

Fast Food: Slow Poison

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ABSTRACT

The word Fast food which is also called junk food has been primarily resonating in a diet from last decade. The most common ingredients used for making fast foods are maida, corn flour, saturated fats, preserved raw materials, milk products and preservatives which are harmful to maintain a better health. Diet is a route cause of all diseases. Occasional intake of fast food doesn't cause any diseases. Frequent intake of fast food in a diet has negative impact on health. Though the fast food is tasty, it significantly affects almost all systems of our body like a slow poison which assist in the manifestation of diseases. Pizza, burger, sandwich and bakery products are most often chosen by population. This article is published in order to create awareness among the public to restrict the frequent use of poor nutritious as well as substandard food in routine life for better health.

KEYWORDS: Fast food, Slow poison, Maida, Corn-flour, Preservatives

1. INTRODUCTION

Fast food is a pre-cooked food stuff which can be prepared and served quickly. It is also called as junk food. Fast food was created commercially to accommodate the larger numbers of busy commuters who did not have the time to wait for their meal.

Fast food gained popularity by the lifestyle changes worldwide. In addition, even meals consumed at home are often purchased from catering outlets or home delivery service. The traditional regular family dinner has been replaced by eating 'on the run' at various locations throughout the day. An average US woman and man spend 0.79 h and 0.32 h per day carrying out food preparation and cleaning up respectively. Moreover, 59% of men and 32% of women spend no time on daily food preparation¹.

It has been shown that a typical meal purchased from fast food chains tends to be energy dense and contains

¹ Jaworowska, A., Blackham, T., Davies, I. G., & Stevenson, L. (2013). Nutritional challenges and health implications of takeaway and fast food. *Nutrition reviews*, 71(5), 310–318.

How to cite this paper: Roja L D | Nagamallesh C S | Navyashri C "Fast Food: Slow Poison"

Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-5, August 2022, pp.214-218, URL: www.ijtsrd.com/papers/ijtsrd50426.pdf



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~ 236 kcal/100 g, which is twice as high as the recommended energy density of a healthy diet. Considering the large portion sizes of food eaten out of the home, one meal can provide even more than 1400 kcal. Occasional intake of fast-food does not cause harm to body, but regular intake of it has more negative impact on health.

The most common fast-foods are Pizza, burger, bread, sandwich, chicken, snacks, dairy products (frozen desserts), bakery products etc. are shown in Fig 1.

The common constituents used in fast food are given below

Maida: Maida is a refined wheat flour and chemically bleached (heavily toxic)

- 97% of wheat fibre, Vit B and iron is lost in it.
- It has high glycemic index which may cause type 2 Diabetes mellitus,
- It congests the digestive system due to lack of fibre,
- It does not helps in growth of bacteria in gut,

- It can increase LDL which may leads to cardiac diseases².

Corn-flour: Cornstarch is high in carbs and has high glycemic index. One cup (128gm) of corn flour 488 calories and 117gm of carbs³. One should consume less quantity cornflour and that too occasionally, otherwise it may lead to sudden increase in blood sugar level on intake. Regular intake of it leads to insulin resistance and finally manifests Diabetes mellitus.

Cooking oil: The cooking oil used for fast food most of times are cheap quality to save the cost. Reuse of cooking oil is widely practiced in the preparation of junk foods. Repeated heating of cooking oil causes oxidative degradation of lipids, forming hazardous reactive oxygen species and depleting the natural antioxidant contents of the cooking oil. Long-term ingestion of foods prepared using reheated oil could severely compromise one's antioxidant defense network, leading to pathologies such as hypertension, diabetes and vascular inflammation⁴.

Non-vegetarian: The most common type of chicken used in hotels, restaurant and fast foods is broiler chicken due to its less cost. The broiler chicken is fed with dangerous injection, developmental hormones to enhance meat production and gain weight. Eating these type of meat leads to certain health problems such as weight gain, male infertility, heart problems and onset of adolescence in women⁵ etc. Most of the poultry farms are injecting antibiotics to poultry, over consumption of such poultry is one of the reason for antibiotic resistance in people. Other sea foods like fish prawn etc are to be used immediately. This is possible only if our location is near to sea shore or lake and rivers etc. But nowadays these types of aquatic animals are supplied all over cities, restaurants, hotels without knowing the source of it. It may have preservatives in order to enhance the shelf-life of sea foods. Hence it may have less nutrients and altered chemicals which may be harmful to our body.

Dairy products: Milk has been considered as safe and complete food from ancient times due to presence of macro and micronutrients in it. A1 milk is most abundantly used for consumption and manufacturing dairy products. A1 milk is obtained from western origin like Holstein Friesian, Jersey etc. A2 milk is obtained from cows of India origin. Several researchers have reported BCM-7 exclusively released the A1-beta-casein protein interacts with gastrointestinal tract, internal organs and adversely affects the immune response as well as risk factor for type 1 diabetes⁶. A2 milk is considered safe for human consumption.

Cheese: Cheese prepared from A2 cow was found to be safe. But the cheese used for fast food was prepared from A1 cow due to less cost which is unhealthy which is most commonly used in pizza as well as burger.

- One ounce of cheese contains 80 calories of energy and saturated fatty acids. consumption of high amount of cheese leads to obesity DM etc.,

Preservatives: Preserved vegetables and fruits are more convenient to use when fresh items aren't available. Nowadays many of the food products may have preservatives⁷. It has been reported that chemicals which are used for preservatives have certain side effects. Nitrates and Nitrites are suspected of causing stomach cancer. Benzoates have been suspected to cause allergies, asthma and skin rashes. Reactions to sorbates are rare, but have included reports of Urticaria and contact dermatitis The reactions to preservatives can be very mild to life-threatening. It is best to eat a preservative-free diet whenever possible.

Processed food or pre-cooked food: Almost all the fast foods are "Processed food" that has been cooked, canned, frozen, packaged. Minimally processed foods like bagged spinach, roasted nuts. Heavily processed food like canned tomatoes, chips, nuts which are ready to use contain more amount of sugar, sodium and preservatives than requirement which is harmful to our body.

Microwaving: This procedure is harmful for the micronutrients in the food as it quickly increases the temperature of the food at extremely high temperature where their bonds break, they get oxidised² and become toxic for your body.

Packaging: Some chemical reaction takes place if the warm fast food is wrapped with plastic cover and produces some toxins which is harmful to our health.

Hygiene aspect

Fast food is almost available in low price for which cleanliness is almost compromised during the preparation and serving which may be a huge source of bacterial infection for GI tract like Cholera, gastroenteritis etc.,

² Hu, Q., He, Y., Wang, F. *et al.* Microwave technology: a novel approach to the transformation of natural metabolites. *Chin Med* **16**, 87 (2021).

Fig 1



Hazards of fast-food on Human health

Bone and muscular system

The fast foods which has lots of sugar and carbs produces acids cause damage to the tooth enamel leads to dental cavities. The worldwide prevalence of Obesity nearly tripled between 1975 and 2016³

Respiratory system

Extra calories may cause obesity which can cause shortness of breath and wheezing etc.

Cardiovascular system

Fried foods contains trans fats which increases LDL cholesterol can cause High Blood pressure and increases the chances of Stroke or MI.

Digestive system

Most fast food are loaded with carbohydrates with little to no fiber releases more amount of sugar into blood stream causes insulin resistance and constipation due to lack of fibre content.

The combination of fat, sugar and lots of sodium (salt) can make fast food tastier to some people. But diet high in sodium can lead to water retention, may feel puffy, bloated, or swollen after eating fast food.

³ Obesity and overweight, WHO,[Cited on 07 Jul 2022] Available from [https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight#:~:text=Some%20recent%20WHO%20global%20estimates,%25%20of%20women\)%20were%20overweight_](https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight#:~:text=Some%20recent%20WHO%20global%20estimates,%25%20of%20women)%20were%20overweight_)

Fast foods are not only fiber deficient but void of micronutrients and phytochemicals as well- these foods are also associated with colon and rectal cancers^{8,9}

AHA recommends adults eat no more than 2,300 milligrams Trusted Source of sodium per day. One fast-food meal could have half days' worth.

Effects of fast food on Reproductive system

The ingredients used in junk food and fast food may have an impact on your fertility. One study found that processed food contains phthalates. Phthalates are chemicals that can interrupt hormones balance in body. Exposure to high levels of these chemicals could lead to reproductive issues like PCOS, including birth defects⁴.

Effect on skin

The foods we eat has impact on skin's appearance, but it might not be the foods we suspect. In the past, chocolate and greasy foods like pizza have taken the blame for acne breakouts, but it's carbohydrate which causes spike in blood sugar level leads to acne burst outs.

Children and adolescents who eat fast food at least three times a week are also more likely to develop

⁴ Henderson, A. L., & Colaiácovo, M. P. (2021). Exposure to phthalates: germline dysfunction and aneuploidy. *Prenatal diagnosis*, 41(5), 610–619.

eczema according to one study⁵. Eczema is a skin condition that causes irritated patches of inflamed, itchy skin.

Influence on bonding

The regular family dinner is the time to relish mother's hand food, share joy and sorrow of life with family members whereas it has been gradually replaced by fast-food which is dined outside makes to loose bond with family members which may lead to many misunderstandings. It may be a cause for anxiety and depression for even small fights in youngsters.

Articles related to impact of fast food on health

Weibo et al, conducted a prospective study to prospectively examine the association between pre-pregnancy fried food consumption and risk of incident gestational diabetes mellitus (GDM) Frequent fried food consumption, particularly away from home, was significantly associated with a greater risk of incident GDM¹⁰.

One more article published in the Public Health Nutrition journal, the results reveal that consumers of fast food, compared to those who eat little or none, are 51% more likely to develop depression. In other words this means that "the more fast food you consume, the greater the risk of depression," explains Almudena Sánchez-Villegas, lead author of the study, to SINC¹¹.

Discussion: Fast food is not only the street foods. But also substandard food offering in hotels, restaurants, food caterings services. The ingredients which are used as a base like Maida, corn floor, preserved vegetables have serious bad impact on health are described above. Reusage of yesterdays remained food is harmful to health. Nowadays most of young adults entirely depends on catering outlets or home delivery system for their food. This practice of taking substandard food may be a reason for early manifestation of diseases like Diabetes mellitus, Hypertention, PCOS in adolescents. The baking soda used in preparation of fast food makes the people to eat less which makes them to deprive of proper nutrition. Most of foods preserved for long time may become fermented. Lack of fibre content in some menus offered in hotels and restaurants causes people to suffer from constipation daily. Frozen food is a part of diet even at home. The food preserved for long duration losses its nutritional value and may become toxic in some situation. Fast food has significant poor nutrition which is a causative factor for all life style

⁵ Merina Reznik, Fast Food Linked to Asthma and Allergies in Children, Science Translational Medicine, 2013, Vol 5,p.171

disorders like Obesity, Hypertension, PCOD, atherosclerosis, early occurrence of systemic disorders like DM, psychological disorders like anxiety, depression among youngsters and finally makes the society unhealthy. .Ayurveda says " Even Medicine does not works to improve health if the diet is not proper". Hence an attempt has been made to collectively know the health hazards caused by fast food.

Conclusion: Though Fast food is becoming widely popular for its quick availability, better taste and less expensive to home cooked food, it has significant negative impact on health. In the current scenario, the whole world is turning into an hospital. Because every home has one or more diseased patient. With evolving population, science and technology, life style diseases are also increasing simultaneously with the poor quality of life. So each individual should be aware of prons and cons of each food substances chosen by them as well as try to choose standard and fresh raw food materials into their kitchen for their better health.

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