

NUTRITION

food for thought

Good health does not always come easily. Health is an interaction between environmental, behavioural, social, and genetic factors. Some of these, for example genetic influences, are beyond our control. Yet, there are many ways, we can ensure good health through the choices we make in our daily living. One such thing is paying attention to what we eat. Food not only sustains us, but is a source of pleasure, a reflection of our rich social values and cultural heritage.

Sri Lanka is undergoing a period of changing pattern of nutrition. This burdens us with two problems. Malnutrition can either be under nutrition or over nutrition. Under nutrition remains a problem in several parts of the world, particularly in Africa, but in Sri Lanka as well. A recent problem we are facing is over eating. Too many calories are consumed over and above the required amount for our activity levels. Along with this, an imbalance in the consumption of nutrients occurs..

Under Nutrition

Under nutrition is known as Protein-energy malnutrition (PEM). Children are the usual victims. Physical and intellectual performances are impaired in under nourished children. Nutrition surveys in Sri Lanka in the past four decades indicate a considerable decline of under nutrition. The proportion of underweight children below five years of age reduced from 57.3% in 1975 to 29% in 2000 (Figure 1). Even moderate under nutrition can have lasting effects on children's brain development and school performance. Chronically undernourished (stunted) children are poor achievers, especially in language abilities.. Skipping breakfast is one of the common



causes for the under nutrition among school children. This can impair child's performance in problem-solving tasks as well.

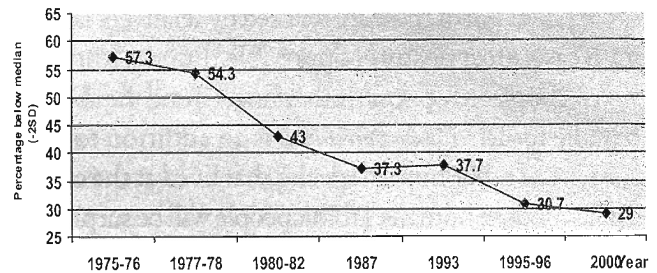


Figure - 1
Decline in prevalence of under nutrition among Sri Lankan children

Over weightness (obesity) a global problem

At the opposite end of the scale of nutritional problems is the over weightness. Obesity is increasing in epidemic proportions world wide, yet remains a neglected public health problem. Paradoxically, both under nutrition and over nutrition can exist at the same time. Sri Lanka is no exception to this situation. The proportion of overweight adolescence (10-19 years) and adult females over 18 years are shown in the Figure 2. In the

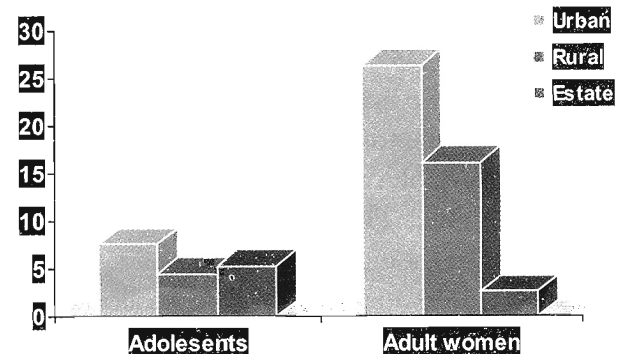
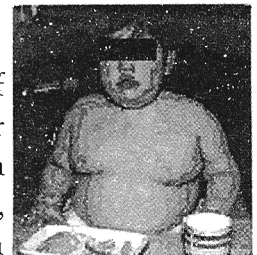


Figure - 2
Obesity among 10-18 year age group and among over 18 females in estate, rural and urban areas

urban areas about 8% of adolescents and 25% of adult females are obese. There are more obese children and women in urban areas when compared to estate and rural areas. The reason for obesity is too much of energy intake and too little burning of calories because of lack of exercise. If immediate action is not taken, millions will suffer from a variety of serious illnesses caused by obesity.

Health problems associated with overweightness

It is well known that diabetes, high blood pressure, high blood cholesterol levels, coronary heart diseases, certain type of cancers and strokes are linked to obesity. World wide increase in the numbers of diabetes, high blood

and those with low income levels. Iodine, vitamin A and iron are some of the most important micronutrients. The commonest micronutrient deficiency in Sri Lanka is iron deficiency. Iron deficiency hampers the body's ability to produce haemoglobin, which is needed to carry oxygen in the blood. Iron deficiency leads to anaemia. Anaemic people fatigue easily, have a shorter attention span, reduced work capacity, lowered resistance to infection and even impaired intellectual performance. Deficiency of iodine, another micronutrient, causes goitre and deficiency in thyroxine hormone. Vitamin A deficiency is a leading cause of blindness in the world.

Good health does not always come easily. there are many ways. We can ensure good health through the choices we make in our daily living. One such thing is paying attention to what we eat.

Healthy eating guidelines

1. Eat a variety of foods everyday
2. Balance the food you eat with physical activity – maintain or improve your weight
3. Choose a diet with plenty of grain products, vegetables and fruits
4. Choose a diet low in fat
5. Choose a diet less in sugars
6. Choose a diet moderate in salt and sodium.

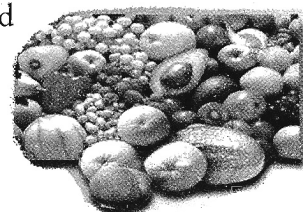
pressure and coronary heart disease seen today has also been linked to increasing trends in obesity. In contrast, there is a reduction in numbers of vitamin deficiencies.

Micro nutrient deficiencies

Micronutrients are substances we need in very small or micro quantities. These substances are the 'magic wands' that are essential to produce enzymes, hormones, to drive body metabolism and to support growth and development. Even though the requirement is small, consequences of deficiency could be severe. Deficiency of micronutrients is a public health problem even in Sri Lanka, mostly affecting the children, pregnant mothers

Antioxidants

Antioxidants are chemical compounds that protect the tissue from oxygen free radicals released in chemical reactions. Four nutrients are identified as antioxidants. These are beta carotene (a precursor Vitamin A), Vitamin C, Vitamin E and selenium. Antioxidants help to prevent cancer, thickening of blood vessels (arteriosclerosis), cataract and aging. Increasing your daily intake of fruits and vegetables to a minimum of 5 servings a day helps to keep up your antioxidants state (young for ever !!)



Unsafe weight-loss methods

With the increasing problem of obesity, it has now become a fashion among young people to practice unsafe weight-loss methods to lose weight fast. Deliberately restricting food intake drastically over a long period can lead to poor growth and delayed sexual development. One of the dangers of unsafe weight-loss methods is developing *eating disorders*. Children and adolescents (and their parents too) should pay attention to maintaining a healthy weight by practicing healthy eating ways.

Eating disorders

There are two main eating disorders, i.e. *anorexia nervosa* and *bulimia*. Anorexia nervosa is a psychogological disorder, mainly in young women, who believe they are fat, have a fear of becoming obese and have severe weight loss because of refusal to eat. In bulimia, episodic binge eating is followed by feelings of guilt, depression, and self-condemnation. It is often associated with measures taken to prevent weight gain, such as self-induced vomiting, use of laxatives, dieting, or fasting. Adolescents who have eating disorders tend to have lower self-esteem, feelings of inadequacy, anxiety, depression and moodiness.



Distorted body image

In summary, it is important to launch an urgent effort to address the double burden of diseases (namely under nourishment and obesity) in Sri Lanka. A healthy diet should be recommended with defined limits of caloric and fat intakes. It is even more important for children to follow healthy eating guidelines to prevent obesity and related health risks in adult life. An effort should be diverted to increase physical activity from early childhood.

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EINSTEIN & THE YEAR 2005

The year 2005 is a year of celebration for the scientists. In 1905, Albert Einstein, the great physicist, published a series of scientific papers that changed the history of mankind. To mark the 100th anniversary of this 'miraculous year', the United Nations designated 2005, The International Year of Physics.

Albert Einstein was born in 1879 in Wurttemberg, Germany. In 1905 he obtained his doctorate (PhD). During the same year, at the age of 26, he published his most famous work that laid the foundation for three areas of modern physics, the theory of relativity, quantum theory and the theory of Brownian motion. His theories helped to understand the heat source of sun and stars and led to the development of nuclear power and 'creation' of matter and anitmatter in the laboratory. Einstein work on the theory of relativity, the famous equation $E=mc^2$, and understanding light as both a particle and a wave are legendary.

He took up academic posts as Professor at Prague, Berlin and later retired as the Professor of Theoretical Physics at the Princeton University, USA. He was awarded the Nobel Prize in 1921 in Physics for his services to Theoretical Physics, especially for his discovery of the law of the photoelectric effect.

Einstein died on April 18, 1955 in New Jersey as a US citizen.

"Things should be made as simple as possible, but not any simpler"

Albert Einstein

