

# FRESH HASS AVOCADOS AND HAMBURGERS: RESEARCH SUMMARY AND FREQUENTLY ASKED QUESTIONS

fresh avocados  
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The Hass Avocado Board is supporting research to improve understanding of the unique, positive benefits of consuming fresh avocados to human health and nutrition. In 2012, the UCLA pilot study, "Hass Avocado Modulates Postprandial Vascular Reactivity and Postprandial Inflammatory Responses to a Hamburger Meal in Healthy Volunteers," was published in the journal *Food and Function*.<sup>1</sup> The following is a snapshot of the research findings and a FAQ on the study.

## PILOT STUDY RESEARCH FINDINGS

A pilot study conducted by University of California, Los Angeles (UCLA) this year showed that when 11 healthy men added fresh avocado to a burger (90% lean), some of the after-meal effects observed after eating a plain burger, specifically inflammation and narrowing blood vessels, were reduced within hours.<sup>1</sup> More research is needed to determine whether these results could apply to other individuals.



## FREQUENTLY ASKED QUESTIONS (FAQ)

### What was this study investigating?

*The pilot study investigated the effects of adding one-half of a fresh medium Hass Avocado to a hamburger (90 percent lean) on peripheral arterial blood flow (the movement of blood to different parts of the body) and inflammation, compared to a burger without avocado in 11 healthy men.*

### What were the key findings from this study?

*When 11 healthy men added one-half of a fresh medium Hass Avocado to a burger some of the after-meal effects observed after eating the plain burger, specifically inflammation and narrowing blood vessels, were reduced within hours. Additionally, despite the extra calories and good fats added to the meal from the avocado, triglyceride levels did not increase beyond what was observed when the plain burger was eaten. More research is needed to confirm these findings.*

### How long did it take to observe the changes that took place when healthy men added avocado to a burger?

*The benefits of adding Hass Avocado to a burger were seen within about 4 hours after the meal.*

(continued)

## What is the relationship between inflammation and health?

Inflammation is a normal process that can occur in response to a number of factors, including consumption of diets rich in saturated fat or with a high glycemic index or glycemic load (fast digesting carbohydrates).<sup>ii,iii</sup> Inflammation is associated with heart disease,<sup>iv</sup> and over time it may play a role in the development of atherosclerosis (hardening of the arteries).

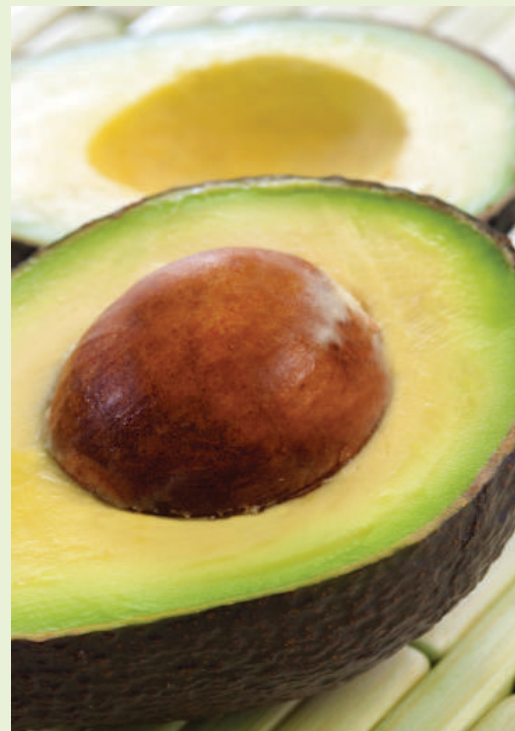
## Is there something special with avocado's composition that resulted in the studies' positive outcomes?

Avocados, like extra virgin olive oil, contain natural, unprocessed oils that are predominantly good monounsaturated fats. Researchers believe that the study's positive outcomes may be a result of the combination of monounsaturated and polyunsaturated fats and antioxidants found in avocados. However, more research is needed to confirm this theory.

## Are these findings applicable to everyone?

This was a pilot study on 11 healthy men, so these findings are not applicable to the general population. While these are initial findings from a single study, they provide promising clues and a basis for future research to determine whether avocados can play a role in the areas of vascular health and heart health.

Learn more about the study and its findings at: [AvocadoCentral.com/UCLAStudySummary](http://AvocadoCentral.com/UCLAStudySummary).



<sup>i</sup>Li Z, Wong A, Henning SM, Zhang Y, Jones A, Zerlin A, Thames G, Bowerman S, Tseng CH, and Heber D. (2012). Hass Avocado Modulates Postprandial Vascular Reactivity and Postprandial Inflammatory Responses to a Hamburger Meal in Health Volunteers. Food and Function. DOI: 10.1039/C2FO30226H

<sup>ii</sup>Oregon State University. Linus Pauling Institute. Nutrition and Inflammation. Available at: <http://lpi.oregonstate.edu/infocenter/inflammation.html>. Accessed on August 7, 2012.

<sup>iii</sup>O'Keefe JH, Gheewala NM, O'Keefe JO. Dietary Strategies for Improving Post-Prandial Glucose, Lipids, Inflammation, and Cardiovascular Health. J Am Coll Cardiology. 2008;51:249-55.

<sup>iv</sup>American Heart Association. Inflammation and Heart Disease. Available at: [http://www.heart.org/HEARTORG/Conditions/Inflammation-and-Heart-Disease\\_UCM\\_432150\\_Article.jsp](http://www.heart.org/HEARTORG/Conditions/Inflammation-and-Heart-Disease_UCM_432150_Article.jsp). Accessed on August 24, 2012.

<sup>v</sup>Libby P, Ridker PM, Maseri A. Clinical Cardiology: New Frontiers. Inflammation and Atherosclerosis. Circulation. 2002; 105: 1135-1143