

# Aquestforbetterhealth

Balanced consumption and wise selection of edible oils foster overall wellbeing

SAUDIA AFRIN

Oil is an indispensable component of Bengali cuisine, enhancing both texture and flavor. The commonly used edible oils offer certain health benefits, including supporting heart and bone health, boosting the immune system, and improving skin condition. However, factors such as quality, processing methods, contamination risks, and consumption patterns significantly influence their nutritional value and safety.

Take a moment to reflect on your recent meals. How many dishes have you consumed without oil? While the number may vary from person to person, one thing is almost certain: dishes cooked with oil likely dominate the scale. Understanding the health impacts of edible oils is essential for making informed dietary choices.

In Bangladesh, frequently used edible oils include soybean oil, palm oil, sunflower oil, and mustard oil. Other available options in the market are rice bran oil, olive oil, canola oil, rapeseed oil, and coconut oil. Edible oils primarily consist of fats, which are classified into three types: monounsaturated fats (MUFA), polyunsaturated fats (PUFA), and saturated fats. Each type affects the body differently, making it essential to consider their health benefits as part of a balanced diet.

PUFAs include essential omega-3 and omega-6 fatty acids, which support brain and heart health. MUFAs, found in olive oil, canola oil, nut-based oils, and certain animal products, lower bad cholesterol (LDL), increase good cholesterol (HDL), and improve insulin sensitivity. Saturated fats, though controversial, can improve fat-soluble vitamin absorption, support hormonal health and the immune system, and provide a great source of energy when consumed in moderation.

Palm oil is the most consumed edible oil in Bangladesh, followed by soybean oil. Despite its high saturated

fat content, palm oil is widely used in commercial food preparation due to its affordability. Dr. Nazma Shaheen, Professor at the Institute of Nutrition and Food Science, University of Dhaka, notes, "Palm olein is good but costly and rarely found in Bangladesh. The palm oil available here is loaded with saturated fats."

Sunflower oil and rice bran oil are gaining popularity as healthier alternatives due to their higher nutrient content. Mustard oil, a traditional choice for Bengali cuisine, is not recommended as edible oil by the USDA because of certain fats, such as erucic acid. Dr. Shaheen explains, "Every oil has both positive and negative aspects. Soybean oil, rich in unsaturated fats, is beneficial, but these fats can degrade under heat and light, causing peroxidation and forming trans fats."

Lower-grade soybean oils, particularly partially hydrogenated ones, may contain trans fats, which are harmful to heart health as they raise LDL and lower HDL cholesterol. Md. Abdulla Al Mamun Fahim, Deputy Brand Manager of City Group, assures, "Our oil is produced in hi-tech facilities to ensure zero trans fat."

A two-year study conducted by the Institute of Nutrition and Food Science at Dhaka University and BRAC

University revealed that approximately 67% of bottled soybean oil samples in Bangladesh contained trans fats above permissible levels, while the rate for loose soybean oil was about 25%. No trans fats beyond acceptable limits were found in palm oil samples. The study highlighted that high-temperature refining processes are a major contributor to the formation of trans fats in oils.

Cold-pressed oils, extracted at low temperatures, retain more nutrients and health benefits compared to refined oils processed at high heat. "We haven't found trans fat in crude soybean. However, further study is required on this aspect," she adds.

The Bangladesh Food Safety Authority, following the guidelines of the World Health Organization (WHO), has classified trans fats as a harmful substance and set permissible limits for their presence in edible oils. Trans fats increase LDL and decrease HDL, raising the risk of coronary heart diseases, heart attacks, and strokes.

Dr. Shaheen also emphasizes the risks of mixing oils with substandard substances to cut costs, compromising nutritional value and safety. "Loose oil lacks proper packaging and vitamin fortification, making it less beneficial," she adds. However, affordability often compels low-income communities to opt for loose oils.

Affordability plays a significant role in why people, particularly in lower-income communities, opt for low-quality oil. "The pricing of the product should be left to market dynamics.

Introducing efficient

## HEALTH RISKS ASSOCIATED WITH EDIBLE OIL

Nowadays, diseases such as increased cholesterol levels, chronic heart diseases, and cancer are prevalent among people of all ages. Although edible oil is not the sole cause, it certainly plays a significant contributory role in this regard. Despite their health benefits, excessive consumption and improper use of oils can lead to serious health consequences.

Dr. Nazma Shaheen emphasized the importance of adhering to the recommended daily intake. "The consumption requirement of edible oil varies depending on several factors, including gender, age, and weight. For example, for someone with a 2000 kcal energy requirement, fat and oil consumption should not exceed 30 percent of the total kcal," she added.

Street food is a popular phenomenon in our food culture. Alarming, vendors often reuse low-quality oils for frying to minimize costs. These oils frequently contain harmful trans fats and carcinogenic compounds, posing serious health risks.

Risking heart health: excessive

consumption of oils high in saturated and trans fats can clog arteries, leading to heart attacks and strokes.

Obesity: Oils are calorie-dense, and uncontrolled consumption can lead to weight gain and associated health issues like diabetes.

Cancer risk: Repeatedly heating oils at high temperatures produces harmful compounds like acrylamide, which is linked to cancer.

Liver damage: Overconsumption of certain refined oils may lead to fat buildup in the liver, causing non-alcoholic fatty liver disease (NAFLD).

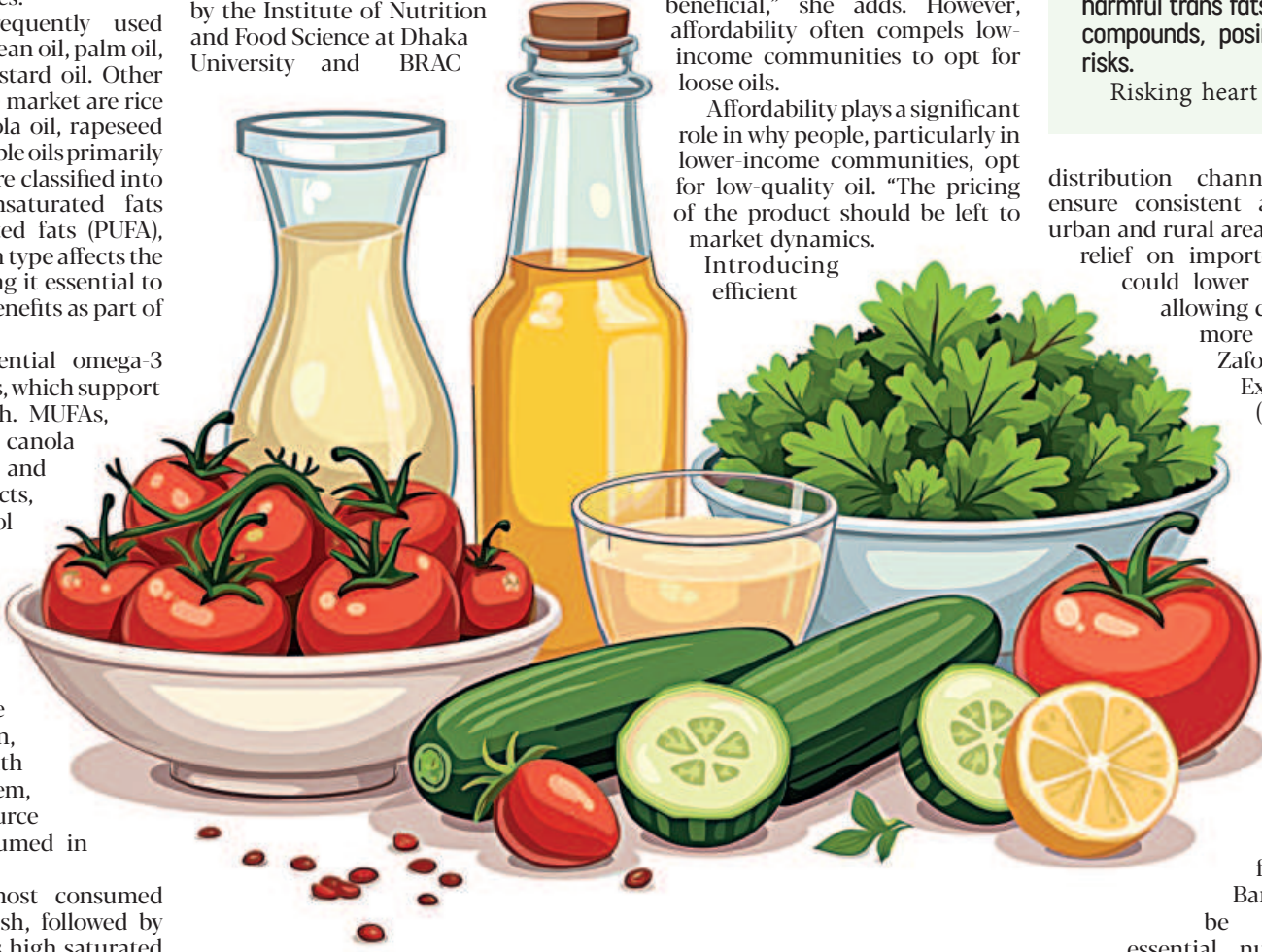
Healthier alternatives emerging in Bangladesh

- » Cold-Pressed Oils
- » Fortified Oils
- » Rice Bran Oil

Tips for Consumers

- » Check for Certification
- » Opt for fortified oils
- » Diversify oil use
- » Avoid overheating oil
- » Buy trusted brands

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Zafor Uddin Siddiqui, Executive Director (Marketing and Sales) of City Group.

Many brands address nutritional deficiencies by fortifying their products with vitamins A, D, and E. "As a pioneer in the industry, TEER Advanced Soybean Oil was the first brand in Bangladesh to be fortified with essential nutrients such as

vitamins A, D, and E, addressing widespread nutritional deficiencies. This fortification ensures that our oils not only meet cooking needs but also contribute to improved public health. Our refining process leverages the world's leading NRT (Nutrients Retained Technology) to preserve the oil's natural nutrients, ensuring that consumers receive the healthiest possible product. This advanced technology highlights our commitment to quality and innovation in every bottle," said Zafor from City Group.

Health experts and sector professionals believe that a more responsible approach by companies to refrain from unethical practices, along with enhanced monitoring by relevant government agencies, is key to overcoming the health concerns associated with edible oils.

Promoting awareness among people is crucial for encouraging healthier oil choices. Governments and food regulators must also ensure transparency in labeling and promote awareness about healthier oil options to encourage healthier lifestyles.

## POUR PERFECT Dos, Don'ts, and Best Practices

MUJIB BRAHMAN

Across the globe everybody is continuously becoming aware of potential health and safety risk associated with food practice and cuisine culture. Among all the ingredients of food industry, edible oil is an essential component. It is said that

Bangladesh is not self-sufficient in terms of producing oil crop, though

only a small fraction of demand. The market includes both branded and unbranded segments, with branded oils gaining traction due to quality assurance. Demand for fortified oils has increased due to regulations and health campaigns. Government oversight of imports, pricing, and fortification aims to ensure quality and curb manipulation. However, global crude oil price fluctuations often drive local price hikes. With better infrastructure and quality control, Bangladesh has potential for exporting edible oils and value-added products.

With regard to sustainable packaging, certain prominent brands are leading from the front. It may be noted that loose edible oil is still routinely consumed by certain portion of the people despite the sustained campaign by BSTI and Consumer Right association (CAB), reason behind durability of the loose oil might be economic. But nowadays government agencies have put ban on sale and usage of loose edible oil and are encouraging to consume healthy and nutrient fortified edible oil.

A large number of domestic edible oil companies are paving the way for healthy and sustained usage of food practices with regard to packing and nutrition. One of them, TEER, is the first brand to fortify soybean oil with vitamin A, D, and E. The specially designed PET bottle also eases the opening with one single twisting, particularly meant for individual client, while wholesale packaging such as drum, tin and plastic are used for corporate. In both cases, they maintain top-notch nutrition standard.

Oil manufacturing companies are leveraging technology, fortification, and innovation to provide healthier, high-quality, and safe edible oils for



consumers. Here's a brief guide on "Dos and Don'ts" for consumers to get the maximum health benefits while integrating edible oils into their diet.

### DOS:

- Choose the Right Oil for Cooking Needs:**
  - » Use oils with a high smoke point (e.g., sunflower, canola, or rice bran oil) for frying or high-heat cooking.
  - » Opt for oils with stronger flavors (e.g., olive or sesame oil) for sautéing, dressings, or low-heat cooking.
- Rotate Oils:**
  - » Incorporate a variety of oils (e.g., mustard, olive, coconut) to benefit from different nutrients and fatty acids.
- Measure Your Oil:**
  - » Use a controlled amount to prevent excess fat intake. A teaspoon or

two is often sufficient for most recipes.

- Store Properly:**
  - » Keep oils in a cool, dark place and ensure bottles are tightly sealed to prevent oxidation.
  - » Use smaller bottles for oils prone to rancidity, such as flaxseed or walnut oil.
- Monitor Shelf Life:**
  - » Check expiration dates and discard oils that smell off or have changed in texture or color.
- Dispose Used Oil Correctly:**
  - » Allow oil to cool after cooking and discard it in a sealed container or designated disposal site to avoid environmental harm.
- Opt for Cold-Pressed Oils When Possible:**
  - » Cold-pressed oils retain more nutrients and are less processed, making them a healthier choice for

non-heat uses.

### DON'TS:

- Don't Reuse Oil Excessively:**
  - » Avoid reusing cooking oil multiple times, especially after deep frying, as it can form harmful free radicals and trans fats.
- Don't Overheat Oil:**
  - » Heating oil beyond its smoke point can produce toxic compounds and unpleasant flavors. Avoid letting oil smoke during cooking.
- Don't Mix Different Oils:**
  - » Mixing oils with different properties can alter their stability and nutritional value.
- Don't Use Oil as the Sole Source of Fat:**
  - » Balance your diet with healthy fats from nuts, seeds, avocados, and fatty fish.
- Don't Use Oil Past Its Best-Before Date:**
  - » Rancid oil can harm your health and negatively impact the flavor of your food.
- Don't Store Oil Near Heat or Sunlight:**
  - » Exposure to heat and light can degrade oil quality, causing it to go rancid faster.
- Avoid Overconsumption**
  - » As food practices go through transformation over time, global supply chain also equally determines kitchen essentials, notably edible oil. For the sake of growing demand of the rising population in Bangladesh, brands are not merely driven by profit motive but also equally preoccupied with delivering healthy, eco friendly and sustainable edible oil.

