

## *INTRODUCTION*

The need for antioxidants in our diet is becoming more and more important as antioxidants fight and remove harmful byproducts of our metabolism burning energy. These harmful byproducts are called oxidative stress and are in the form of free radicals. Many of chronic diseases and cellular damage is associated with oxidative stress (**Meridium X., 2007**).

Psycho-emotional stress is one of the risk factors for metabolic syndrome and related diseases as exposure to chronic stress leads to development of metabolic alterations in the form of high blood pressure, abnormal blood sugar, high triglycerides, insulin resistance, excessive abdominal fat and increased cortisol in the blood stream .These symptoms called metabolic syndrome or X syndrome. The metabolic syndrome is associated with oxidative stress and increases the risk of heart disease and type 2 diabetes mellitus (**Tarani et al., 2006**).

Vitamin E is the most important fat-soluble antioxidant that ensures the stability and integrity of cellular tissues and membranes .Vitamin E is also known for decreasing platelet adhesion, protection against cataract and macular degeneration, it also can enhance the immune system and support resistance to infection the role of vitamin E as an antioxidant substance on metabolic changes induced by stress has a conflicting data (**Clarke R. ,2003**).