

PREVENTIVE PEDIATRIC CARDIOLOGY

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Historically, infectious diseases and undernutrition have been the focus of global health care initiatives by international organizations. However, there has been a move in recent years towards the prevention and management of chronic non-communicable diseases (NCD) such as cardiovascular disease (CVD), osteoporosis, diabetes mellitus and cancer. NCDs have spread rapidly and are no longer restricted to highly industrialized countries. For the first time, in 1997 the World Health organization (WHO) reported that NCDs constitute a more significant contribution to ill health throughout the world than do infectious diseases. In contrast to the situation in industrialized countries, it has been shown that in some developing economies, obesity begins much earlier in life and reaches a peak by the early forties. According to WHO estimates, by the year 2020, NCDs will account for approximately three-quarters of all deaths in the developing world.¹ In these societies, rapid modernization is associated with a cluster of NCD and unhealthy lifestyle including smoking, physical inactivity and rapid increase in junk food consumption. This has been described as the "Lifestyle Syndrome" or the "New World Syndrome", which is responsible for the very high rates of mortality in developing nations, and is likely to create an enormous socioeconomic and public health burden for poorer nations in the near future.

Interest in childhood precursors to NCD is increasing because:

1. There is ample evidence that the atherosclerotic process begins early in life.²⁻⁴

2. Both NCD behavioral and biological risk factors persist from childhood into adulthood.⁵⁻⁷

3. Several risk factors including overweight, dyslipidemia and high blood pressure track from childhood to adult life, and are linked to adult diseases.⁸⁻¹⁰

4. Numerous studies document alarming recent increases in obesity¹¹⁻¹³ and physical inactivity among youth, as well as disturbing trends in diet such as higher intakes of high-density low-nutrient foods.¹⁴

5. Many NCD risk factors are modifiable.

Children and adolescents should achieve optimal physical and cognitive development, enjoy food and physical activity, attain normal growth, and reduce the risk of chronic disease through healthy lifestyles, namely appropriate eating habits, participation in regular physical activity, and tobacco control.

Health promotion will help reduce lifestyle-related risks of chronic diseases such as CVD, type II diabetes mellitus, cancer, obesity and osteoporosis.

The health status of children and adolescents in Iran has improved in many areas, as evidenced by lower rates of communicable disease and declines in nutrient deficiency diseases of the past.

However, rapid westernization and lifestyle changes have made them prone to chronic diseases later in life.

The attainment of optimal health through improved diet and an increase in physical activity will promote decreases in chronic diseases.

Considering the tracking of NCD-related risk factors and risk behaviors from childhood to adult life, surveillance of such factors e.g. blood pressure, avoidance of smoking and overweight, as well as encouraging regular physical exercise in children and adolescents can provide useful information for long-term national planning against NCD.

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