



Why is nutrition such a popular topic these days?

Contemporary medication has put far too little stress on nutritional treatments mainly, because of the failure of many professionals to grasp certain basic concepts about nutrition. According to researchers, nutrition means all the processes involved in the taking in and utilisation of food substances by which growth, repair, and maintenance of activities in the body as a whole or in any of its parts are accomplished, includes ingestion, digestion, absorption, and metabolism.

Essential nutrients are those substances (proteins or amino acids, carbohydrates, fats or essential fatty acids, vitamins and minerals) necessary for growth, normal functioning, and maintaining life; they must be supplied by foods because the body cannot produce them. This definition can be extended to include other components that are necessary for human life. These could include oxygen and water. Some nutrients are capable of being stored by the body in various forms and drawn upon when the food intake is not sufficient. An example of a nutrient that is not stored is vitamin C.

At the present time, nutrition is a key issue for good reason. This topic has also got a significant place in our new health strategy. Within the last decade, researchers have

been conducting impressive new nutrition studies. This studies go miles beyond our previous understanding of the role that nutrition plays in health. Scientists have been exploring many different aspects of nutrition. The benefits and hazards of different kinds of fats, such as saturated fats, fish oils and hydrogenated fats, the role of different types of fibres in reducing cholesterol and cutting the risks of colon and breast cancer; and the reasons behind the fact that people who eat large quantities of fruits and vegetables seem to have reduced risk of many diseases.

Factors influencing nutritional status

- The quantity of the food we eat
- Biochemical individuality
- The efficiency of digestion, absorption and utilisation

Did you know?

Vitamin C is the body's most powerful water-soluble antioxidant. It shields cells in the body from oxidative damage. Although some people strongly believe about the role of vitamin C on colds, an analysis of a dozen studies of vitamin C's effect on cold is not quiet clear, but the effect is almost certainly an antioxidant one.

Baby girls and women suffer more from anaemia

PARVEZ BABUL

Rina is a ten-year-old beautiful girl from Baniajuri, Manikganj. Her day laborer father arranged her marriage earlier. Rina became pregnant after six months of her marriage and according to the suggestion of her mother-in-law, she ate less and low quantity of food to avoid delivery complications. Rina was bound to follow those wrong ideas and superstitions, which were imposed upon her. As a result she had been suffering from anaemia and other micronutrient deficiencies and gave birth of a girl child with low birth weight. Her husband and in-laws were unhappy for giving birth of a girl child as they expected a son. So, Rina and her child did not get necessary care, attention and optimum diet.

Due to those causes both Rina and her daughter Beauty suffered from anaemia along with other micronutrient deficiencies. Rina also faced problem to breastfeed her daughter. Beauty became stunted also. Rina's husband married another girl again. The lean and feeble body of both Rina and Beauty represent the fact that anemic women give birth of anemic children. And they have to carry the burden of preventable malnutrition and associated diseases from generations to generations.

Helen Keller International (HKI) in collaboration with Institute of Public Health Nutrition (IPHN) conducted a national anemia study in 2004 in rural Bangladesh through collecting data by the Nutritional Surveillance Project (NSP). The survey disclosed the findings in the Bulletin titled, 'The Burden of Anemia in Rural Bangladesh - Need for Urgent Action'. It mentioned with emphasis that the prevalence of anemia is higher among girls than boys. In rural Bangladesh, 68 percent children of 6-59 months of age suffer from anemia. Prevalence of anemia among 6-11 months as well as 12 months of age children is 92 percent and 85 percent. Approximately 40 and 31 percent of adolescent girls and boys, and 46 and 39 percent of non-pregnant and pregnant women suffer from anemia.

The findings stressed that anemia is a severe public health problem in Bangladesh. The prevalence increased in comparison to a similar survey conducted in 2001. World Health Organisation (WHO) has categorised anemia as one of the top ten most serious health problems.

Anemia contributes to low birth weight, impairs growth and brain development, reduces concentration and work productivity, helps behavioral and cognitive impairment and decreases



resistance to infections. Anemia also impairs the ante- and postnatal growth and development, especially of the brain. That is why controlling anemia must be given priority to achieve universal primary education, to prevent low birth weight and micronutrient deficiencies. Due to anemia, the loss of attribute economic productivity is estimated as 7.9 percent of GDP in our country.

Anemia is a bar to reduce child and maternal mortality. As a part of micronutrient deficiencies - anemia is contributing to go back rather than reaching the goals of Millennium Development (MDGs), Poverty Reduction Strategy Paper (PRSP).

Anemia is one of the micronutrient deficiencies, which affect mostly women and children and the consequences affect development, learning, working capacity and quality of life. So, we must take necessary initiatives to avoid it and that is why the government, donor agencies, NGOs, proactive individuals and citizens should come forward.

Besides poverty alleviation, awareness building/nutrition education - in the medium of

long-term food fortification, homestead food production, plant breeding and dietary modification should be supported to increase the intake of iron and other micronutrients. A successful strategy is necessary to expedite controlling anemia among all vulnerable population groups and to reach the goals agreed upon at national and international level. It could be incorporated in the National Anemia Strategy for Bangladesh or any accompanying action-oriented document.

The high prevalence of anemia among pregnant women and lactating mothers is predominantly due to depletion of iron stores during pregnancy and lactation. These highlight the need for improved supplementation to ensure adequate iron stores. Placing sufficient birth spacing pills also reduce anemia prevalence. On the other hand, low consumption of complimentary foods with micronutrients and recurrent infections, may soon lead to nutritional deficiencies including iron deficiency anemia.

Though the breast milk is sufficient for the children to provide iron during the first six months, but the lactating mothers should have sufficient iron stores. In fact, breast milk alone does not meet children's nutritional requirements after certain period. That is why after six months of age of the children, complimentary foods of good quality are to be ensured.

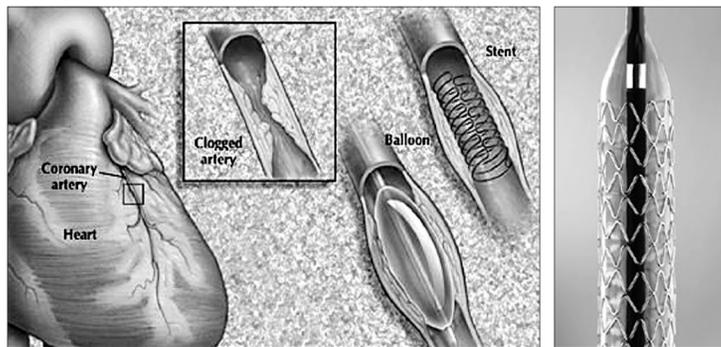
Unicef recently launched the 'Progress for Children' report and indicated that 146 million children under five years of age are underweight in developing countries. Undernutrition contributes to the deaths of around 5.6 million children each year, i.e. equivalent of 10 children a minute. Only around one third of infants are exclusively breastfed for six months or longer. Also poor educational and social status of girls and women compound these problems of malnutrition.

The report also highlighted that the root problem of malnutrition is not only the shortage of food. Micronutrient deficiencies, poor sanitation, infectious diseases, lack of exclusive breastfeeding, marginalisation of girls and women are the key factors. So, we need to strengthen our commitment sincerely and prioritise the efforts urgently to meet the targets for reaching the goals of food for all, health for all, education for all, Millennium Development, PRSP within the timeframe.

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EVOLUTION OF DRUG COATED CORONARY STENTS

A major breakthrough in managing CAD



DRAHM WALIUL ISLAM

Coronary artery stenosis (condition where an artery of heart becomes narrow) is a common cardiac problem leading to heart attack or myocardial infarction (MI). Management of acute MI are thrombolysis (dissolving the blood clot) by drug like Streptokinase or by primary percutaneous coronary intervention (PCI) that is opening of blocked coronary artery by ballooning and putting a stent inside.

The success rate of opening of blocked coronary artery of MI patient by primary PCI was superior than thrombolysis by drugs. Instead of coronary artery bypass surgery (CABG), balloon angioplasty or PCI has become a popular and successful treatment modalities. To keep the artery patent after angioplasty, physicians are increasingly using mesh like metal devices called "stent". These devices help in keeping the artery open and reducing further coronary narrowing.

Among the stents, non-drug coated stent or bare metal stent has been using for long time. Considering the acute stent thrombosis, reocclusion and in-stent restenosis (scar tissue formation within the stent), scientist has been able to develop newer version of stents, coated with drugs.

Patients can avoid CABG by ballooning and stent implantation. Since, the cost of drug coated stent is high, when patients need two or more stents,

CABG is preferred in the context of our socio-economic condition. Drug coated stents inhibit scar tissue formation, and significantly reduce restenosis and hence enabled patients to avoid bypass surgeries.

Advancement in the battle against restenosis

Drug coated stents represent a paradigm shift in the therapy of coronary artery stenosis.

Drug coated stents basically inhibit scar formation after angioplasty. Sometimes referred to as a "coated" or "medicated" stent, a drug-eluting stent is a normal metal stent that has been coated with a pharmacologic agent (drug) to interfere with the process of restenosis (reblocking). Restenosis is a very complex process and its prevention is equally complex. Drug-eluting stents successfully reduce restenosis by 20-30 percent.

There are several decisions made by the interventional cardiologist that result in a successful placement -

- Correct sizing of the stent length to match the length of the lesion, or blocked area,
- Correct sizing of the stent diameter to match the thickness of the healthy part of the artery,
- Sufficient deployment of the stent, making sure that the stent, once placed at the optimum site in the blocked artery, is expanded fully to the arterial wall, under-expansion can result in small gaps between the stent and arterial wall which can lead

to serious problems such as blood clots, or sub-acute thrombosis (SAT). Usually the sizing and the assessments of expansion are made by viewing the real-time angiogram in the cath lab.

Finally, in addition to aspirin, the patient may need an anti-clotting injection, receptor blocker for up to six months after the stenting to prevent the blood from reacting to the new device by thickening and clogging up the newly expanded artery (thrombosis). Ideally a smooth, thin layer of endothelial cells (the inner lining of the blood vessel) grows over the stent during this period and the device is incorporated with the artery, reducing the tendency for clotting.

Among the stents Boston Scientific TAXUS-Paclitaxel Stent and Cypher-Sirolimus stent are already been approved by FDA and used globally both drugs working in different approach and reduced in cell growth, migration and multiplication and thereby reduce the re-stenosis rate and keeping stent patent and maintaining streaming of blood through coronary artery.

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Care of tooth in diabetes

DR KA HASNAT FARZAN

As many of the complicated disease - diabetes is also a complicated one. But appropriate treatment, balanced diet and routine daily life can control the hazards of diabetes within limit. As we know that diabetes is not a curable disease but the person who is really careful about his/her daily life, s/he can keep diabetes under control.

In case of oral cavity and teeth, the adverse effect of diabetes is

resolved rapidly and the periodontal ligament become weaker. As a result, the space between the teeth increases and the gingival margin loosen and shift towards the top of teeth (apically). Subsequently a large periodontal pocket forms between the space. After heavy meal, food debris are impacted in the pocket and increases its volume.

Consequently, severe gingivitis (inflammation of the gums as a result of bacterial infection) and periodontitis (infection of the

In diabetic patient the colour of tooth may change to blackish or brownish. Via one of the small caries, bacteria are transmitted through the blood vessels and form various apical infection. Among them cyst (abnormal growth in the body shaped like a pouch, containing liquid or semi-liquid substances) is most common and dangerous.

People should give up the habit of brittle nut, jorda, khoir, smoking etc. Use of coal or any abrasive materials for tooth for cleaning purpose should be avoided. Excess hot and spicy food should be avoided also. To clean the space between the teeth, dental floss is a must. Never use bamboo or any type of metal toothpick.

After breakfast and before sleep, tooth brushing is very necessary. Brushing procedure should be according to the advice of dentist. Everybody should use a quality toothpaste and appropriate tooth brush depending upon the variety of tooth structure.

Everybody should have a routine visit to a dentist to check his/her teeth at least twice a year.

In case of diabetes, diseases depend on blood sugar level in a great extent. To control your diabetes is mandatory to have a healthy mouth in addition with other measures, if you are a diabetic. The most significant thing is - discipline, diet and drug together can give a diabetic patient a controlled and happy life.

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not less than other part of the body. Lots of complicated situation can be happened inside and out side of the mouth whose diabetes is not under control because oral disease spread rapidly than other part of the body.

The alveolar bone and periodontal ligaments kept the tooth in socket. If diabetes is uncontrolled, the alveolar bone

periodontal membrane leading to pyorrhoea, and resulting in the teeth falling out if untreated) can developed. Foul odor spread from mouth during speaking. Due to lack of attention, the teeth fall automatically or they require to be extracted.

In all conditions stated above, severe intolerable pain and tenderswelling occur.

Coffee may cut alcohol liver damage

Researchers reported that drinking coffee cuts the risk of cirrhosis of the liver from alcohol - by 22 percent per cup each day - but they stopped short of saying doctors should prescribe coffee for that reason.

The report from the Kaiser Permanente Medical Care Programme in Oakland, California, was based on a look at data from 125,580 people.

These data support the hypothesis that there is an ingredient in coffee that protects against cirrhosis, especially alcoholic cirrhosis. What could cause the apparent protective effect is not clear, the report said.

Coffee is a complex substance with many potentially biologically active ingredients. The fact that coffee is also frequently taken with

added cream, milk, sugar or other substances adds more possibilities for health effects.

Other studies with similar findings have led to speculation that caffeine could play a role. However, the protective effect was not found among tea drinkers, though the authors said they were not nearly as numerous in the study as coffee users.

The report did not suggest alcohol users increase their coffee consumption or seek out drinks like Irish coffee that combine booze with coffee.

Even if coffee is protective, the primary approach to reduction of alcoholic cirrhosis is avoidance or cessation of heavy alcohol drinking.

Source: Archives of Internal Medicine



Your Doctor



Prof Dr M Khademul Islam
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Dear doctor,

I am 30-year-old women. I have markable swelling in my thyroid gland. I have consulted with physician and he suggested me for laboratory tests. After having all investigations he advised me to go for thyroidectomy. But I am afraid of surgery. What will happen to my body when thyroid will be removed? Can I lead a normal life without my thyroid? Please suggest a solution.

Regards,

Fahmida Akter, Dhaka

Answer:

The extent of thyroid surgery varies according to the thyroid pathology. You did not mention the extent of surgery whether it is partial or complete removal.

If only part of your thyroid is removed, the remaining part of the thyroid typically takes over functions of the entire thyroid gland. As a result, no thyroid hormone therapy is needed.

If your whole thyroid is removed, your body cannot make thyroid hormone result-

Send your health related queries to Your Doctor, Star Health, The Daily Star, 19, Karwan Bazar, Dhaka 1215 or e-mail your problem to starhealth@thedailystar.net