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primary studies - published RCT

## Effects of an Antioxidant-enriched Multivitamin in Cystic Fibrosis: Randomized, Controlled, Multicenter Trial.

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### Study design (if review, criteria of inclusion for studies)

Multicenter, randomized, double-blind, controlled trial

### Participants

73 pancreatic insufficient CF subjects 10 years of age and older with an FEV1 between 40-100% predicted

### Interventions

Patients were randomized to 16 weeks of an antioxidant-enriched multivitamin or control multivitamin without antioxidant enrichment.

### Outcome measures

Systemic antioxidant concentrations, markers of inflammation and oxidative stress, clinical outcomes (pulmonary exacerbations, anthropometric measures, pulmonary function), safety and tolerability.

### Main results

Change in sputum myeloperoxidase concentration over 16 weeks, the primary efficacy endpoint, was not significantly different between the treated and control groups. Systemic antioxidant concentrations (beta-carotene, CoQ10, gamma-tocopherol, lutein) significantly increased in the antioxidant treated group (p

### Authors' conclusions

Antioxidant supplementation was safe and well tolerated, resulting in increased systemic antioxidant concentrations and modest reductions in systemic inflammation after 4 weeks. Antioxidant treatment was also associated with a lower risk of first pulmonary exacerbation.

<http://dx.doi.org/10.1164/rccm.201801-0105OC>

### See also

Am J Respir Crit Care Med. 2018 Apr 24. doi: 10.1164/rccm.201801-0105OC.

### Keywords

Vitamin A; Vitamin D; Vitamin E; Vitamin K; Vitamins; pharmacological\_intervention; Supplementation; Antioxidants;