Supplements to help manage Blood Sugar Health

Alpha-Linolenic Acid

COMMON NAME: ALA omega-3

SCIENTIFIC NAME: ALA, 18:3 n-3

NOT RECOMMENDED - EVIDENCE

LEVELS OF EVIDENCE

1

Recommended:
Several well-designed studies in humans have shown positive benefit. Our team is confident about its therapeutic potential.

2

Recommended with Caution:
Preliminary studies suggest some benefit. Future trials are needed before we can make a stronger recommendation.

3

Not Recommended - Evidence:
Our team does not recommend this product because clinical trials to date suggest little or no benefit.

4

Not Recommended – High Risk:
Our team recommends against using this product because clinical trials to date suggest substantial risk greater than the benefit.

Evaluated Benefits

No evidence of efficacy or not indicated

Cleveland Clinic Wellness

Supported by P&G

Source
Dietary alpha-linolenic acid is found primarily in vegetable oils, such as flaxseed (linseed) oil and canola (rapeseed) oil. Walnuts are the only edible nuts with significant amounts of alpha-linolenic acid. Alpha-linolenic acid is found in smaller amounts in green leafy vegetables and chocolate. ALA is an essential fatty acid that must be consumed for you to have any in your body.

Indications/Population
Lowering of blood sugar/diabetes and metabolic syndrome

Mechanism of Action
ALA may increase insulin sensitivity directly or decrease hepatic fat storage. Some (2–15%) is concentrated to EPA, and less (<2%) to DHA. Due to the limited capacity of humans to elongate and desaturate ALA to EPA, even when ALA is fed at high levels, the mechanism may be different for different omega-3's.

The improved insulin sensitivity in response to n-3 PUFAs may be due to enhanced insulin signaling, increased insulin release, and response in tissues.

Side Effects
Weight gain if high amounts are consumed without decreasing other calories consumed

Dosing
2–3 grams per day of ALA

Drug Interactions/Cautions
Alpha-linolenic acid from dairy and meat sources has been positively associated with prostate cancer. Alpha-linolenic acid from plant sources, such as flaxseed, may decrease prostate cancer risk, but these are animal and in-vitro studies. Longer-chain omega-3 fatty acids (DHA) in fish oils are associated with a decreased risk of total and advanced prostate cancer. Tell men not to be concerned about moderate dietary intake of alpha-linolenic acid (e.g., canola oil, walnuts, and flaxseed oil), especially if this replaces intake of oils rich in omega-6 fatty acids. We do not know of an increased risk by consuming ALA containing foods, save increased calorie consumption.

Notes
Estrogen is the cause of the higher conversion of ALA to EPA or DHA in women rather than in men. Aging is a factor of decreasing DHA synthesis from the reduced-plasma ALA.

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