



Ultra-Processed Foods and Their Impact on Health: What Everyone Should Know

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Editor's Desk

Dear Readers,

Over the last two decades, eating habits across the world have changed sharply. India is no exception. Urbanisation, busy lifestyles, and the demand for convenience have led to a rapid rise in the use of packaged foods, ready-to-eat meals, and fast foods. Now, a stage has been reached where ultra-processed foods pose a significant public health risk. A 2024 meta-analysis report indicated that consuming ultra-processed foods is associated with a 15 per cent increased risk of all-cause mortality and is linked to 32 adverse health outcomes. Under the new classification 2017, ultra-processed foods are industrially produced formulations that contain minimal or no whole foods.

At the same time, many people are confused. A mother asks, "Why are ultra-processed foods so hard to resist?" Another asks, "How do I identify them?" A student wants to know, "How often can I eat pizza, burgers, or soft drinks?" Someone wonders, "If I eat a mango, guava, or cucumber with salt, chilli powder, or lemon, does that become processed food?" Another parent asks, "Should children be completely prevented from eating ultra-processed foods?" There are many such doubts in the minds of the people.

Today, many parents who are aware of the harmful effects of these foods want clear answers to many practical questions.

We hope you find this newsletter informative and helpful in taking proactive steps towards healthy living.

Your feedback is welcome, and we look forward to hearing from you.

With regards

Dr. Bhujanga Rao Vepakomma
Chief Editor

Understanding Food Processing:

Food processing refers to any technique of altering food from its natural state before consumption. Processing may include processes like washing, cutting, grinding, cooking, freezing, drying, fermenting, or packaging food.

Food processing in itself is not considered harmful. Many traditional and modern minimal food-processing methods are known to improve food safety, extend shelf life, and facilitate a convenient way of consumption.

Examples of minimally processed foods are:

Frozen vegetables and fruits, pasteurised milk, roasted nuts, whole-grain flour, yogurt and other fermented foods. These foods may undergo simple processing but retain most of their natural nutrients and vitamins. Traditional food preparation methods also involve mild processing, such as grinding grains, fermenting milk to make yoghurt or drying fruits, all of which have been practised for centuries without harmful effects.

The real concern arises when foods undergo extensive industrial processing that significantly alters their composition and introduces artificial ingredients.

Ultra-Processed Foods:

Ultra-processed foods are industrially manufactured products made largely from substances extracted from foods or synthesized in laboratories rather than from whole ingredients and are engineered to be extremely tasty and convenient.

They typically contain refined sugars, refined oils, starches, numerous additives and are naturally designed to improve flavour, texture, appearance, and shelf life.



These foods are usually: Ready to eat or ready to heat, highly palatable long-lasting on store shelves, mass-produced and heavily marketed.

Common examples include packaged chips and salty snacks, instant noodles, sugary breakfast cereals, soft

drinks and energy drinks, packaged cakes, cookies and pastries, frozen ready-to-eat meals, processed meats such as sausages and hot dogs and many fast-food products.

Such foods are typically high in calories, salt, sugar and unhealthy fats while being low in fibre, vitamins, and essential nutrients.

Hyper-Palatable Foods for Non-Hungry People:

Many ultra-processed foods are also hyperpalatable foods. These foods are designed to create a highly satiating appealing taste that can stimulate the brain, prompting more. Researchers have identified nutrient-rich combinations that make foods especially hard to resist. Fat combined with salt, fat combined with sugar, and refined carbohydrates combined with salt, etc form a group of such items. Chips, fries, doughnuts, cakes, sweetened cereals and many similar fast-food items belong to this category.

These combinations trigger pleasure signals in the brain that make people continue eating even when they are not hungry. Over time, this can lead to excessive calorie intake.

Fast Foods and their Growing Presence

Fast-food outlets and quick-serve restaurants are now found almost everywhere, from busy cities and shopping centres to highways and smaller towns. In many places, they are gradually replacing traditional eating centres or conventional restaurants that once served freshly prepared meals.



Fast food is popular because it is convenient, quick, and relatively inexpensive. However, many fast-food items are highly processed and often contain flavour enhancers, preservatives, stabilisers, and artificial colouring agents.

Although food safety authorities permit many of these additives within regulated limits, their frequent consumption may still pose health problems when they become a regular part of the diet.

Therefore, while occasional ultra-fast food might be acceptable, overreliance on it instead of balanced home-cooked meals can reduce diet quality and affect long-term health.

Ingredients used in Ultra-Processed Foods:

Ultra-processed foods often contain several ingredients that are rarely used in normal cooking. These ingredients are added in the course of cooking to improve taste, texture, appearance, or shelf life, other than diet quality. Common ingredients include refined sugars (glucose syrup or high-fructose corn syrup, artificial sweeteners), hydrogenated oils or trans fats, refined starches and flours, artificial flavours and flavour enhancers, food colouring agents, preservatives, emulsifiers and stabilisers.

While many of these substances are permitted in food manufacturing, frequent consumption may contribute to poor diet quality and health risks.

Identify Ultra-Processed Foods from Food Labels:

Food labels and ingredient lists can often help consumers in recognising ultra-processed foods. Checking the ingredient list on packaged foods is one of the simplest ways to identify heavily processed products. Scientific literature suggests that products containing several additives such as flavours, preservatives, stabilisers, emulsifiers, and colourings are often classified as ultra-processed foods. Examples include sodium benzoate, monosodium glutamate (MSG), carrageenan and artificial colours. Glucose syrup, fructose syrup, maltose, and corn syrup indicate added sugars. Additionally hydrogenated oils are used in industrial processing.

Health Effects of Ultra-Processed Foods:

Research increasingly shows that diets high in ultra-processed foods are associated with several health problems. Suppose a healthy adult consumes a diet consisting only of UPFs for two consecutive weeks; compared to a normal person who consumed whole food diet reports have indicated a diet gain of average 0.9 kg in two weeks, while there was loss of 0.9 kg in the normal person.



One major concern is obesity, because these foods are calorie-dense but low in fibre and protein. These foods do not provide lasting satiety, resulting in increased cravings and overeating.

Regular intake of refined carbs and sugars can raise the chances of developing type 2 diabetes.

High levels of salt and unhealthy fats can contribute to heart disease, high blood pressure and inflammation.

Diets low in fibre may also affect digestive health and gut bacteria. Disturbed gut bacteria pose several serious risks, including a prelude to cancer.

Some studies suggest possible links between high intake of ultra-processed foods and mental health problems, although more research is still needed.

Ultra-Processed Foods are Harmful for Children:

Children are especially vulnerable to the effects of ultra-processed foods because their bodies and cognitive systems are still developing.



Many processed snacks and sugary drinks have amassed a huge market through heavy advertising. Children get attracted to these colourful advertisements. These marketing strategies are known to drive sales based on these children's preferences.

When ultra-processed foods replace fruits, vegetables, whole grains, and protein-rich foods, they cause significant harm to children. Children may develop nutrient and vitamin deficiencies that affect growth, immunity, and learning ability.

Tooth decay in children is known to result from these ingredients.

Childhood Obesity due to Ultra-Processed Foods:

Children's obesity has become a major global health concern, and ultra-processed foods have been blamed for this trend. Sugary drinks, packaged snacks, and fast foods often provide large amounts of calories that lead to obesity.



Children who frequently consume these foods have a greater risk of becoming overweight, which increases the likelihood of chronic diseases later in life. Some reports show pregnant women consuming a high amount of UPFs in third trimester leads to higher neonatal adiposity (increased fat mass in the newborn baby) with a higher risk of gestational diabetes.

Hidden Costs of Ultra-Processed Foods

Although ultra-processed foods may appear less expensive at first, their true cost may be much higher.

The Food and Agriculture Organisation (FAO) of the United Nations has pointed out that the front-end price of such foods does not reflect their hidden societal costs. These include scaling up healthcare expenses required to control obesity, diabetes, and heart disease, as well as the costs of reduced productivity and increased rehabilitation and healthcare.

Thus, while ultra-processed foods may seem cheap at the point of purchase, their long-term health consequences may impose costs on individuals and society that far exceed the food's price.

Not all Processing makes Food Unhealthy:

It is to be understood that limited proven processing does not make food unhealthy.

For example, if someone plucks a mango or a guava from a tree and eats it immediately, the food is essentially unprocessed and completely natural.

Adding a small pinch of salt and spice makes the food minimally processed, keeping it healthy, nutritious, and enjoyable.

Cooking at home includes gentle processing techniques such as grinding, roasting, pressure cooking, and fermentation. These techniques typically improve the food's nutritional value and taste, making it easier to digest and healthier.

However, when foods are excessively loaded with fat, sugar and additives, they may become less healthy.

For instance, bread made at home using flour, water, yeast and a small amount of oil is considered moderately processed and considered good. But if excessive fat, sugar and artificial additives are added during industrial production, the food may become over-processed or ultra-processed.

Eat Foods like Pizza or Sugary Drinks Occasionally:

Many people wonder whether foods such as pizza and burgers, or sugary drinks like cola, should be completely avoided or consumed occasionally. Nutrition experts generally recommend strict moderation rather than complete prohibition.

Pizza

If someone asks how many pizzas they can eat in a week, the answer is that pizza should be considered an occasional treat rather than a part of their snacky diet.

Pizza is generally made up of refined flour, cheese, salt, and processed toppings. Eating it occasionally during social gatherings or special outings is unlikely to cause harm, especially if the overall diet is balanced. Choosing versions with more vegetables and fewer processed meats can make it somewhat healthier.



Sugary drinks:

In addition, sugary drinks such as cola provide large amounts of sugar with little nutritional value.

Health experts strongly recommend avoiding regular consumption of sugary drinks. If consumed at all, they should be limited to rare occasions rather than becoming a routine habit.

Water, coconut water, lemon water, or other homemade drinks are much healthier alternatives today.

Children should not be completely prevented from eating these foods.

Completely banning certain foods may sometimes make them even more counterproductive for children. Instead of strict prohibition, many experts recommend limiting the fare and under moderation.

Children may occasionally, if unavoidable, consume foods such as pizza or sugary drinks during celebrations or outings with a proper healthy choice of toppings.

When healthy eating habits are developed early in life, occasional treats are unlikely to cause major harm.

Healthier Food Choices and Swaps

Reducing ultra-processed foods can be achieved through simple changes.

Examples include:

- Replace potato chips with several roasted nuts / homemade popcorn
- Replace sugary breakfast cereals with rolled oatmeal and fruits
- Replace soft drinks with water or fruit juices, Aam panna, and coconut water
- Replace packaged cookies with homemade snacks
- Traditionally Indian homes make a number of snacks and bites which offer a wealth of nutrient-dense whole food alternatives like sprouts salad, poha, idly, dhokla, roasted chana, fruit chaat, roasted fox-nuts etc.
- Replace instant noodles with freshly prepared meals
- Replace sugary desserts with yoghurt and fresh fruits

These small changes help improve nutrient intake while reducing excessive sugar, salt, and additives. Problems may be encountered until taste buds get used to it.

Practical Tips to Reduce Ultra-Processed Foods

Some simple strategies can help families reduce ultra-processed foods:

- Cook more meals at home
- Choose fresh fruits, vegetables, and whole grains
- Read ingredient labels carefully
- Avoid foods with long ingredient lists
- Limit sugary drinks and packaged snacks
- Encourage healthy eating habits in children
- Developing these habits early can support lifelong health.

Key Takeaways

Ultra-processed foods have become a major part of modern diets, but their consumption will affect health.

These foods are typically high in sugar and salt and contain additives such as flavours, preservatives, regulators, stabilisers, colouring agents and unhealthy fats, while lacking essential nutrients.

Foods are also configured to be 'Hyper-palatable' by manufacturers to stimulate the brain's reward system for satiation, craving and overeating.

Food labels will help to identify ultra-processed foods by their ingredient list to assess their level of processing.

Children are particularly vulnerable to catching up with these foods and getting accustomed to them. Their consumption may contribute to childhood obesity and other health problems.

Organisations such as the FAO have highlighted that the hidden health and societal costs of these foods may be far greater than their purchase price.

Fresh fruits, home-cooked meals made with minimally processed ingredients, fresh salads, fresh juices, and homemade snacks continue to be healthy and nutritious options.

By choosing whole foods, cutting back on fast food, reading labels carefully, and promoting balanced diets, individuals and families can make meaningful moves toward healthier lifestyles.



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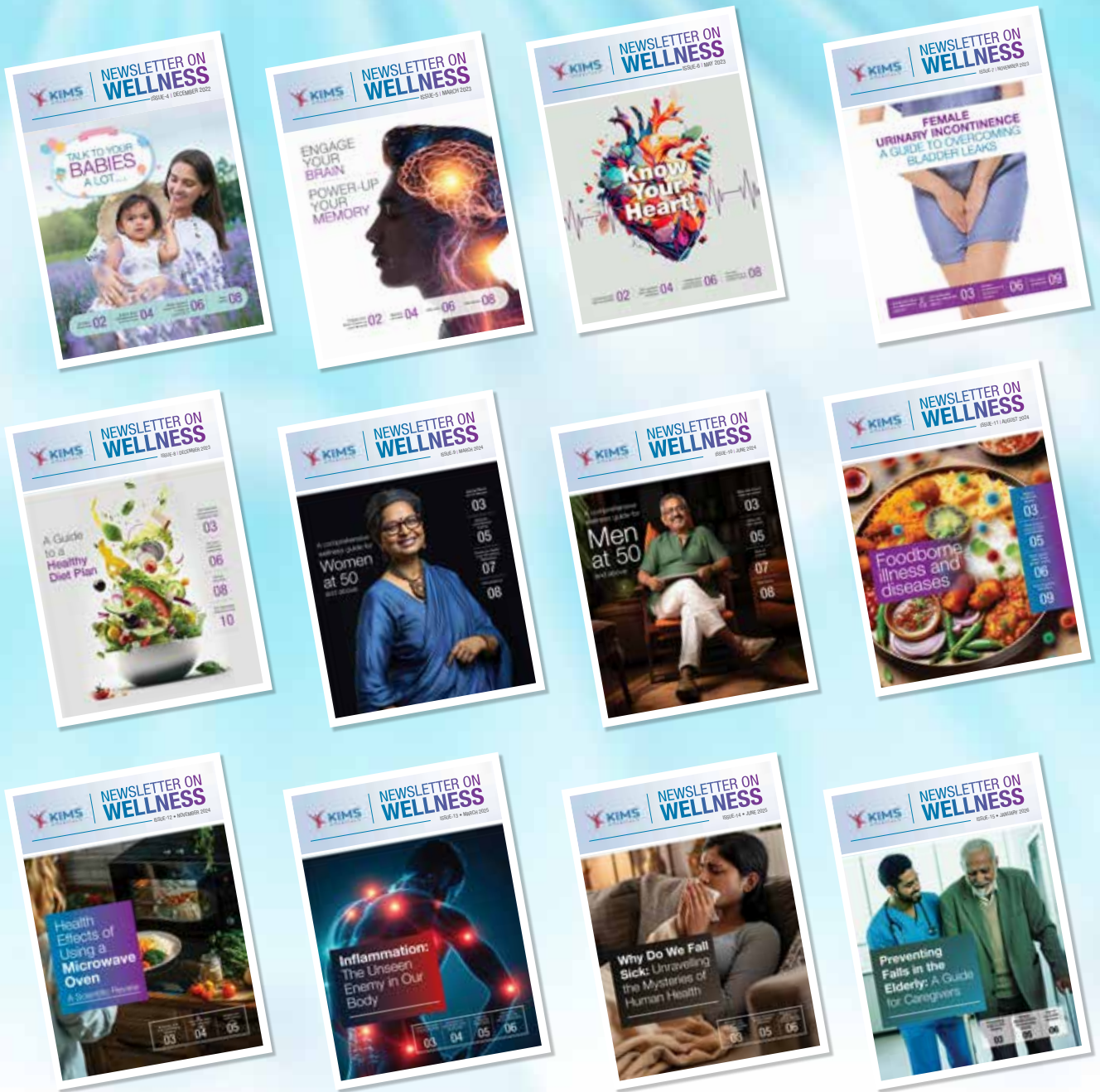
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