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RESEARCH ARTICLE

HARMFUL EFFECTS OF JUNK FOOD AND HEALTHY ALTERNATIVES IN AYURVEDA

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Abstract

Ahara, nidra and brahmacharya are the basic needs of life. Among them *Ahara* has been recognized as an important factor for human beings in health and diseased state. Food supplies bio-energy to the body and plays a decisive role in development, sustenance, reproduction and termination of life. In today's life style, fast food / junk food are very popular. High content of trans fat in such food items affect the health adversely. Junk food and children have strange affinity to each other. Eliminating the temptation for junk food is the one way to avoid it. Keeping good food nearby and having meals right on time may help in this direction. With the changing life style, fast food and Junk food are becoming part of food habit. Such food is high in trans-fat and has comparatively less nutritive value, resulting in health issues like weight gain and obesity. Hence, it is the need of hour to evaluate the sedentary lifestyle, food habits and harmful effects. The aim of this article is to compile healthy food preparations in Ayurveda and thereby reducing the use of junk foods in people.

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Introduction:-

Food plays an important role in development, sustenance, reproduction and termination of life. In today's life style, junk food is very popular and such food items affect the health adversely. With increase in consumption of junk food, there is increase of menstrual problems in women i.e. early menarche, excessive menses, irregular menses and dysmenorrhea. *Ahara, Nidra and Brahmacharya* are basic needs of life. With the changing life style, fast food and Junk food are becoming part of food habit.

Pre prepared or packaged food that has low nutritional value is called junk food. Junk foods provide suboptimal nutrition with excessive fat, sugar or sodium per kcal. Those commercial products, including candy, bakery foods, ice creams, salty snacks and soft drinks, which have little or no nutritional value but do have plenty of calories, salt and fats. While not all fast foods are junk foods but, most are. Fast foods are ready to eat foods served promptly after ordering. Some fast foods are high in calories and low in nutritional value, while others like salads may be low in calories and high in nutritional value. Over the last 20 years there has been an increasing trend of consumption of sweetened beverages (fruit juices and drinks, carbonated drinks, energy drinks) and fast foods among Indians. Easy availability, convenience, palatability, working parents, attractive presentation, vigorous marketing strategies, low cost and advertisements are considered the major factors for high consumption of these products. Fast food industry is expanding at the rate of 40% every year. A survey conducted by Centre of Science and Environment (CSE) on 13200 children aged between 9-14 years documented that 93% of children eat packaged food and 68% consume

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packaged sugar sweetened beverages more than once a week; 53% consume these products at least once in a day. Almost one fourth of the school children consume ultra-processed food high in fat, salt or sugar such as pizza and burger, more than once in a week. The major harmful effects related to intake of fast foods and fruit juices are obesity and its associated complications, microorganism contamination leading to infections, allergies and risk of cancer due to carcinogenic and allergenic properties of some food additives. As per National Family Health survey 2015-16, the number of people with obesity has doubled over last 10 years in India, with an increasing trend of overweight in adolescents. Energy drinks also have added adverse effects due to their high caffeine content leading to neurological and cardiac dysrhythmias.

In this article, efforts are taken to compile healthy alternatives of junk food in Ayurveda and thereby reducing associated complications among public.

Review of Literature:-

Increasing globalization, improvements in transportation and technical development have changed dietary practices and lifestyles especially in cities. A wide variety of foods such as bread, chapatti, rice, milk, fruits, vegetables etc. are often consumed. Besides this, pulses, legumes, beans, nuts, egg, meat, fish, etc. are part of our daily meals. However, many foods are manufactured or modified in the food industry, such as soya nuggets, non-dairy cream, instant noodles, beverages, ready to eat snacks, breakfast cereals, etc. A wide range of processed foods are available, some of which are good for health but some may have unfavorable effects. Interestingly, many unhealthy foods are more attractive, palatable and irresistible. Many of them are made by street vendors and help in satisfying appetite. Frequent indulgence in such foods, due to ignorance about their health outcomes, may have adverse effects on health and nutritional status.

Junk Foods

Junk food implies that food which has little nutritional value and contains excessive fat, sugar, salt, and calories with little fibers, protein, vitamins or minerals. The term 'Junk food' was coined by Michael Jacobson, director of Centre for Science in 1972. Junk food is more popular because of experience of great taste, better shelf life and easy transportation. The junk food advertising also plays a great role in junk food's popularity. But it should be avoided, because of lack of energy, high cholesterol and poor concentration of mind. It causes a lot of harmful effect on the body as in obesity, diabetes, heart disease and various types of skin diseases and even cancers. Eliminating the temptation for junk food and developing awareness for fitness help to avoid the junk food from healthy diet regimen.

Junk foods include sweets, salted snack foods, fried fast food, cookies, candies, chips, pizza, burgers, ice cream, milk shakes, soda, fizzy carbonated beverages, instant noodles etc.

Common Junk Foods

Various types of junk foods are available in market out of which the most popular junk food is soft drink, pizza, hamburgers, potato chips, ice-creams, hot dog, pakora, chowmins, French fries, cheese chilli, pav bhaji etc

Pizza

The pizza is heavily laden with sodium and carbohydrates, flour and cheese. They contain high calorie counts a cause for cardiovascular diseases.

Burgers

Burgers with its deadly combination of mayonnaise, cheese, high levels of dairy fat topped with unhealthy sauces filled with sugar and sodium, they tend to increase cholesterol levels owing to saturated fats. Hence, Burgers occupy a primary position as being one of the worst junk foods, offering 1360 calories per serving.

Deep fried stuff

Deep fried stuffs such as French fries, fried chicken, potato chips, kebabs and the most popular Indian samosas are the ultimate sources of trans fat, elevating cholesterol levels and leading to clogging of arteries on the arterial walls of the heart. They are overloaded with sodium that increases the risk of obesity, hypertension and heart diseases.

Breakfast cereals

Cereals like porridge, oats and cornflakes, covered with unhealthy sugars are junk itself.

Candies

The easily available vibrant colorful array of desired candies, toffees, jellies and candy buttons packed with high doses of fructose and sucrose create an instant feel good factor increasing blood sugar levels.

Donuts

The epitome of junk food and a universal favorite, Donuts drizzled with sinful mouth-watering chocolate, jam and tempting sugar toppings increase the risk of developing cancer. They jeopardize health due to the blending of these ingredients along with hydrogenated oils, refined sugar and white flour deep-fried in extreme heat. When fried they release harmful cancer causing carcinogens causing harmful effects on the body.

Pastries and cakes

Cakes happen to be one of the best options for desserts. However, wedge contains sugar in high magnitude combined with a highly raw processed variety of carbohydrates that contain high glycemic index thereby increasing the blood glucose levels in the body. Besides the cream prepared with rich chocolate and eggs, dense with trans fat, is detrimental for health.

Ice Cream

It is rich in sugar and fat; generally cause an expanding waistline, due to metabolic imbalances caused by the elevated levels of fat in the dessert. Therefore, this leads to obesity and decreased appetite resulting in an unhealthy digestive tract.

Carbonated beverages

With high quantities of sugar, insignificant amounts of minerals and harmful chemicals, fizzy carbonated drinks, popularly known as soft drinks available in the market. Apart from this, they contain high levels of caffeine that are harmful for health. These cause acidity caused by the carbon dioxide released in the body. They affect development of bones due to the elimination of calcium that help counteract the balance of acid in the body. Other drinks available with a sugar free tag contain aspartame, an artificial sweetener, which when taken for long periods cause dangerous health consequences.

Instant noodles

Due to the inclusion of certain sodium additives, instant noodles contain increased carbohydrates and sodium, lacking in essential proteins, vitamins, fiber and minerals. Another aspect is that the containers of instant cup noodles discharge certain substances and chemicals akin to hormones, along with dioxin, a chemical which saturate the noodles when hot water is added. Covered with wax, substances like propylene glycol and ajinomoto (monosodium glutamate) have negative effects on health often resulting in hypertension, stroke, organ damage, cancer and a weakened immune system.

Processed Food

It applies to any food that has been altered from its natural state in some way. Anything that's been processed may contain added salt, sugar and fat. Examples of common processed foods include, breakfast cereals, cheese, tinned vegetables, bread, microwave meals or ready meals and soft drinks. These foods can also be higher in calories due to the high amounts of added sugar, salt or fat in them. Processed foods are bad for health. They are hyper rewarding and lead to overconsumption. They are often high in refined carbohydrates, low in nutrients and low in fibers. This category of foods includes a lot of harmful substances like MSG, trans fats, high fructose corn syrup and soda.

When junk food is consumed very often, the excess fat, carbohydrates and processed sugar found in junk food contributes to an increased risk of cardiovascular disease, diabetes, weight gain and many other chronic health conditions.

Disadvantages of Junk Food

Here is some junk food facts that help to understand the harmful effects associated with them. Some of them are long term while others are short terms effects.

The fat content has high cholesterol level. High calorie content with sugar can lead to obesity. Cholesterol and salt can increase blood pressure, stroke and heart disease in chain. Excessive salt can impair the functioning of kidney too.

1. **Lack of energy:** This is known as short term adverse effect resulting from eating junk food as they don't provide the essential nutrients like vitamins, protein and fibres.
2. **Poor concentration:** This is another result of junk food habit. These are traced to effect in immediate and medium term periods when people have a splendid junk meal rich in oil, they feel drowsy and fail to concentrate. Over sustained periods of junk food eating, blood circulation drop due to fat accumulation, lack of vital oxygen, nutrients and protein particularly can stale their brain cells temporarily.
3. **High cholesterol:** Apart from forming plaques and constricting arteries cholesterol also affects liver where it is metabolized. High cholesterol due to junk food and diet strains liver damaging it finally which is a long term effect.
4. **Heart diseases:** Junk food is a major cause of heart diseases (Myocardial infarction) due to plaque formation in arteries which demands heart to put in extra effort to pump blood on the downstream. On the upstream there is lack of returning blood to heart, this causes damages to heart – heart fatigues due to continuous extra effort and deficient oxygen supply.
5. **Low nutrition value:** The nutritional value of junk food is about one on a scale of 1 to 10, which is the least. This value is lost in the process of making

Harmful Effects Of Junk Food

Obesity

It is defined as an excess of body fat or body weight, i.e. 20% over the ideal. It is attaining epidemic proportions in developed nations and now be considered as a chronic disease. Obesity is a multi factorial disorder of energy balance in which chronic calorie intake is greater than energy output. It is characterized by an excessive body mass index (BMI), which is weight (kg) divided by the square of height (m). A subject with a BMI of 20-25 is considered as having a healthy body weight, one with a BMI as 25-30, overweight and BMI> 30 as obese. Suitable diet and proper exercise play an important role in the treatment of obesity.

Diabetes mellitus

It is a chronic metabolic disorder characterized by hyperglycemia, glycosuria, hyperlipidemia, negative nitrogen balance and sometimes ketonemia. Diabetes mellitus is of two types, Type I (insulin dependent) and Type II (insulin independent). Over 90% cases are of Type II diabetes, which are mainly due to irregularities in food consumption like excessive intake of junk foods.

Hypertension

Regular use of junk food can be a cause of hypertension. Junk food consists of salt in abundance which raise the blood pressure causing hypertension. If hypertension is not effectively treated it may end up in coronary thrombosis. One of the causes for primary hypertension is obesity.

Heart diseases

Junk food is a major cause of heart disease. The onset and remedy both take a long time.

Dental cavities

Excess consumption of junk food can cause accumulation of food items on teeth spaces and plaque formation which finally results in dental cavities.

Kidney disease

Junk food is rich in salt, sugar and fat, so it causes kidney impairment like polyuria, renal failure and hyperuricaemia.

Neurological disorders

Mental disorders i.e. drowsiness, laziness, dyslexia, attention deficient hyper activity disorder [ADHD], loss of balance and lack of concentration occur due to excessive eating of junk food.

Skin rashes

Hypersensitivity disorder occurs due to excessive use of junk food. Junk food consists of a lot of additives and chemicals which causes skin rashes.

Cancer

Obese people have an increased risk of Cancer in colon, breast, prostate, gallbladder, uterus, ovary and skin.

Hypoxia

Lack of oxygen supply in the body causes hypoxia due to accumulation of fat in the arteries.

Behavioural problems

Consumption of junk food in early childhood can result in behaviour associated problems like hyperactivity, aggressiveness etc.

Healthy Alternatives In Ayurveda**Ghritha pooraka** (Susrutha samhitha, sutrasthana 46/393)

Ingredients: Wheat dough, Milk, Coconut gratings and Sugar

Make into small thin disc and fried in ghee

Benefits: Pleasant (*hridya*), Decrease *vata* and *pitta*(*vatapittahara*), Increase *kapha*(*kaphakara*), aphrodisiac(*vrishya*), heavy (*guru*)and helps in growth of *raktha* and *mamsa dhathus* (*rakthamamsavrudhi*).

Uchee (Half riped baked cereals) (Bhava prakasha)

Half ripe spikes of cereals baked on flame of grasses.

Barly, wheat, maize etc.

Benefits: Increase *kapha* (*kaphakara*), energetic (*balya*), light (*laghu*), decrease *vatha* and *pitta* (*vathapittahara*)

Palalam (Bhava prakasha)

Method: Equal amount of *Tila* (*Sesamum indicum*) and Jaggery (*Guda*) are pounded together and mixture is made into balls.

Benefits : Laxative(*malakrud*), aphrodisiac(*vrushya*), decrease *vatha*(*vathahara*), increase *kapha* and *pitta*(*kaphapittakara*),nourishing(*brumhana*),heavy(*guru*),unctuous(*Snigdam*), ceasing excessive urine(*Mutradyanivartanam*)

Balabhadrika (Bhava prakasha)

Roti prepared from flour of dry black gram.

Benefits: Dry (*Ruksha*), hot in potency (*Ushna*), increase *vatha* (*Vatala*), energetic (*balya*), digestive (*Agni deepaka*).

Mandaka (Bhava prakasha)

Wheat flour is made into soft bolus by sprinkling water and repeatedly beaten by hands and made into cakes with the help of hands. Baked on an open pan or on a piece of earthen vessel on a low flame. It can be consumed along with ghee and milk with sugar.

Benefits: Nourishing (*Brumhana*), aphrodisiac (*Vrushya*), energetic (*Balya*), tasty (*Ruchikara*), Constipative (*Grahi*), Light (*Laghu*), decrease *vata*,*pitta* and *kapha* (*Dosatrayapaha*).

Madhushirshika (Susrutha samhitha, sutrasthana 46/393)

Wheat dough made into thin disc, lump of sugar, ghee are kept inside, enveloped all around and cooked in steam.

Benefits: Nourishing (*Brumhana*), Heavy (*guru*)

Vataka

Black gram flour, salt, ginger, asafoetida made into vataka and fried slowly in oil.

Benefits: Energetic (*Balya*), nourishing (*Brihmana*), tasty (*Ruchya*), passify *vatha* related diseases (*Vatamayahara*), relieve constipation (*Vibanadahara*), *Ardhitavatahara*,digestive (*Agni deepana*)

Nimbu Phala Panaka

Method: To one part of lemon juice, six parts of sugar syrup are mixed together and required amount of cloves and black pepper are added to it.

Benefits: Sour in taste (*Amlarasa*), passify vatha (*Vatanasaka*), digestive (*Vahnideeptikara*), tasty (*Ruchyam*)

Amlika Panakam

Method: Ripe tamarind is pressed and its juice is extracted. Sugar, black pepper, cloves and camphor are added to it.

Benefits: passify vatha (*Vatanashaka*), increase pitta and kapha (*Pittaslesmakaram*), Tasty (*Ruchya*).

Amra Panakam

Method: Unripe mango is boiled in water and pasted with hand and mixed with sugar, water, camphor and black pepper.

Benefits: Tasty (*Ruchikara*), nourishing (*Balya*), Nourishment to sense organs (*Shighramindriyatarpanam*)

Thakram

Method: Sour and concentrated curd is added one fourth of its quantity of water. Churned well and filtered. Fried asafoetida, cumin seeds, salt and small quantity of mustard seeds all are grounded and added to it.

Benefits: Tasty (*Ruchikaram*), digestive (*Vahnideepanam*), satisfying (*Truptikarakam*).

Sakthu Pinda

Method: ginger and *jeeraka* (cumin seeds) fried in ghee and powdered, mixed with powdered laja (Parched rice) and melted jiggery

Benefits: sweet (*madhura*), digestive (*deepana*), energetic (*balya*), given for 1-2 months for weight gain in children.

Apupa/Ada

Method: hot water is mixed with powdered *shashtika* (variety of rice) and *musali khanda* (rhizome of golden eye grass) and *ada* is prepared.

Benefits: energetic (*balya*), aphrodisiac (*vrishya*), nourishing (*brumhana*), given for one month for management of leucorrhoea.

Muktha Modaka (Bhava prakasha)

Method: Fine flour of Green gram should be mixed with water. Mixture to be poured slowly through the sieve, which is placed over deep pan filled with ghee. So drops like pearls fall into the ghee. After it is fried well, taken out and added into sugar syrup and made into balls.

Benefits : light (*Laghu*), constipative (*Grahi*), passify tridoshas (*Tridoshaghna*), Sweet in taste (*Svadhu*), cold in potency (*Seeta*), tasty (*Ruchiprada*), good for eyes (*Chakshushya*), passify fever (*jwarahrit*), energetic (*Balya*).

Shashkuli

Method: Flour of rice made as dough, then pressed through a small hole to come out like cylindrical / thread – like and arranged in circular discs. These are deep fried in oil and consumed.

Benefits: Causes dryness, Mitigates *kapha*, *pitta* and *rakta*, heavy (*Guru*)

Conclusion:-

The dietary habits of present era are highly causative of various life style disorders and related complications in the body. Modernization and Industrialization are broadly associated with an increase in the risk of health problems. Consumption of the junk food invites various health problems. The habit of the consumption of junk food is continuously increasing in young generation especially in children. The main problems with junk food are increasing childhood obesity, which further leads many health complications in children. Parents should take care of the eating habit of their children and protect them from junk food by increasing the awareness about the health problems associated with junk and fast food. The habit of junk food can be avoided by strong will power and awareness of the side effects associated with them and also by replacing junk food with healthy alternatives.

References:-

1. Piyush gupta, Dheeraj shah et al, Indian Academy of Pediatrics Guidelines on the Fast and Junk Foods, Sugar Sweetened Beverages, and Energy Drinks , Article in Indian paediatricians 56 (9) : 849 – 863. October 2019

2. Definition of fast food. available from: <https://www.merriamwebster.com/dictionary/fastfood>. Accessed December 7, 2019
3. www.indiaenvironmentportal.org.in/.../Junk%20Food%20Guidelines%20%20January
4. Working Group Members on Matters related to Junk foods and Addressing Problem of Obesity in India in 2015. Report of Working Group on Addressing Consumption of Foods High in Fat, Salt and Sugar (HFSS) and Promotion of Healthy Snacks in Schools of India. Available from: <http://nipccd.nic.in/reports/hfss.pdf>. Accessed March 01, 2020
5. Bhaskar Rajveer, Junk food impact on health, Journal of drug delivery and therapeutics, 2012.
6. Andrew E Smith, Encyclopedia of junk food and fast food, green wood press, first edition, 2006, page no.1-98
7. Smith AF. Junk food and fast food. Oxford: Greenwood Press; 2006. P. 212,231.
8. Prof. K. R. Srikanta Murthy, Editor, Illustrated Susrutha Samhitha (English translation) Vol I Suthrasthana Reprint 2008, Chowkhamba Orientalia Varanasi, Su.Su 46/393 page no.312
9. Prof. K. R. Srikanta Murthy, Editor, Illustrated Susrutha Samhitha (English translation) Vol I Suthrasthana Reprint 2008, Chowkhamba Orientalia Varanasi, Su.Su 46/394 page no.312
10. Prof. K. R. Srikanta Murthy, Editor, Illustrated Susrutha Samhitha (English translation) Vol I Suthrasthana Reprint 2008, Chowkhamba Orientalia Varanasi, Su.Su 46/351 page no.306
11. Prof. K. R. Srikanta Murthy, Editor, Bhava Prakasha by Bhavamisra(English translation) Vol I Purva khanda ,Reprint 2008, Chowkhamba Orientalia Varanasi, BP.Pu 7/32, page no.42
12. Prof. K. R. Srikanta Murthy, Editor, Bhava Prakasha by Bhavamisra(English translation) Vol I Purva khanda ,Reprint 2008, Chowkhamba Orientalia Varanasi, BP.Pu 7/39, page no.44
13. Prof. K. R. Srikanta Murthy, Editor, Bhava Prakasha by Bhavamisra(English translation) Vol I Purva khanda ,Reprint 2008, Chowkhamba Orientalia Varanasi, BP.Pu 7/41, page no.44
14. Prof. K. R. Srikanta Murthy, Editor, Bhava Prakasha by Bhavamisra(English translation) Vol I Purva khanda ,Reprint 2008, Chowkhamba Orientalia Varanasi, BP.Pu 7/49, page no.46
15. Dr. K G Sreelekha, Suranadu Kunjan Pillai, Editor, Bhojanakuthuhala of Raghunatha (Sanskrit), 2013 Edition, University of Kerala, page no 360 -370.