

## Fast Food: “The Real Costs Never Appears on the Menu”

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Menus, as lists of prepared foods, provides origin of the food items (Thai, Chinese, Continental), restaurant’s mission, chef’s philosophy of cooking, brief idea about food processing, special combo offers along with their cost. The colorful menu or flyers attracts fast food lovers to spend more and more in their favorite restaurants for both its decadent yumminess and its ultra-convenience. Calculation of monetary cost gets more priorities than the actual hidden health costs, as usual. US fast-food sales increased exponentially between 1970 and 2000, from \$6 billion to \$110 billion [1]. During this time, obesity rates among US adults doubled and it is expected that 85% of US citizens will be affected by obesity by 2030 [2]. The real-life cost of fast foods in terms of obesity, diabetes and cardiac complications are well documented, repeated several times in newspapers, health bulletins, journals and so on. New York City became the first jurisdiction in the US to require restaurant chains to post calorie information on menus and menu boards [3]. However, the dark side of the fast food consumption is not ended yet; some more are there to look forward.

Fat-filled snack foods may heighten the risk of developing advanced age-related neuro-degeneration, the leading cause of vision and hearing impairment. Researchers from the University of Bristol warn that such poor diets can also permanently damage the nervous system, particularly vision [4]. Fast food negatively affects brain health by damaging regions relevant to memory tasks and amplifies the risk of developing memory loss and Alzheimer's disease later in life [5]. Monosodium Glutamate is one of the most widely used food-additives in commercial foods. It has linked with obesity, metabolic disorders, thyroid disorders, Chinese restaurant syndrome (headache, skin flushing, and sweating), neurotoxic effects and detrimental effects on the reproductive organs [6-10]. As it triggers tenderness of the peri-cranial muscles (most prominent clinical finding in tension-type headache), people with migraine should strictly avoid it. Gluten, another notorious protein responsible for auto-immune disorders, was found in more than 50% pizza and pasta samples in “Gluten-Free” labelled restaurants [11].

A new study in PLOS Medicine finds eating unhealthy food is associated with a higher risk of developing cancer [12]. People who ate the most junk food showed a higher risk of stomach, colorectal, and surprisingly, lung cancers. Separately, men showed a higher risk of lung cancer, and women showed a higher risk of liver and postmenopausal breast cancers [13]. Nitrate and nitrite, which are abundant in processed meats, are potential carcinogens found in breast, prostate, pancreas, colorectal cancers along with non-alcoholic fatty liver disease and insulin resistance [14-20]. A moderate increased risk of irritable bowel syndrome is reported in a French Internet based study [21]. Symptoms of bloating, gas, or pain passing bowel movements may be aggravated by high fast food consumption [22]. Use of Aspartame, a low-calorie sugar substitute in Coke Zero or Diet Coke is still controversial due to possibility of cancer development [23].

Western diet is characterized by a high intake of saturated and omega-6 fatty acids, reduced omega-3 fat intake, an overuse of salt and too much refined sugar [24]. “Ingestion of sugar, in particular, can accelerate premature aging”, says The Journal of Clinical and Aesthetic Dermatology, as exceeded free blood sugar promotes cross-linking of skin collagen fibers [25,26]. Interestingly, people hooked on fast food and have limited intake of vegetables and fruits. High salt intake, including salt preserved foods, smoked or dried meat and fish, pickled food, low intake of fresh fruit and vegetables, obesity are among the most contributory to stomach and colorectal cancers [27]. Fast food and carbonated beverages often contain large amounts of phosphate additives. This, according to another leading journal *In Vivo*, hampers kidney functions and bone health [28]. Higher pre-pregnancy consumption of fast foods was associated with an increased risk of diabetes in pregnancy and high birthweight in first-time mothers, found in a southwest Sydney-based study [29].

In addition, caffeine content of cola and carbonated beverages are responsible for hyperactivity/attention deficit in children [30]. A study among Iranian children and adolescents reveals that junk food consumption was significantly associated with mental distress, including “worry, depression, confusion, insomnia, anxiety, aggression, and feelings of being worthless.” [31]. Junk food consumption may increase the risk for psychiatric distress and violent behaviors in children and adolescents [32]. A Newcastle-based study among elderly people shows that dietary pattern high in red meats, potato or butter may adversely affect muscle strength and physical performance in later life [33].

Over-consumption of cheese, yogurt, modified grains (bread, pasta, crackers, cereals) may jeopardize testosterone, male sex hormone that plays a major role in fertility and sex drive, according to Dr. Michael Hirt, founder of the Center for Integrative Medicine in California [34]. In addition, diets that are low in whole-grain foods, legumes, vegetables and fruits, and high in red meat, full-fat dairy products, and sugary foods and beverages are all associated with an increased risk of erectile dysfunction [35]. An official publication of the Federation of Obstetrics and Gynecological Societies of India says that popularity of junk food in adolescence is responsible for the increasing polycystic ovarian syndrome in adolescent girls and is challenge for gynecologists treating them [36]. Market available ice creams or raita salads in hotel-restaurants are storehouse of *E. coli* bacteria, can be responsible for diarrhea, abdominal cramp, fever, vomiting and uncomplicated urinary infections sometimes [37]. The so-called condensed milk added as artificial sweeteners is nothing but over-boiled palm oil that deposits in the deep tissues, imparts metabolic disorders and poorly eliminates.

Healthier foods cost nearly twice as much as unhealthier foods per serving on an average among high income countries [38]. The scenario is opposite in Bangladesh. In capital city, people often pay restaurant bills equivalent to more than 500% cost involved in regular meals. Again, traditional fast foods including Singara, Samucha, Puri, Piau, Lachcha Shemai and Paratha all are generally deeply fried. Commercially available packaged bakery and fast foods often do not contain any declaration of their fat content [39]. Occasional fast food consumption (considered as cheat foods) has been encouraged in various bodybuilding websites, as it stimulates many enzymes that were previously deactivated. But in Bangladesh, Non-Communicable Disease Risk Factor Survey 2013, consumption of inadequate fruit and/or vegetables (<5 servings per day) was found in more than 90% people [40]. Strong advocacy on the detrimental effects of fast food consumption should be routinely done in educational institutions. But Alas! Most fast foods are consumed by youth and children from the nearby shops of educational institutions or the canteens run by the institutions themselves.

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