

# THE BENEFITS OF NUTRITION AND SUPPLEMENTATION TREATMENT FOR CRONIC NON-COMMUNICABLE DESEASE WITH ALPHA LIPOIC ACID

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## Abstract

Alpha-Lipoic acid (ALA), also known as thioctic acid, is non-essential sulfur-containing food constituent present in foods, generally bound to protein (lipoyllisine) at very low concentrations. The natural compound is the R enantiomer, while in food supplements is used generally the racemic form.

ALA is not only an antioxidant, but the only one that protects water-soluble as well as oil-soluble bio-molecules. Inside the body it is in an equilibrium with its reduced form dihydrolipoic acid and has the ability to regenerate or recycle other antioxidants, such as vitamins C and E. With age glutathione, the master antioxidant, declines but lipoic acid can restore its function, and also that of co-enzyme Q10, to much higher levels. In addition lipoic acid has various key functions in the body. A chronic condition is a human health condition or disease that is persistent or otherwise long lasting in its effects or a disease that come with time. Non-communicable disease is a medical condition that is non-infectious or non-transmittable. Chronic non-communicable diseases account for almost 60% of global mortality. The major causes of non-communicable-attributable mortality are cardiovascular disease, chronic respiratory disease, diabetes, metabolic syndrome etc.

Many studies have shown that Alpha-Lipoic acid has anti-inflammatory properties, enhances immune functions, and neutralizes free radicals in both the fatty and watery regions of cells witch can directly or non-directly help manage chronic non-communicable diseases. The most frequent clinical condition in which alpha-lipoic acid has been studied was in the management of diabetic peripheral neuropathy in patients with type 1 as well type 2.

**Key words:** *Alpha-Lipoic acid, Nutrition, Supplementation, Antioxidant, Anti-inflammatory, Chronic non-communicable disease.*