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A Systematic Review on the Role of Diet and Nutritional Supplements for Prevention of Cardiovascular Diseases

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CHAN ET AL.: A Systematic Review on the Role of Diet and Nutritional Supplements for Prevention of Cardiovascular Diseases. According to the diet-heart hypothesis, dietary factors play a pivotal role in atherogenesis. Modulation of the diet has therefore been considered a means to achieve better cardiovascular health and a major subject of public health importance. Five major types of diet have been identified: the low-carbohydrate diet, low glycemic index diet, very-low-fat diet, the Mediterranean diet and the Dietary Approaches to Stop Hypertension (DASH) diet. Clinical studies have shown that none of these diets are universally efficacious. The results from various clinical trials on the use of diet to prevent cardiovascular diseases are commonly conflicting due to unadjusted caloric intake and concurrent changes in alternative food consumption. Nonetheless, a diet rich in fresh fruits and vegetables with polyunsaturated fat intake from plant oil and fish, but restricted intake of high glycemic index carbohydrates is generally advisable. The importance of an individualized approach and holistic lifestyle commitments including regular exercise should be emphasized. Currently, there is limited data on nutritional supplements in heart health. Recent clinical trials have shown that vitamins C and E supplement are ineffective, and the use of high dose vitamin B and folate is actually harmful. Physicians should therefore be cautious in advising on and prescribing these supplements. Phytoestrogen represents a recently focused branch of nutritional supplement with potentially cardioprotective implications. Its recommendations should depend upon further randomized controlled trials. (*J HK Coll Cardiol* 2005;13:68-84)

Coronary artery disease, diet, phytoestrogen, prevention, vitamins

摘要

基於飲食和心臟病關係的假設，飲食在動脈粥樣硬化中扮演著重要的角色。因此改變飲食結構被認為是改善心腦血管健康的一種方法，並且成為公共健康的一項重要課題。我們已經確定了五種主要類型的飲食：低碳水化合物飲食，低糖指數飲食，低脂肪飲食，地中海式飲食和阻斷高血壓方式的飲食。臨床研究表明沒有任何一種飲食類型是普遍有效的。運用飲食來防止心血管疾病的各種臨床試驗，其結果往往相互衝突，原因在於飲食的熱量攝入未加調整，和選擇性食物攝入的改變。儘管如此，飲食中含豐富新鮮水果和蔬菜，以植物油和魚類提供多聚不飽和脂肪酸，並且限制高糖指數的碳水化合物攝入，往往這樣的飲食結構是值得推薦的。我們應當強調包括經常性鍛煉在內的、個體化方法和整體機能生活方式的重要意義。最近的臨床研究顯示補充維生素C和E是沒有效用的，而大劑量的維生素B和葉酸實際上是有害的。因此，醫生們在推薦和處方這些補充物質時需要格外謹慎。植物類雌激素對於心血管具有潛在的保護作用，這代表着新近營養補充物的關注焦點。是否值得推薦還需進一步的隨機對照研究。

關鍵詞：冠心動脈性心臟病 飲食 植物類雌激素 預防 維生素

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