FAST FOOD ... AN UNHEALTHY SOLUTION TO A HEALTHY “SLOW-COOKING” FOOD

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INTRODUCTION
Fast food is a term used for food high in calories, low in nutrients and one that is usually quick to prepare. The term was coined in 1972 by Michael Jacobson, Director of the Center for Science in the Public Interest.

Fast foods in colloquial term implies that home-cooking is “slow-cooking”. The term is also applied to foods that are either perceived to have little or no nutritional value, to those which have nutritional value but which also have unhealthy ingredients when taken on a regular basis and to food stuffs considered totally unhealthy for consumption. Definitions of food items related to ‘fast foods’ with examples is highlighted in the Table.

Consumption of fast-food is highly prevalent in almost all parts of the world and does not spare any age, gender, racial or ethnic groups. ‘Fast Food’ mania is not peculiar to the young, adolescent and adults but is now also a favorite amongst elders. In short, it is an individual’s delight of not only a 12 year old child but also of a 60 year old grandmother who enjoys this delicious and affordable food that is just a stone’s throw from one’s home.

The magnitude of fast food rage in India
Man today, is unable to cope with the fast day to day life, which is increasing by the minute. He is today trapped by ‘instant-mania’. Our day to day living dialogue is prefixed by words like instant, fast, quick, rapid, immediate, urgent, direct.

It is not therefore surprising, that the basic requirement of mankind i.e. food has a prefix too- ‘Fast’.

In India, ‘fast foods’ is a growing problem because of the increasing Western influences in the food pattern. This is partly media driven, targeting the impressionable minds of children and young adults. The total value of junk food consumed in India in 2003 was about Rs 41,000 crore of which, rural areas accounted for a little over Rs 22,000 crore. The market was split almost equally between rural and urban areas, despite the rural population outnumbering the urban by a ratio of about 3 to 1 [1]. The National Sample Survey data for the category ‘beverages, refreshments and processed foods’ in the year 2005, showed that the money spent on junk food was almost 25 per cent higher than the Rs 33,000-crore spent on edible oils. According to the National Sample Survey Organisation survey released by the Delhi Government, a person residing in Delhi spends on an average Rs 371/- towards processed food and beverages per month and approximately Rs 290/- towards vegetables, and a third of this on fruits. In rural India Rs 264/- is spent on junk and processed food and Rs 284/- on vegetables [2].

Constituents of fast foods
Fast foods have high levels of trans-fat and carbohydrates that are not only unhealthy but also addictive. This addictiveness creates a vicious cycle making an individual crave for these foods and difficulty in choosing healthy food. Energy density of fast food is more than twice the recommended daily...
allowance [19] with higher proportion of calories being derived from total and saturated fat [20]; Carotene, vitamin A, vitamin C content is low and so are the micronutrients like calcium and magnesium. Sodium and potassium contents are high [21].

India has rich heritage of foods and recipes. Popular north Indian fast foods include aloo tikki, bhel puri, chaat, pakora, chole bhature, pav bhaji, dhokla, samosa and panipuri. Most of Indian fast foods are prepared by deep frying in oil, especially trans fat and saturated fats. Foods that are baked, roasted or cooked in tandoor have lower fat content. Trans fat content in bhatura, paratha and puris is 9.5%, 7.8% and 7.6%, respectively as compared to 4.2% in regular French fries [22]. South Indian foods like idli and uttapam have low fat content but are rich in carbohydrates and proteins.

Small, Medium or Large portions??

Portion sizes for menu items (super size, jumbo size etc) and meals have been relabeled as "small," "medium," and "large." The difference between the different portions in terms of cost is insignificant. It is therefore not uncommon to order the ‘large’ size for a small extra cost, failing to comprehend in doing so that the ‘extra numbers’ in fact results in over consumption and thereby an increase in energy, fat, and sodium consumption. Larger portions of ‘fast foods’ are taken while watching television or while driving. The distraction towards these settings results in over eating and decreased awareness of satiety signals. Proximity of fast food joints to households also predisposes to increased consumption.

Other reasons why one consumes more calories than required may be due to “passive over-consumption” i.e. in the presence of food rich in calories, the body is unable to sense that the need for smaller portions or failure to compensate later in the day by eating less.

Influence of Media on crave for Fast Foods

Over the past two decades, a flurry of fast food trends has reached epidemic proportions in India.

Television advertisement has an important role in promoting unhealthy dietary practices, including promoting diets that are rich in fat, sodium or added sugar [4]. Apart from advertising through television, other promotional media include cinema, radio, newspaper, magazines, and billboards [5].

Fast food sale is being promoted through sponsorship of sports or cultural competitions with attractive free gifts or discounts on purchase of their brand.

Due to these predatory marketing of western brands, fast foods has rapidly altered public perception and today it has become a status symbol to eat in fast food chains. Children and adults prefer fast foods over balanced diets. The very poor think it is a sign of advancement if one takes these products.

Others factors leading to fast food consumption

These include changing socioeconomic trends, long working hours and more working women with fewer hours to prepare food at home.

For children and adolescents skipping breakfast, fast food comes handy. A positive correlation has been noted with skipped breakfast. There is an increase in fast food consumption, and gain in body mass index [6]. Socio economic status too influences fast food consumption. In a study conducted in Hyderabad, children from higher socio-economic status preferred fast foods to traditional foods despite their adequate knowledge on good nutrition and health [7]. Parental consumption of fast foods was found to influence its consumption among children (p=0.024). In this study it was observed that on a daily basis, as many as 68 (22.7%) children were not taking vegetables and 206 (68.7%) were not taking fruits. The study concluded that higher frequency of fast food consumption in a week was associated with overweight or obesity [8].

In a study of 300 adult participants from South India, 292 (97.3%) were fast food users and 42 (14.4%) consumed these foods on a daily basis. Overall, 41(13.7%) were overweight and 8 (2.7%) were obese. Majority of participants were either introduced to fast foods through television commercials (64.3%) or were ‘fed up’ (57%) of home food.

Impact of Excessive Fast Food Consumption

Children and adolescents: The nutritional needs in children and adolescents are increased because of the growth spurt at this point of time. A sound and healthy eating pattern is therefore important as it can reduce chronic morbid illnesses like obesity, coronary heart disease, hypertension, type 2 diabetes, osteoporosis, and diabetes at a later date [9-17]. Unfortunately, this vulnerable group is exposed to increased and frequent consumption of fast foods.

Adults: What's good for business, however, may not be best for India's public health. Diet-related illnesses are rising steeply. Excess consumption ‘fast foods’, coupled with low levels of physical activity, can lead to obesity and hypertension. High content of trans fat predisposes to coronary heart disease [18].

### Table Definitions of Types of Fast Foods

| Type of Food | Definition | Examples |
|--------------|------------|----------|
| Fast food    | Foods sold in a restaurant or store which are rapidly prepared and quickly served in a packaged form for take away | Burgers, pizzas, fries, hamburgers, patties, nuggets. |
| Junk food    | Energy dense foods with high sugar/ fat/ salt content and low nutrient value in term of protein, fibre, vitamin and mineral content | Chips, chocolate, ice cream, soft drinks. |
| Instant foods| Foods that undergo special processing that are ready to be served once dissolved or dispersed in a liquid with low cooking time | Noodles, corn flakes, soup powder. |
| Street foods | Ready to eat foods and beverages prepared and sold by hawkers or vendors in street Chaat, gol guppa, samosa, tikki, noodles or other public places | Chawmein, burgers etc. |

Advertising these by film celebrities, sports stars, animation and cartoon characters makes them even more desirable [3]. Diet rich in free sugars increases risk of dental caries. Low levels of calcium and magnesium contributes to osteoporosis.
More than 50 per cent of India’s population is under 25 years of age. This is the vulnerable group that is exposed to ill effects of fast foods. In years to come, morbidity like obesity, hypertension, coronary artery disease etc. in these individuals is likely to impose a massive public health burden to the country.

Strategies to Reduce the Trend of Fast Food

An ideal recommended healthy diet should be a balance of moderate amounts of total fat, saturated fatty acids, and cholesterol, and higher contents of complex carbohydrates, fiber, calcium, and antioxidant nutrients (Vit A, C and E).

1. Health education and school based intervention programs can improve the diet pattern amongst of children [23].
2. Price reduction of healthy foods is one of the most effective strategies to increase its purchase. [24]. In the battle against the bulge (obesity), the Indian state of Kerala has for the first time announced a “fat tax” at popular fast food restaurants in order to discourage unhealthy eating habits. The government is in the process of recommending an imposition of 14.5 percent tax at fast food restaurants such as McDonald’s, KFC, Pizza Hut and Domino’s. Earlier this year, the northern Indian state of Bihar introduced a 13.5 percent luxury tax on samosas, a common fried street food, and other snacks and sweets. Such legislations may help to curb the trend of fast foods.
3. Nutritional labeling and regulation of marketing are other measures to curb this menace. Nutritional labeling refers to disclosure of nutritional content (calories, added sugar, total fat, Trans fat, saturated fat, sodium and protein content) in product labels.

In a recent study conducted on parents of children aged 3-6 years, it was observed that parents who were offered the nutritional value menu card ordered food of lesser calorie [25].

The Centre for Science and Environment (CSE) reports weak food labelling laws as a cause for the low consumer awareness.

In a two-month study, the CSE, analysed specific fast -food brands such as Pepsico’s Lays, McDonald’s Happy Meal, Haldiram’s Aloo Bhujia, and KFC’s Fried Chicken. The study found that one packet or one serving of any of the above items contains harmful levels of trans-fats, salt and sugar. The companies in question, however, strongly deny these claims, stating that their process of preparation does not allow use of trans fats. The study concluded that the labeling was misleading the consumers by quoting small servings, much smaller than in a traditional pack and secondly stating that trans-fats in the standard-sized packs was labelled as zero trans-fats for say, 100g servings i.e. even packs labelled as zero trans fats had some in it.

Thus, it is desirable that nutritional value is provided in menu, menu boards, food wrappers and containers in fast food restaurant. This might restrict the quantity and choice of food.

d. Regulation of marketing: The Union of European Beverages Association (UNESDA) has laid down guidelines in restricting marketing communication in printed media, web sites, or programs that are aimed at children. It directs that no appeal should be made directly to children, to persuade parents to buy food products for their children, and finally not to encourage promotional activities for children to consume larger quantities for participation.

In India, the media advertisement and publicity is under the control of Ministry of Information and Broadcasting (Government of India). A committee has been set up by the Ministry to decide whether the advertisement violates the rules. It also issues notices to television channels in case of violation. Today, there is an urgent need to formulate guidelines related to quality of food products advertised in Indian media.

Can we overcome the ‘epidemic of ‘fast food’ crave?

Few suggested measures include

The DO’s

1. Begin the day with a good breakfast. Morning fatigue and lack of energy are most apt to afflict breakfast skippers, and they are more likely to end the day with over-eating. Select places offering a variety of salads, soups, vegetables, whole grain bun and nutritious options.
2. Choose smaller-sized serving options. If served large portions, ask for a “carry bag” to carry the excess food.
3. To help supplement and balance the fast food meal, exercise nutritious choices for snacks like fresh fruits, vegetables, and/or yoghurt.
4. Avoid getting trapped in the single choice menu; choose a variety.
5. Try salad bar - lettuce, tomato, onion, green pepper and other vegetables on pizza or sandwiches.
6. Select fruit juice or milk (skim or low-fat).
7. Dessert choices: These are often full of calories and sugar with little nutrient value. Skip if you can.
8. Shakes preferred. This reduces intake to a minimum.
9. Limit soda consumption. An extra large soda alone from any fast-food restaurant contains a whopping 400 calories.

DO Not’s

1. Pass It Up: Make it a family goal not to stop by fast food restaurants especially during weekends. Focus instead on having home prepared meals that one can grab even if in a hurry.
2. Pass It On: Parents need to set a good example for their children. Avoiding fast foods is the best option.
3. Give Them An Option: Make sure children have an access to a plate filled with brightly colored vegetables, fruits and sprouts.
4. Fresh lime juice, coconut water and fresh fruit juices should be preferred to sodas and soft drinks as beverages.
5. Avoid chocolate bars as gifts or reward to the children.
6. Regular size meal may be opted against ‘mega meal offer’ or ‘combo meal offer’.
7. Replace naan with tandoori roti as low fat option breads in Indian menu.
8. Food items can be stir fried in preference to deep fry. This will decrease the fat content.
9. Dough used for preparing poorilpakoras should be thick. Avoid using ghee or oil for making the dough as this might increase oil absorption.
In conclusion, the myth that one needs much longer time to prepare and cook healthy meals at home has been driven and circulated by the fast-food industry. It is perfectly possible to prepare healthy weight-reducing meals in minutes by cooking simple one-pot meals, maintaining a stock of quick-cook foods and by cooking a week's meal in one easy session. The mantra should be 'Let fast foods be part of a well-balanced diet, not the overall diet'. As always, variety and moderation are the key principles in providing a healthy diet for children as well as adults.

References

1. Ranade S. Financial Daily from THE HINDU group of publications, Wed, Jul 13, 2005
2. Asha Kiran S, Deepthi R. Fast foods and their impact on health. Journal of Krishna Institute of Medical Sciences University 2012; 1:7-15
3. Kelly B, Hattersley L, King L, Flood V. Persuasive food marketing to children: use of cartoons and competitions in Australian commercial television advertisements. Health Promot Int 2008; 23:337-44.
4. Batada A, Seitz MD, Wootan MG, Story M. Nine out of 10 food advertisements shown during Saturday morning children’s television programming are for foods high in fat, sodium, or added sugars, or low in nutrients. J Am Diet Assoc 2008; 108:673-8.
5. Hawkes C. Marketing activities of global soft drink and fast food companies in emerging markets: a review. In: Globalization, Diet and Non communicable Diseases. World Health Organization 2002. Available from: whqlibdoc.who.int/publications/9241590416.pdf. Accessed July 14, 2010.
6. Niemeier HM, Raynor HA, Lloyd-Richardson EE, Rogers ML, Wing RR. Fast food consumption and breakfast skipping: Predictors of weight gain from adolescence to adulthood in a nationally representative sample J Adolesc Health 2006; 39:842-9.
7. Vijayapushpam T, Menon KK, Rao RD, Maria Antony G. A qualitative assessment of nutrition knowledge levels and dietary intake of school children in Hyderabad. Public Health Nutr 2003; 6:683-8.
8. Joseph N, Nelliyanil M, Rai S et al. Fast Food Consumption Pattern and Its Association with Overweight Among High School Boys in Mangalore City of Southern India. J Clin Diagn Res 2015; 9: LC13–LC17.
9. Slattery ML. Diet, lifestyle, and colon cancer. Semin Gastrointest Dis 2000; 11:142-146.
10. Stender S, Dyerberg J, Astrup A. Fast food: unfriendly and unhealthy Fast food health consequences. Internat J Obesity 2007; 31, 887-890
11. Barker RM, Baker MR: Incidence of cancer in Bradford Asians. J Epidemiol Community Health 1990; 44:125-129
12. Dhir V, Mohandas KM: Epidemiology of digestive tract cancers in India. III. Liver. Indian J Gastroenterol 1998; 17:100-103
13. Blesch KS, Davis F, Kamath SK: A comparison of breast and colon cancer incidence rates among native Asian Indians, US immigrant Asian Indians, and whites. J Am Diet Assoc 1999; 99:1275-1277.
14. Divan HA: Cancer incidence and mortality in Asian Indians: a review of literature from the United States, South Asia, and beyond. Asian Am Pac Isl J Health 2003; 10:73-85.
15. Smith LK, Botha JL, Benghiaat A, Steward WP: Latest trends in cancer incidence among UK South Asians in Leicester. Br J Cancer 2003; 89:70-73.
16. Stepahnie DDE, Correa P, Boffetta P, Deneo-Pellegrini H, Ronco AL, Medilaharsu M. Dietary patterns and risk of gastric cancer: a case-control study in Uruguay. Gastric Cancer 2004;7:211-20.
17. Kubo A, Corley DA. Body mass index and adenocarcinomas of the esophagus or gastric cardia: a systematic review and meta-analysis. Cancer Epidemiol Biomarkers Prev 2006;15:872-8.
18. Asgary S, Nazari B, Sarrafzadegan N et al. Evaluation of fatty acid content of some Iranian fast foods with emphasis on trans fatty acids. Asia Pac J Clin Nutr 2009; 18:187-92.
19. Printice AM, Jebb SA. Fast foods, energy density and obesity: a possible mechanistic link. Obesity Rev 2003; 4:187-94.
20. Schmidt M, Affenito SG, Streigl-Moore R et al. Fast food intake and diet quality in black and white girls. Arch Pediatric Adolesc Med 2005; 159:626-31.
21. Bowman SA, Vinyard BT. Fast food consumption of US adults: impact on energy and nutrient intakes and overweight status. J Am Coll Nutr 2004; 23:163-8.
22. Indian food worse than western junk. Available from: timesofindia.indiatimes.com/article show/1755418.cms.
23. French SA. Pricing effect on food choices. J Nutr 2003; 133:841.
24. Gortmaker SL, Peterson K, Wiecha J et al. Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. Arch Pediatr Adolesc Med 1999; 153:409-18.
25. Tandon PS, Wright J, Zhou C, Rogers CB, Christakis DA. Nutrition menu labeling may lead to lower-calorie restaurant meal choices for children. Pediatrics. 2010; 125: 244-8.