

# Nutrient supplement bar improves lung function in asthmatic adolescents

July 19 2018

---

A small pilot clinical trial published in *The FASEB Journal* shows that targeted nutrient therapy can improve lung function in obese individuals with asthma without requiring weight loss. Specifically, the study demonstrated that eating two CHORI-Bars (patent-pending supplement bars designed to fill nutritional gaps in poor diets) daily for eight weeks improved lung function in obese adolescents with a form of asthma that is resistant to usual treatments. With a sample size of 56 participants, these findings are provocative and point to the need for larger trials.

"Asthma is common and can be difficult to treat in [obese individuals](#), who tend to have very poor diets," stated Bruce Ames, Ph.D., senior scientist at UCSF Benioff Children's Hospital Oakland Research Institute (CHORI), who with his colleague Mark Shigenaga, Ph.D., an expert in gut health, originated the idea for the CHORI-Bar. The bar was developed along with a research group at the USDA's Healthy Processed Foods Research Unit.

"It can be difficult for many individuals to adhere to a strict and completely nutritious diet. This study shows that targeted nutritional interventions such as the CHORI-Bar can improve lung function without requiring a complete change in dietary habits," stated Joyce McCann, Ph.D., director of the CHORI-Bar project.

To conduct the clinical trial, the nutritional scientists collaborated with pediatric lung specialists Mustafa Bseikri, MD, Edward Fong, MD, and Karen Hardy, MD. The ability of the bar to improve asthma and quality

of life was tested in two groups of obese adolescents with poorly controlled asthma at UCSF Benioff Children's Hospital Oakland. Both groups (totaling 56 participants) attended eight weekly classes that emphasized the importance of healthy eating and exercise, though participants were not required to change their diets. One of the groups also ate two CHORI-Bars each day. The research team measured participants' lung function and other indicators of metabolic health at the beginning and end of the study. Improvement in [lung function](#) occurred only in participants who ate the bars.

The study also found that improved [lung function](#) only occurred in individuals with a low level of chronic inflammation. The role of chronic inflammation in blunting the positive effects of CHORI-Bar consumption in obese participants was also observed in a 2015 study led by McCann in obese adults, and is a topic for further study.

The development of the CHORI-Bar is grounded in the Triage Theory proposed by Ames in 2006. The theory states that when an essential nutrient is modestly deficient, the body directs the nutrient's limited supply to essential short-term functions, at the expense of those preventing long-term insidious damage, which leads to diseases of aging such as cancer and heart disease. The theory predicts that even a modestly inadequate intake of essential vitamins and minerals can have an adverse effect on bodily functions needed for a long and healthy life.

"This is a tremendous insight, led by a world pioneer in metabolism," said Thoru Pederson, Ph.D., Editor-in-Chief of *The FASEB Journal*.

Provided by Federation of American Societies for Experimental Biology

Citation: Nutrient supplement bar improves lung function in asthmatic adolescents (2018, July 19) retrieved 17 April 2024 from <https://medicalxpress.com/news/2018-07-nutrient-supplement->

[bar-lung-function.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.