Cardiovascular Disease Prevention

Habits of Youth Set Pattern

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THE POPULAR conception of cardiovascular diseases as a necessary evil of middle and old age is false on two counts. Children do have heart ailments, and while cardiovascular disease is an evil, it is not a "necessary" one.

As with many other problems in today's world, a number of cardiovascular diseases begin at a young age. This goes without saying for congenital malformation of the circulatory system. Acute heart disease associated with common child infections like diphtheria still appears from time to time, particularly in connection with epidemic outbreaks.

Rheumatic heart disease has roots in streptococcal sore throats of children. In some tropical and sub-tropical areas, particularly with cowdung and inadequate hygienic conditions, crippling rheumatic heart disease is very common among children and young people in hospital wards. Various other heart diseases occurring in tropical and sub-tropical areas, such as endomyocardial fibrosis or Chagas' heart disease, begin in childhood and sometimes lead to irreversible cardiac failure even before reaching adulthood.

Functional disorders of the heart, such as cardiac neurosis, are often recognized in children or adolescents and are frequently induced by a chance discovery of an innocent murmur. If this is incorrectly explained as a heart disease the stigma may persist throughout life. Neurosis usually reflects the hypersensitivity of the child as well as the neurotic atmosphere in the family.

More and more evidence indicates that "middle age" heart ailments also have their roots in childhood. For example, this is true of hypertension which accompanies renal diseases such as glomerulonephritis or pyelonephritis, resulting often from pyogenes infections of the skin in many tropical countries.

Ischaemic or coronary heart disease, the scourge of the present technically advanced society, may be due to unhealthy habits which begin in childhood. There are several reasons supporting this belief. The most severe manifestations of ischaemic heart disease—acute myocardial infarction or sudden unexpected death—are now occurring in younger people with greater frequency. Coronary atherosclerosis, which is the commonest lesion leading to coronary heart disease, begins in childhood. Blood cholesterol levels in children from countries with frequent ischaemic heart disease are higher than in places where the condition in adults is rare.

The habits which are involved in the development of atherosclerosis and ischaemic heart disease are acquired in childhood and adolescence. They include overeating, particularly rich foods with saturated fat and purified carbohydrates, lack of adequate physical activity and smoking.

The social environment of a child or adolescent may also contribute to the development of adult heart disease in a modern society often demanding a pace of daily life which exacts a heavy toll. For example, the insecurity of a child who suffers from lack of tenderness or inadequate care from his parents may carry over uncertainties of life to school and later on to work and lead to maladjustment throughout life and eventually to disease.

Some of these factors are difficult to control, others can be handled with relative ease, although changing life habits usually require far more effort than treating symptoms of the disease with a drug. Some preventive measures were accepted a long time ago by the medical profession and the community. These include early recognition and treatment of congenital malformations, of streptococcal and other infections, or prevention of cardiac rheumatism.

Health examinations in schools and education of both children and their parents help a great deal to raise the awareness in the community. However, much more effort is needed to reduce the chances of severe atherosclerosis and ischaemic heart disease in adults. It means increasing the emphasis on investigating causes of the diseases, on the recognition of known predisposing factors, and on introduction of appropriate actions in children and adolescents to assure optimal conditions for their healthy development. It also means adoption of healthier habits as early in life as possible in order to set a pattern for the future. The important role of the family first and school later should be more widely recognized and appreciated, be it for adoption of adequate dietary habits, or in sensitive understanding and advice on how to overcome the many smaller or bigger problems of daily life of the young.

Regular physical education, with emphasis on sports, must be encouraged to counterbalance hours of sitting at school and in front of the television screen. Furthermore, the young sportsman is not only less inclined to smoke, but he is also less apt to develop into a sedentary animal attached to the seat of his motor vehicle. He carries with him into adult life a higher physical fitness which may easily be regained even after years of low physical activity, and which should help him to keep fit longer than the untrained "soft" type.

The disturbed youth of today—less inclined to compromises than their parents—apparently suffer from the "achievements" of our civilization. In this sense the burden of cardiovascular disease cannot be lifted until the ecological balance of society is restored and a more sensible adaptation of man to his environment is achieved.

The habits of childhood often linger for a lifetime.

(Courtesy : WHO)