Rewind**" to eliminate industrially-produced trans fat in the food supply by the year **2022**. It is a follow-up to an earlier campaign called "**Eat Right**", which was launched in **July 2018**.

A pledge is also taken by edible oil industries to reduce the levels of salt, sugar, saturated fat, and trans fat content by **2% by 2022**.

An initiative namely **Swasth Bharat Yatra** which was started under the "**Eat Right**" campaign is a Pan-India cyclothon to inform citizens regarding the issues of food safety, combating food adulteration, and healthy diets.

- India first passed a regulation in 2011 that set a TFA limit of **10%** in oils and fats which was further reduced to **5% in 2015**.

- In 2018, a **REPLACE** campaign was also launched by WHO for global-level elimination of trans-fats in industrially produced edible oils.