

# Does Education Lead the way to Maintain Good Health through Diet?

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## Review Article

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## ABSTRACT

The common belief is that an educated individual knows what to eat and what not to eat? Yes, one knows, too much salt is bad, too much oil or fried food is bad, too much carbohydrate or sugar intake is bad. In a similar manner, one knows, fruits are good, vegetables are also good for health. The information listed above is good enough to lead a healthy life? The answer is No.

## INTRODUCTION

It is doubtful whether one knows the reason why fruits and vegetables consumption is good. How fruits and vegetables should be consumed. The phytochemicals ie., antioxidants available are an absolute necessity for good health. One may not know that  $\beta$ -carotene is a good antioxidant for eye ailments and other health problems. It is available in plenty in carrots. It is also available in other fruits and vegetables also. Similarly, lycopene antioxidant is good for bone health and available in plenty in water melon and other items. Women may be unaware of the importance of the antioxidant sulpharaphane in broccoli and other members of the same plant family i.e. brussels sprouts and cabbage having anticancer effects to halt breast cancer. It has been an amazing experience in early stages of breast cancer, consumption of broccoli/brussels sprouts steamed with salt and pepper in breakfast, lunch and dinner or consume as a snack, leads to disappearance of cysts, never to reappear. Carrots can be consumed steamed, or as juice, or in salad; water melon be consumed as fruit, mixed with salad or as juice to get

lycopene in large quantity. During metabolism, body produces free radicals and these are disease causing agents. Antioxidants are scavengers to eliminate free radicals. This is how one prevents dreadful diseases and maintain good health through fruits and vegetables [1-3].

The educated adults may or may not know that antioxidant tablets commercially available in capsules/tablets from Pharmacies are ineffective. The naturally available antioxidants are the best for recovery from ailments. Do not spend on procuring non-beneficial tablets, particularly this applies to antioxidants.

It has become fashionable to have tea with herbs as herbs have excellent antioxidants. Some of the brands of the tea are sold with herbs mixed. It may be Assam tea/Darjeeling tea, herbs are added in the tea packet. It is a value addition. But do one knows that black tea is bad, but if consumed with calcium rich milk, it is fine. Similarly, green tea, only 2 tea leaves to be added to hot water and not more than that. Green tea the tender leaves, are rich in antioxidants. Tea leaves are known to accumulate the environmental toxin, fluoride. The older the tea leaf, higher the fluoride content but calcium rich milk addition nullifies the toxic effect. Fluorine toxin causes dreadful diseases. Avoid by all means [4].

Nutritive value of the food when improved, immunity is improved to combat diseases. In the COVID-19 pandemic era, special attention is paid to enhance immunity. It is like fighting or fine tuning the body to meet the challenges.

The background information, provided the strength of nutritious food and the manner in which it should be consumed. But, the ground realities are different. Lots of vegetables are consumed in the form of "kofta" in a gravy. Spinach cooked, mashed with spices or added paneer to it; vegetables two or three mixed, cooked with onion in oil with a variety of spices to go with roti or rice. These are very tasty dishes but nutritive value is almost nil due to harsh cooking procedures adopted.

An educated adult should learn to shift the gears with ease to lead a healthy life through diet. This scenario detailed would provide ample confidence to set matters right, mere education or having fancy degrees do not lead to awareness on the importance of diet.

## PREVAILING SCENARIO

An educated well qualified individual with a lucrative job in his mid 20s moved out of parental care to a metropolitan city to promote his career; rented out an apartment and start living. What was happening in food front? The ground realities are as follows: Breakfast may be a cup of tea/coffee with a few biscuits or toast. The individual should know a day should start with a nutritive breakfast whether he/she is dieting or weight losing regime. It does not take much time to prepare a good breakfast. Organizing oneself is required. Every item should be available in the kitchen or in the refrigerator. A few items of equipment in the kitchen viz., a juicer, a steamer, an oven, a blender and a pressure cooker are necessary. These are one-time investment for healthy living.

The breakfast should commence with a glass of fruit juice; it can be from a single fruit or mixed fruit juice. This is absolutely necessary and must avoid carton juices, which is with chemical preservative. In India, juices are packed and sold in paper cartons not in glass bottles. The colour of the juice is not visible. On the shelf juice loses its nutritive value and changes colour when it is decomposed, invisible to the consumer. At times upon expiry of the date of the juice, two cartons are sold for the price of one as the juice is not fit for consumption. These are sold swiftly as the consumer likes to have juice on the table during the breakfast. The fact of the matter is the commercials lack consciousness and the consumer though educated is unaware of the facts.

The lunch unfortunately is on the move. Whatever is available and wherever is available. There is no strict timings for lunch; lunch at any time may be 3 pm or 4 pm. These are extremely unhealthy trends of life. Lunch time should be 4 hours after breakfast; 12.30 am to 2 pm is considered as the lunch time. The lunch should be prepared at home and packed for office. It can be a rich salad with home made salad dressing. It can be pasta cooked with lots of veggies in tomato sauce. It can be a one pot meal also. Dalia kichdi with lot of vegetables mixed consumed with a cup of home made yogurt. Avoid collecting yogurt with gelatin from supermarket shelf.

The dinner eat out with friends and come home late is fashionable. Sleep late. A couple of years enjoyed life with the unhealthy life style. Everything was outwardly right, But the body start sending signals viz. Extremely tired, exhausted, not feeling hungry and sleepless nights. It was the decision to get a medical check up done. The truth get revealed with supporting data. One is sick, Unwell need medical attention for a variety of health problems, the worst one can expect. That can shake-up an individual. Dinner should be with a mixed vegetable soup without butter, cream or maida. Vegetables, such as carrot, beat root with the leaves, spring onion, celery, etc. Are cut and pressure cooked. Cool it, blend in a blender, dilute with water to the required consistency for a soup, simmer add salt, pepper and two spoons of milk. Soup is ready to serve. Have a proper dinner, with steamed veggies, protein rich food chicken, with mushroom grilled as a sidedish. It is followed by a caramel custard pudding or any such light sweet dish [5,6].

Three important parameters are the guidelines for good health

- **Hemoglobin:** >12.5–15.0 gm/dL for a lady. A man should have >13.0–17.0 gm/dL. Test Hb once in 6 months.
- **Body Mass Index (BMI):** Normal BMI 18.5–24.5. But 25.0–29.9 acceptable in pregnancy. Above >30.0 is obesity.
- **Waist circumference:** Male 90 cm; female 80 cm.

How can the 3 guidelines be achieved: The only means is Diet [4]. Breakfast should be protein rich or carbohydrate rich. It is the experience, individuals from the highest echelons of the society do not understand what protein is/carbohydrate rich breakfast, though they are educated with fancy degrees. Therefore, a few items of protein and carbohydrate rich breakfast items listed.

- Cornflakes with milk (hot or cold) can be consumed for breakfast only once or twice a week (not every day, as it has hidden toxin, acrylamide, which is cancer causing).
- Oats cooked in milk (milk porridge) could be once or twice a week.
- Poached egg and toast with steamed broccoli/sautéed mushroom as the side dish could be for a day or two/week.
- Dalia kichdi with carrot, broccoli and peas with homemade curd. These are protein rich breakfast dishes.

Listed Below are carbohydrate rich breakfast

- Poha with potato and peanuts.
- Upma with veggies carrot and peas.
- Potato and Vermicelli containing dishes.
- Rice flour based dishes.

An individual should have a power packed diet, enriched with nutrients. Macronutrients are proteins, carbohydrates and fats in required quantity. Essential nutrients include vitamins, calcium, iron & folic acid and anti-oxidants. Micronutrients include zinc, selenium, chromium and Iodine. Antioxidants act to prevent free radicle formation so that diseases do not occur larger the number of fruits and vegetables consumed each day, it is better for good health [7,8].

The information following provides guidelines to an individual to safeguard oneself. Every morning one should have proper bowel movement. Do not opt for medication as it is not required. The stomach and intestine is the best system to monitor as it literally communicates with the individual. The food consumed should have ample fiber from fruits, vegetables and cereals. The food having hidden toxins is avoided as it would interfere with mucus production. Some of the preservatives added are toxins preventing mucus production leading to non-functioning of the GI system resulting in constipation. When high protein fish, meat or chicken consumed, it is a must to have salads as a side dish to prevent constipation. Post dinner and before going to bed have a glass of milk or banana or papaya or apple to ensure next day morning the visit to the toilet is enjoyable and should not take time. No need to visit the toilet with cigarette, newspaper or a novel. Most people have a clock in the toilet. If the gastrointestinal system is functioning well nothing to worry, it is a green signal in a traffic light.

Beware of hidden toxins (poison) in fortified or enriched food. Nitrates and Nitrites are added in dried fish as a preservative provides a pink color as it is converted to nitrosamine, which cancer is causing. Artificial sweeteners are deadly-avoid it. Artificial colors added to food, do not consume. French fries, potato chips, breakfast cereal cornflakes heated at 250°F, acrylamide formed is a cancer causing agent. Corn syrup with high fructose sugar, is added to ice cream and other sweets, leading to obesity (BMI>30) and diabetes. Potassium bromide or Iodate is added to flour to make bread (brown and white) and baked products besides, pizza bread soft and fluffy, are cancer causing. Nothing like homemade chapattis with wheat flour in different forms is the best option. Consuming healthy food is under one's own control. Tannin in tea prevents absorption of Iron, a raw material required for Hemoglobin biosynthesis. Therefore, do not consume tea before or soon after a meal, allow iron to be absorbed. Aerated soft drinks are contaminated with pesticides. Avoid it.

#### Life style changes

- Homemade food for breakfast, lunch and dinner, should be the norm.
- Food prepared at home should not have hidden toxins.
- Physical fitness, diet regime and hygiene practices on a daily basis leads to a healthy life.
- Rushing to Gym or going to a park early morning for a walk is opted as the way forward.
- Life style changes are not followed or practiced. That is where the fault lies.
- It is important to realize that by not doing so, one is inviting diseases, which surfaces sooner or later.
- Instead of a Doctor pronounces a disease that has set in, why not take adequate practice of consuming a nutrient rich diet so that such a day to pronounce a disease does not arise.
- Eat on time, eat less, and eat right.
- Avoid picking up food from wayside vendors, has become the norm due to pressure of work.
- Avoid consuming food/left overs stored in refrigerators for a number of days after warming up.
- Freshly cooked food is the best option.

## DISCUSSION AND CONCLUSIONS

A couple of incidences with striking messages conveyed

1. An incident reported in Times of India on 19<sup>th</sup> July, 2012 after the death of the Superstar Rajesh Khanna is cited about two months before the death of the Superstar; he was met by Sharmila Tagore in a public function in Jaipur. She was a bit taken aback, as the Superstar looked seriously unwell. When she enquired about his health he said, "My Hemoglobin (Hb) is very low". What led to low Hemoglobin and what are the disease(s) that he was suffering from, there was no mention. "Hemoglobin is low", possibly pronounced of his Physician and that was bothering him. Low Hb is not a good sign. He died of cancer and other diseases. Diet is the only entity to maintain good Hb levels. Try and maintain Hb in the desired range so that there should be no regrets.
2. A second incidence, sometime ago, when Imran Khan, the present Prime Minister and then Pakistan Cricket Captain visited India and one of the TV Channels interviewed him. The interviewer asked what the secret of his good health was as healthy living was reflected on his face. He had a very brief answer "possibly the diet". The diet plays the major role in developing one's personality and confidence in life.
3. A third incidence cited in Delhi Times, Times of India, 8<sup>th</sup> January, 2015, a picture of a famous Bollywood Superstar was shown on the front page. The messages conveyed No drinking, No smoking, No aerated drinks, No coffee, No chai, No non-vegetarian, No rice, No Indian sweets, No chocolates, No pastries". Then it says "Don't collapse in disbelief. Big B does not have any of these". This is cited, to remind to enjoy good health, one has to make sacrifices and compromises. Good health has a heavy price to pay.

The three incidences cited which took place in India during the last decade is a reminder to take good care of health through diet. The time and effort spent, shall provide ample dividends and that should be the aim of living. Education has benefits for a better grasp of the issues.

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