

# Vitamin C may be beneficial against exercise-induced bronchoconstriction

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Vitamin C may substantially reduce bronchoconstriction caused by exercise, says Dr. Harri Hemila from the University of Helsinki, Finland. Hemila's meta-analysis "Vitamin C may alleviate exercise-induced bronchoconstriction" was published in *BMJ Open* (7 June, 2013)

**More information:** Hemila, H. Vitamin C may alleviate exercise-induced bronchoconstriction: a meta-analysis, *BMJ Open* 2013;3:e002416 [doi:10.1136/bmjopen-2012-002416](https://doi.org/10.1136/bmjopen-2012-002416)

Exercise-induced bronchoconstriction means the transient narrowing of the airways that occurs during or after exercise. It can cause symptoms such as cough, wheezing and the shortness of breath. Formerly, this condition was called exercise-induced asthma. Usually, the diagnosis of exercise-induced bronchoconstriction is based on a 10% or greater decline in forced expiratory volume in 1 second ([FEV1](#)) caused by exercise. About 10% of the general population suffers from exercise-induced bronchoconstriction, but among some fields of competitive winter sports the prevalence can be up to 50%.

Provided by University of Helsinki

Previously, vitamin C was found to halve the incidence of common cold episodes in people enduring heavy short-term [physical stress](#), which indicated that vitamin C might also have other effects on people under heavy [physical exertion](#). The new systematic review focused on the effect of vitamin C on bronchoconstriction caused by exercise and identified three relevant randomized placebo-controlled trials. Each of the three identified trials found that vitamin C halved the FEV1 decline caused by exercise challenge test. The pooled estimate of vitamin C effect indicated a 48% reduction in the FEV1 decline caused by exercise.

Dr. Hemila concludes that given the low cost and safety of vitamin C and the consistency of positive findings in three [randomized trials](#) on EIB, it seems reasonable for physically active people to test vitamin C on an individual basis if they have [respiratory symptoms](#) such as cough associated with exercise.

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