Health Risks Associated with Ultra-Processed Foods (UPFs) - What Steps can be taken to reduce consumption?

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Global Virtual Symposium: Investing in Maternal Infant and Young Child Nutrition for Sustainable Development - What works, where are the gaps, What needs more efforts or change?
Overview

• What are UPFs
  – NOVA Classification of foods
• Risks of Consumption Ultra-processed foods
• What steps can be taken to reduce consumption
  – What can people or an individual do?
  – What can Governments of India do?

And what can you do for advocacy?
Webinar Held on 20th July

[Hyperlink](https://www.bpni.org/webinar-on-ultra-processed-foodsupfs/)

WEBINAR

*What you need to know about Ultra-Processed Foods (UPFs)?*

The science, policy responses and politics in global context: 20 July 2020

Organised by NAPi and BPNI in collaboration with Deakin University and NUPENS/UPS Supported by UNICEF

The Breastfeeding Promotion Network of India (BPNI) and Nutrition Advocacy in Public Interest (NAPI) organise this Webinar believing that guidance for consumption of UPFs becomes even more important as we continue to face the Covid-19 pandemic.

The World Health Organisation recommends "healthy diet" for all infants, young children and adults. The WHO also advises about salt, sugar and fats one should consume. Concerns have been expressed globally about the negative impact on human health of the replacement of real foods by products so industrially processed that they are hardly recognisable from their raw ingredients. Industrialised Nations have witnessed substantial replacement and developing countries are fast catching up. Increased intake of UPFs often high in fat, sugar, salt, chemical additives, low in fibre and food-based nutrients, is a matter of great concern. Recent reviews have thrown light on health outcomes as a result of exposure to UPFs.

Professor Carlos Monteiro from University of Sao Paulo, Brazil, and his team while studying dietary patterns in Brazil, found that obesity in adults went up from 7.5% in 2002 to 17.5% in 2013. This finding was surprising because of the fact that people were buying less sugar and oil. This team observed that consumption of highly processed or ultra-processed foods (UPFs), ready to eat, sugary and packaged food products had gone up during this time. They felt the need to classify foods according to the extent and purpose of food processing rather than in terms of nutrients. This led to "NOVA Food Classification". Their team also developed a guide to identify to which group the food belongs.

Objectives: The Webinar will provide updated information on UPFs, scientific evidence of consuming UPFs on health outcomes, global and regional dietary patterns, NOVA classification of foods with examples and to make policy recommendations and how marketing tactics influence consumption of UPFs.

Advocacy Document:

"The Unseen Dangers of Ultra-Processed Food"

Translations Available:
- English
- Hindi
- Punjabi
- Telugu
- Malayalam
- Oda
- Baggli
- Konkardi
- Telugu

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NOVA Classification of Foods according to its processing

• Group 1-Unprocessed or minimally processed foods
• Group 2-Processed culinary ingredients
• Group 3-Processed foods
• Group 4-Ultra-processed foods (UPFs)
Unprocessed or minimally processed foods eaten as boiled, cooled, pasteurized, roasted, crushed, ground, fermented, fried or frozen.
Processed Culinary Ingredients

Obtained directly from group 1 or from nature by processes such as pressing, refining, grinding, milling, and spray drying. These are used in cooking and seasoning to make foods delicious.

Examples: Sugar, oil and butter from milk, ground spices, salted butter, iodized salt, and vinegar.
Harmless/Beneficial Processing-Processed Foods

NOVA classification system and types of food processing: harmless, beneficial or essential processing

Unprocessed foods

Industrial processing to increase the durability, optimize or shorten preparation time and modify sensory characteristics.

- Minimally processed foods
- Processed culinary ingredients
- Processed foods

Freshly prepared culinary preparations

Removing non-edible parts, drying, freezing, pasteurization, fermentation, pressing, packaging, adding salt or sugar...
Harmful processing/ultra-processing – Ultra-Processed Foods (UPFs)

NOVA classification system and types of food processing: harmful processing

Unprocessed foods → Several steps of industrial processing: ultra-processing

Whole foods broken down into components (oils, proteins, starch, sugar)
- Hydrogenation, hydrolysis, and other chemical modifications
- "Recombination" (extrusion, immersion frying, etc.)
- Addition of flavorings, dyes, emulsifiers...
- Sophisticated packaging often with synthetic materials

Ready-to-eat industrial formulations of food-derived substances (oils, fats, sugars, starch, protein isolates) that contain little or no whole food and are often added with flavorings, colorings, emulsifiers, and other cosmetic additives.

NOT FOODS BUT FORMULATIONS
Ultra-Processed Foods (UPFs)

- Typically five or even more ingredients.
- Made in factories.
- At least one ingredients we don’t use or rarely in domestic kitchen.

*Carbonating, firming, whipping, bulking and anti-bulking, de-foaming etc.*
Identifying UPFs

• Usually advertised
• Celebrity endorsed
• Ready to eat and consume
• Convenient
• Pitched as any time anywhere foods
• “Designed to be over consumed”
Health Risks

- Cancer
- Diabetes
- Obesity
- Heart Disease
UPFs and health outcomes

Ultra-Processed Foods and Health Outcomes: A Narrative Review

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Keywords: ultra-processed food; health outcomes; dietary patterns; NOVA; food processing; obesity

Recent Publications

UPFs and the nutrition transition

Ultra-processed foods and the nutrition transition: global, regional and national trends, food systems transformations and policy economy drivers

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Key words: ultra-processed foods, beverages, palm oil, nutrition transition, food systems, policy economy

Running title: Ultra-processed foods and the nutrition transition

Conflict of interest: The authors declare no conflicts of interest.

Abstract

Understanding changes in global ultra-processed food (UPF) consumption and associated drivers is essential, given mounting evidence linking these foods with adverse health outcomes. This systematic review takes two steps. First, we quantify the uptake of calories and nutrients in UPF sales, and identify the per capita and regional trends. Second, we review the literature on food systems and policy economy factors that may explain the observed changes. We find evidence for a structural expansion of the types and amounts of UPFs sold worldwide, representing a transition towards a more processed global diet, but with variations between regions and countries. As countries grow richer, more UPFs and a wider variety of UPFs are sold. Sales volumes are highest in Australia, North America, Europe and Latin America, but are growing most rapidly in Asia, the Middle East, and Africa. These developments are closely linked with the transformations of food systems, technological change and globalisation, including growth in the market and political activities of transnational food corporations, and new economic governance and policy responses. The scale of dietary change demands, especially in highly populated middle-income countries, raise serious concerns for global health.
Obesity
Ultra-processed foods and obesity in adults

Source: Impact of ultra-processed food consumption on children's, adolescent's and adult's health: systematic literature review. Louzada et al. Reports in Public Health. Under

Ultra-processed foods and obesity in adults
Ultra-processed foods and obesity in adults


Children/adolescent

RCT (n=1)

Cohort studies (n=25)

Case-control and cross-sectional studies (n=27)
Ultra-processed diets cause excess calorie intake and weight gain

[Graph showing energy intake and body weight changes over days on ultra-processed and unprocessed diets]
Ultra-processed foods and cardiovascular disease, diabetes and cancer

Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé)
Bernard Sroun, Léopold K Fezeu, Emmanuelle Kesse-Guyot, Benjamin Allès, Caroline Méjean, Roland M Andrianasolo, Elios Chazelas, Mélanie Deschasaux, Serge Hercberg, Pilar Galan, Carlos A Monteiro, Chantal Julia, Mathilde Touvier

Ultraprocessed Food Consumption and Risk of Type 2 Diabetes Among Participants of the NutriNet-Santé Prospective Cohort
Bernard Sroun, PharmD, MPH, PhD, Léopold K. Fezeu, MD, PhD, Emmanuelle Kesse-Guyot, MSc, PhD, Benjamin Allès, PhD, Charlotte Detres, MSc, Nathalie Draene-Pecollo, PhD, Elios Chazelas, MSc, Mélanie Deschasaux, MSc, PhD, Serge Hercberg, MD, PhD, Pilar Galan, MD, PhD, Carlos A. Monteiro, MD, Chantal Julia, MD, MPH, PhD, Mathilde Touvier, PhD, MSc, MPH

Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort
Thibault Fiolet, Bernard Sroun, Laury Sellam, Emmanuelle Kesse-Guyot, Benjamin Allès, Caroline Méjean, Mélanie Deschasaux, Philippine Fassier, Paule Latino-Martel, Marie Beslay, Serge Hercberg, Céline Lavollette, Carlos A Monteiro, Chantal Julia, Mathilde Touvier
Ultra-processed foods and depression
Ultra-processed foods and all-cause mortality

Association between consumption of ultra-processed foods and all cause mortality: SUN prospective cohort study
Anaíis Rico-Campá,1,2 Miguel A Martínez-González,1,3,4 Ismael Alvarez-Alvarez,1 Raquel de Deus Mendonça,1,5 Carmen de la Fuente-Amillaga,1,2,3 Clara Gómez-Donoso,1 Manz Bens-Rastrollo,1,2,3
BMJ 2019;365:k1949

Consumption of Ultra-Processed Foods and Mortality: A National Prospective Cohort in Spain
Ruth Blanco-Rajo, PhD; Helena Sanz-Caballero, MD, MPH; Esther Lopez-Garcia, MPH; Ailin K. Chown; MD; Claudia Ariza-Carmona, MD; PhD; Jose M. Ontoso, PhD; Jose R. Barrios, MD, PhD; Fernando Rodriguez-Artalejo, MD, PhD; and Mar-Celina Cisternas, MD, PhD

Ultra-processed food intake and mortality in the United States: Results from the Third National Health and Nutrition Examination Survey (NHANES III 1988-1994)
Hyunja Klee1,2, Emily A. Hu2,3, and Casey M. Reholtz2,3

Association Between Ultra-processed Food Consumption and Risk of Mortality Among Middle-aged Adults in France
Laura Schembri, MD, MS; Emmanuel Ronco-Guyard, PhD; Benjamin Alles, PhD; Madeleine Touvier, PhD; Bernard Sicot, PharmD; Serge Herberg, MD, PhD; Camille Boccal, MD; PhD; Chantal Julia, MD, PhD

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Yet UPF sales rising ...
Rising trend of UPFs in India

In Kilograms

Confectionery
Sweet Biscuits

Courtesy Dr Phillip Baker
Institute for Physical Activity and Nutrition Deakin University, Melbourne
Email: phil.baker@deakin.edu.au
Rising trend of UPFs in India

In Million liters

- Flavoured Milk Drinks
- Carbonates
- Juice Drinks (up to 24% Juice)

Courtesy Dr Phillip Baker
Institute for Physical Activity and Nutrition Deakin University, Melbourne
Email: phil.baker@deakin.edu.au
What steps can be taken to reduce consumption?
What can people do?

Specific Recommendations

• **Group 1 Foods**: Can make these foods the basis of their and baby's diet.

• **Group 2 Foods**: Use processed culinary ingredients in small amounts for seasoning and cooking foods and to create culinary preparations.

• **Group 3 Foods**: Limit the use of processed foods.

• **Group 4 Foods**: Avoid ultra-processed food products.
What can people do?

General Recommendations

• Identify whether the food is a UPF before buying

• Be wary of adverts/information from industry or celebs.

• Trust information from sources like WHO, Government of India or public interest groups like NAPi/BPNI.
Breastmilk is all that a baby needs for 0-6 months. For those where artificial milk has to be used for reasons, animal milk falls in minimally processed group and powdered milks fall in UPFs.
6-36 months

**REAL FOODS**
(Unprocessed or minimally processed foods)

- Milk and Milk Products
- Fruits and Vegetables
- Cereals and Pulses

**ULTRA-PROCESSED FOODS**

- Drinks and Infant Cereals
- Chocolates and Ice cream
- Snacks and Biscuits
3-8 Years

**REAL FOODS**
(Unprocessed or minimally processed foods)

- Kheer
- Poha
- Cheela
- Sooji Halwa

**ULTRA-PROCESSED FOODS**

- Noodles
- Sweetened Beverages (Cold Drinks)
- Bread and Cakes
- Frozen Snacks
- Health Drinks

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Above 8 years-Adults

REAL FOODS
(Unprocessed or minimally processed foods)

- Meal
- Idli Sambhar
- Dosa
- Omelette
- Dahi Bhalle

ULTRA-PROCESSED FOODS

- Pizza
- Fried Chicken
- Frozen Kabab
- Burger
- Alcohol

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What can the Governments do?

• Launch a campaign to identify UPFs, and on the negative consequences on health of the UPFs.
• Develop a legal framework to prohibit promotion of UPFs, front of the pack labels
• Adopt NOVA classification as a policy and include this in the national food dietary guidelines and develop an age specific concept (Brazil, Peru, Uruguay, Ecuador are using)
• Set up a National Task Force (without any conflicts of Interest) for surveys, research and policy response advice.
• Levy taxes on UPFs and provide subsidy to producers of minimally processed foods/unprocessed foods.

Keep the policy development process free from conflicts of interest.
What can you do?

• Write, Speak, Share about UPFs in local papers.
• Share on social media.
• Sign up the NAPI-BPNI Statement on UPFs on our website if you agree.
• Write to your State policy makers to do the right action to halt the rise of UPFs and reduce consumption.

The UNSEEN DANGERS of UPFs” available in English and will be in several Indian languages.
Thank you

INFORMATION
YOU CAN
TRUST

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