ALA ORAC +
α-Lipoic acid with fruits and vegetable concentrates

A unique blend of potent antioxidants necessary for human tissue health; maintains cell membrane integrity and fluidity; reduces damage from Reactive Oxygen Species (ROS)

Each dose (2 capsules) provides
α-Lipoic Acid ................................................................. 400 mg
Lemon Bioflavonoid Complex ......................................... 100 mg
Hi-ORAC Fruit Blend (995 ORAC units) ...................... 166 mg
Hi-ORAC Vegetable Blend (830 ORAC units) ............. 166 mg

Other ingredients: gelatin (capsule), cellulose, magnesium stearate (vegetarian), silica.

DIRECTIONS take one capsule twice daily before or with meals or as directed by your health professional. Store in a cool place and keep from children

HOW SUPPLIED 60 capsules per bottle

WARNING those on glucose medications should monitor their blood glucose levels (α-lipoic acid may sometimes depress glucose levels) and consult their health care provider in case nutritional adjustment becomes necessary.

INDICATIONS ALA ORAC+ is indicated for use to assist with the following
• An aid for returning to normal blood sugar levels
• People with complaints of tiredness and low energy
• Persons desiring additional antioxidants beyond the traditional, extra B-vitamin complex
• People trying to minimize the effects of advancing age

KEY FEATURES
• α-lipoic acid as well as the fruit and vegetable blends in ALA ORAC+ are both water and fat soluble, allowing digestion between and with meals
• Large doses of α-lipoic acid have been used routinely in Europe (up to 600 mg/day), so this key antioxidant has an excellent safety and efficacy history
• ALA ORAC+ provides excellent antioxidant protection by quenching peroxides and hydroxyl radicals, together termed Reactive Oxygen Species (ROS) the most common and dangerous oxidizing compounds in mammalian tissues
• ALA ORAC+ helps your body recycle the antioxidant vitamins C, E, the precious coenzyme Q10 and reduces inactive, oxidized glutathione by-products back to active glutathione
• ALA ORAC+ is an excellent supplement for people exercising regularly; for even mild exertion releases damaging free radicals

Why α-lipoic acid – a small molecule which is an essential portion of the active sites of enzymes controlling keto-acid oxidation. These key oxidations by α-ketoglutarate dehydrogenase (KGDH) and pyruvate dehydrogenase (PDH) are done in close combination with vitamins B1 and B2; the products are sent to the Krebs cycle for further oxidation to CO₂, spurring the biosynthesis of the energy polyphosphates, ATP and GTP. α-lipoic acid also a prime antioxidant, returning both vitamin E and coenzyme Q10 back to their effective, reduced states in a quick, reversible manner through reactions starting from dietary vitamin C and Hi-

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we were teenagers, but we lost this critical capability with age. By 40 years we have lost our synthetic ability; levels for adults with pathologies, including diabetes, exhibit drastic decreases. We receive 1797-1804, and of Vitaminology (Kyoto) 7:

What conditions are improved with α-lipoic acid? Type 2 diabetes; the most important effect of this nutrient is to reduce the symptoms of polyneuropathy. Claims of successful stoppage of the progression of Alzheimer’s symptoms have been made; the mechanisms of treatments for both neural pathologies may be related. Liver cirrhosis; claims have been made for rapid recovery. α-lipoic acid has also been shown to nicely reduce the toxic effects of cadmium upon the liver.

How much do I need? “Normal” adults require from 100 to 200 mg or more each day and many pathologies show clinical improvement when the amount is increased to 600 mg (or more) per day.

What is ORAC? This is the Oxygen Radical Absorbance Capacity of anti-oxidants. ORAC is a quantitative measure of how well ROS can be detoxified by forming inert biochemicals; the higher the ORAC value the better. ORAC is evaluated using controlled, reproducible laboratory tests and may be done on teas, fruit and vegetable extracts (phytochemicals), vitamins A, C, E as well as α-lipoic acid, Co Q10 and can even be run on serum, urine and mammalian tissues. Clinical studies have shown that ORAC serum levels are significantly raised after eating meals high in fruits and vegetables. Extracts high in ORAC have been found to significantly inhibit undesirable proliferation of a cultured human cell line and dietary habits high in ORAC may be partly responsible for the longevity of folks in eastern Asia.

Why do we need α-lipoic acid? – we were capable of biosynthesizing enough α-lipoic acid for our needs when we were teenagers, but we lost this critical capability with age. By 40 years we have lost our synthetic ability; levels for adults with pathologies, including diabetes, exhibit drastic decreases. We receive small doses from diets high in meat, but a healthy, balanced diet is not adequate to remedy this acquired deficiency. In humans, α-lipoic acid can’t be synthesized from sulfur containing supplements like DMSO or MSM, but slowly from the amino acid methionine, which is often in short supply. α-lipoic acid is thus an acquired vitamin and best supplemented daily.

ORAC phytonutrients. In addition, α-lipoic acid reduces oxidized glutathione, the important intracellular antioxidant, to the functional form.

The structure of α-lipoic acid – an 8-carbon dithiol; reminiscent of small, fatty acids.

A 2D diagram of one structure of α-lipoic acid: both sulfurs are presented in the anionic forms, to accent the location of these electron rich atoms. Two protons (positive charges) are always nearby to conserve electroneutrality. The dioxygen end of this molecule is often covalently attached to important energy producing enzymes, such as PDH, via a lysyl-amino group from the enzyme.

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References

8 Cao G et al. (1998). Serum antioxidant capacity is increased by consumption of strawberries, spinach, red wine or vitamin C in elderly women. Journal of Nutrition 128: 2383-2390.

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