

# FUNCTIONAL FOOD – A ROLE OF NUTRACEUTICALS IN CARDIOVASCULAR DISEASE PREVENTION

## Summary

The primary role of diet is to provide sufficient nutrients to meet the nutritional requirements of an individual, but there is now increasing scientific evidence supporting the hypothesis that some food components have beneficial effects over and above the provision of the basic nutrients. Foods with the plant origin, besides of numerous nutrients contain many non-nutritive compounds, which may prevent many diet-related diseases, such as cardiovascular diseases or cancers. Plants produce a large number of phenolic compounds as secondary metabolites that may play a role in reducing the risk of disease or in improving the health. Many traditional food products including fruits, vegetables, soya, whole grains and milk have been found to contain components with potential health benefits beyond basic nutritive value. Additionally, new foods are being developed to enhance or incorporate these beneficial components for their health benefits or desirable physiological effects. Rapid advances in food science and technology and consumer interest in functional foods has increased during the late twentieth century. The concept of functional foods was born in

Japan and then the concepts of foods, developed specifically to promote health or reduce the risk of disease were introduced in Europe. Generally, functional foods are considered as those intended to be consumed as a part of the normal diet and contain biologically active components, and offer the potential enhancement of health or reduced risk of disease. Functional foods include products that contain specific minerals, vitamins, fatty acids or dietary fibre, foods with added biologically active substances such as phytochemicals or other antioxidants and probiotics with the live beneficial cultures. A variety of functional foods have been found to be potentially beneficial in the prevention and treatment of cardiovascular disease, which is the main cause of mortality in the world. These foods administered in adequate amounts may result in the decrease of cardiovascular diseases risk, at least by several potential mechanisms: lowering blood lipid levels, improving arterial compliance, reducing low-density lipoprotein oxidation, decreasing plaque formation, scavenging free radicals, and inhibiting platelet aggregation.