

SCIENTIFIC SUMMARY

Hass avocado modulates postprandial vascular reactivity and postprandial inflammatory responses to a hamburger meal in healthy volunteers



STUDY OVERVIEW

The pilot study on 11 healthy men (18-35 years old), Hass Avocado Modulates Postprandial Vascular Reactivity and Postprandial Inflammatory Responses to a Hamburger Meal in Healthy Volunteers, conducted by researchers at the University of California, Los Angeles (UCLA), and supported by the Hass Avocado Board, has been published in November's issue of the journal Food and Function.¹ The 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.¹

STUDY KEY FINDINGS

Eating one-half of a fresh medium Hass avocado with a burger (90 percent lean), rather than eating a burger alone, may curb the production of compounds that contribute to inflammation.¹

The fresh avocado, when eaten with a burger, may neutralize Interleukin-6 (IL-6), a protein that is a measure of inflammation, compared to eating a burger without fresh avocado.¹

Specifically, researchers observed a significant peak (approximately a 70 percent increase), of IL-6, four hours after the plain burger was eaten but little effect on IL-6 (approximately a 40 percent increase) over the same time period when fresh avocado was eaten with the burger.¹

When fresh avocado was eaten with a burger there was no increase in triglyceride levels beyond what was observed after eating the burger alone despite the extra calories and monounsaturated

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.¹

After eating a burger with one-half of a fresh medium Hass avocado, some of the after-meal effects observed after eating a plain burger, specifically inflammation and narrowing blood vessels, were reduced within hours.¹

The Hass avocado, when eaten with the burger, neutralized IL-6 levels four hours after the meal, compared to eating the plain burger.¹

More research is needed to determine whether fresh avocado plays a role in maintaining or improving blood flow.¹

Researchers reported that the difference in peripheral arterial blood flow (the movement of blood to different parts of the body, as measured by PAT), a predictor of vascular health, after eating the hamburger meal compared to the hamburger-fresh avocado meal was approaching statistical significance ($P=.052$).¹

PAT scores significantly decreased (signifying reduced blood flow) only after the plain burger was eaten (approximately a 27 percent drop, on average) compared to a burger with fresh avocado (approximately a 4 percent drop, on average, signifying less reduction in blood flow); suggesting that the addition of the fresh avocado may have mitigated the additional 23% decrease in PAT scores (decrease in blood flow) measured after consumption of the burger alone.¹

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.

1. 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.