

The Hidden Dangers of HFSS Foods: How They Affect Health of Children and Adolescence

Kumari Pallavi¹ and Hari Charan Kalita²

¹SMS (Home Science), ICAR-KVK Longleng, Nagaland

²SS and Head (Agronomy), ICAR-KVK Longleng, Nagaland

ARTICLE ID: 43

Introduction:

Foods labeled as HFSS (High in Fat, Sugar, and Salt) have elevated levels of added sugars, harmful fats, and/or salt. These foods, which include sugary snacks, fast meals, fried foods, sugary drinks, and packaged snacks like cookies and chips, are frequently highly processed. Foods classified as high-fat, high-sugar (HFSS) tend to be high in calories but low in vital elements such as fiber, vitamins, and minerals. Frequent eating of meals high in fat, sugar, and salt (HFSS) has been connected to a number of health issues, such as high blood pressure, obesity, heart disease, and type-2 diabetes.

Types of HFSS Foods:

- ✚ **Crackers:** A thin slice of potato that has been baked, air-fried, or deep-fried until crunchy is called a potato chip or crisp. They are commonly served as an appetizer, side dish, or snack.
- ✚ **Pizza:** Pizza is an Italian dish that is usually baked at a high temperature, usually in a wood-fired oven, and has a flat foundation made of leavened wheat-based dough topped with tomato, cheese, and other ingredients.
- ✚ **Soft drink:** Any flavored water and beverage with added sweetness. Natural or artificial flavors can be used. Fruit juice, high-fructose corn syrup, sugar, sugar substitutes, or any combination of these could be used as the sweetener.
- ✚ **Confectionery:** It is the food items that is rich in sugar and carbohydrates
- ✚ **Frozen meal:** Ultra-processed food portioned for an individual is a frozen meal, prepared meal, ready-made meal, ready meal, frozen dinner, and microwave meal.



Impact of HFSS food on health of the children and adolescence:

The prevalence of overweight and obesity in children and young people has increased significantly worldwide. The number of obese children and adolescents aged 5 to 19 has increased tenfold over the past four decades (Singh et al., 2008). Marketing strategies employed by the food industry encourage the purchase and consumption of these HFSS foods, wherein a combination of sugar, salt, fat as well as texture is proven to be highly appealing (Moss et al., 2014). These foods have been recognized as an important factor in the excessive consumption of these products, especially by children (WHO, 2018). The harmful effects on children's health of food marketing, which includes commercial communications (defined as the transmission of any form of content (messages, images, graphic elements, symbols) intended to promote, directly or indirectly, goods, services, or the image of organizations), including television advertising, and TV sponsorships. Children and adolescents have been identified as being particularly vulnerable to food marketing (Garde et al., 2018).

Replacing HFSS foods with nutritious alternatives:

Adolescents might be particularly vulnerable to the long-term negative effects of unhealthy food promotion, as they are exposed to extensive marketing efforts on social media and are not typically covered by regulatory efforts (Harris et al., 2021). HFSS foods have higher intrinsically rewarding properties that make them more "wanted" and "liked" than fruit and vegetables (Folkvord et al., 2016).

Fruits and vegetables have been found to be good for health, where the strongest evidence for fruits was found for cardiovascular protection, with possible evidence for

decreased risks of colon cancer, depression, and pancreatic diseases, while for vegetable intake, a reduction in the probability for colon and rectal cancer, hip fracture, stroke, depression, and pancreatic diseases was found (Angelino et al., 2019). While there are various tactics available for encourage children to eat fruits and vegetables, including school-based health literacy initiatives, parent-child communication techniques, and feeding habits. To achieve this, we will first discuss how the marketing of harmful foods affects kids' eating habits before demonstrating how the promotion of better meals can also successfully alter behavior.



Unlike to eating fruits and vegetables, HFSS foods cause the brain's reward system to automatically become more active, overriding homeostatic systems and ultimately increasing the intake of these foods and contributing to overweight and obesity. On the other hand, eating a diet high in fruits and vegetables promotes healthy growth and development, guards against many chronic diseases, increases mental well-being, and prevents unhealthy weight gain and obesity during critical stages of life.

Conclusions:

The health of children and adolescents is significantly at risk due to the hidden dangers associated with diets high in fat, sugar, and salt, or HFSS. The increased prevalence of type 2 diabetes, obesity, and other chronic illnesses in younger populations is correlated with the increasing use of these goods. It is our responsibility as parents, educators, and legislators to raise young people's understanding of these risks and motivate them to adopt healthy eating choices. To counteract the HFSS food epidemic, more advertising rules, better product labeling, and nutrition-conscious surroundings are all important. We can safeguard the health of upcoming generations and create the groundwork for a better future by being aware of and responding to these hidden risks.

References

- Angelino, D.; Godos, J.; Ghelfi, F.; Tieri, M.; Titta, L.; Lafranconi, A.; Marventano, S.; Alonzo, E.; Gambera, A.; Sciacca, S.; et al. Fruit and vegetable consumption and health outcomes: An umbrella review of observational studies. *Int. J. Food Sci. Nutr.* 2019, 70, 652–667.
- Folkvord, F.; Anschütz, D.J.; Boyland, E.; Kelly, B.; Buijzen, M. Food advertising and eating behavior in children. *Curr. Opin. Behav. Sci.* 2016, 9, 26–31.
- Garde, A.; Byrne, S.; Gokani, N.; Murphy, B. A Child Rights-Based Approach to Food Marketing a Guide for Policy Makers; UNICEF: New York, NY, USA, 2018.
- Harris, J.L.; Yokum, S.; Fleming-Milici, F. Hooked on junk: Emerging evidence on how food marketing affects adolescents' diets and long-term health. *Curr. Addict. Rep.* 2021, 8, 19–27.
- Moss, M. *Sucre, Sel et Matières Grasses: Comment les Industriels Nous Rendent Accro*; Calmann-Lévy: Paris, France, 2014; p. 368.
- Singh, A.S.; Mulder, C.; Twisk, J.W.; van Mechelen, W.; Chinapaw, M.J. Tracking of childhood overweight into adulthood: A systematic review of the literature. *Obes. Rev. Off. J. Int. Assoc. Study Obes.* 2008, 9, 474–488.
- World Health Organization. Evaluating Implementation of the WHO Set of Recommendations on the Marketing of Foods and NonAlcoholic Beverages to Children. Progress, Challenges and Guidance for Next Steps in the WHO European Region; WHO Regional Office for Europe: Copenhagen, Denmark, 2018; p. 56.