



RESEARCH ON AVOCADOS AND BELLY FAT

With nearly 70% of adults affected by overweight and obesity, excess body weight presents a major public health challenge in the United States.



Overweight and obesity are linked to abdominal (belly) fat, which increases the risk for chronic diseases. Healthy eating patterns associated with better weight management include more fruits, vegetables, and unsaturated fats than most people eat.

● — **Avocados are a fruit and contribute 6 grams of unsaturated fats.**

BODYWEIGHT VS BELLY FAT

What is a healthy weight?

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- Two screening tools used to determine if weight is healthy or not are body mass index (BMI) and waist circumference.
 - While a high BMI can indicate an increased risk for health issues, it does not measure body fatness which is also essential.
 - Waist circumference assesses belly fat and is another way to estimate the risk for obesity-related health issues. If most body fat is around the waist, as opposed to hips, the risk for heart disease and type 2 diabetes is higher.
 - Belly fat is a combination of the fat just under the skin (subQ) and fat around the abdominal organs (visceral adipose tissue, VAT). VAT is more of a health concern than subQ fat¹.



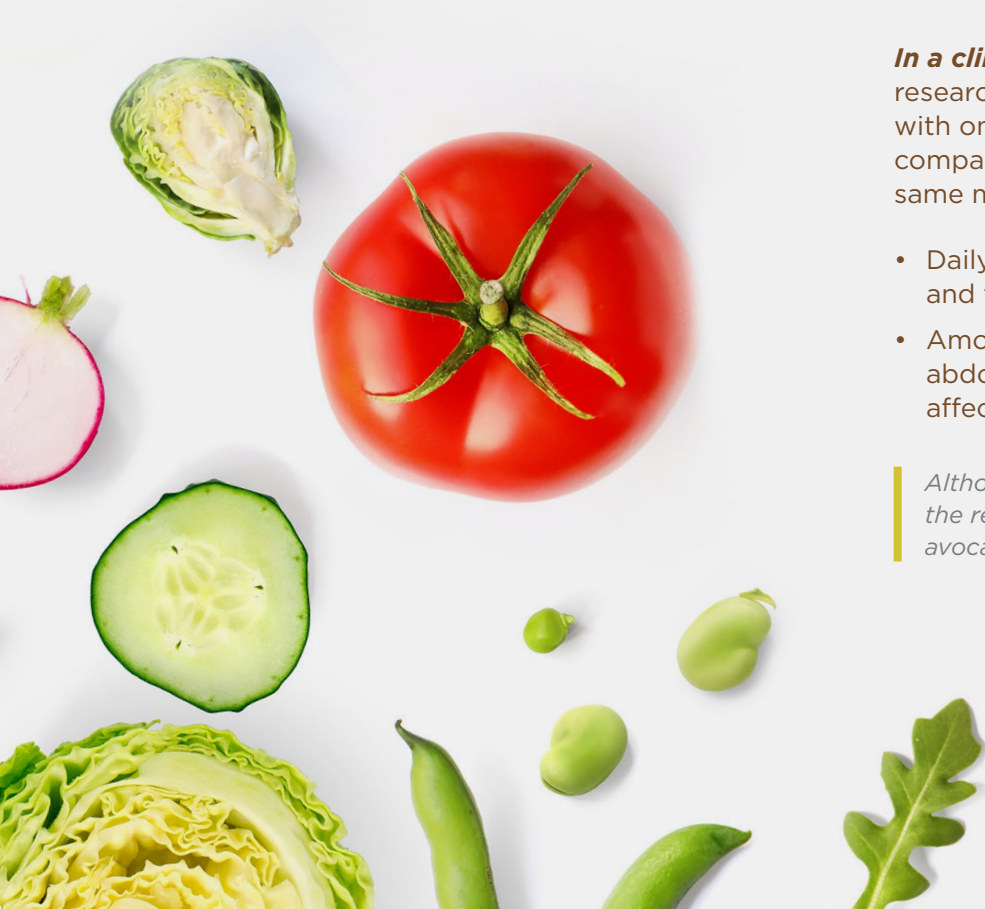
SCIENCE SUGGESTS A ROLE FOR AVOCADOS IN WEIGHT MANAGEMENT

The Avocado Nutrition Center supported research to understand better the relationship between eating avocado and weight management.

In a study² of 55,000 adults who follow the Seventh-Day-Adventist lifestyle, researchers found that regularly eating avocados is linked to a lower risk of becoming overweight or obese.

In another study³ of 29,000 adults who on average consumed slightly more than half of a medium avocado per day, found that avocado consumers were 33% less likely to be overweight or obese and 32% less likely to have an elevated waist circumference than non-consumers.

Although these studies' findings cannot be considered causal, and more studies are needed, the data suggests a role for avocados in weight management.



In a clinical study⁴ of 105 overweight-obese adults, researchers studied whether eating a daily meal with one avocado would alter body fat distribution compared to not consuming avocado with the same meal for 12 weeks.

- Daily avocado intake decreased women's VAT and the ratio of VAT to subQ fat.
- Among men, there were no changes in abdominal fat. Oral glucose tolerance was not affected by the avocado.

Although more research is needed to generalize the results to all people, the findings suggest avocados may beneficially alter belly fat.

SIMPLE SWAPS TO CUT CALORIES

Fiber (3 grams per serving) and water comprise most of a nutrient-dense avocado, so they are considered a low-energy-dense fruit. Avocados are a great option to boost fiber intake, and they fit into the healthy eating patterns of the Dietary Guidelines for Americans.

Making small dietary changes to include more fiber and replacing foods higher in energy density with avocado may help your patients consume fewer calories and manage their weight.



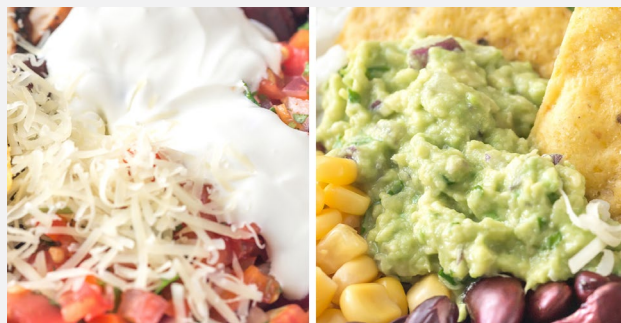
Replace butter and jelly
on toast with avocado



Top a burger with avocado instead
of bacon and full-fat cheese



Make a creamy tuna salad with
avocado in place of mayonnaise



Substitute avocado for full-fat cheese
and sour cream in a burrito bowl

References:

1. <https://www.health.harvard.edu/staying-healthy/abdominal-fat-and-what-to-do-about-it>
2. Heskey C, et al. "Avocado Intake, and Longitudinal Weight and Body Mass Index Changes in an Adult Cohort." *Nutrients*. 2019;3. L. Zhu, Y. et al. "Using the Avocado to Test the Satiety Effects of a Fat-Fiber Combination in Place of Carbohydrate Energy in a Breakfast Meal in Overweight and Obese Men and Women: A Randomized Clinical Trial." *Nutrients*. 2019.
3. Fulgoni VL, et al. "Avocado consumption is associated with better diet quality and nutrient intake, and lower metabolic syndrome risk in US adults: results from the National Health and Nutrition Examination Survey (NHANES) 2001-2008." *Nutrition Journal*. 2013;5. Heskey C, K., et al. "Avocado Intake, and Longitudinal Weight and Body Mass Index Changes in an Adult Cohort." *Nutrients*. 2019.
4. Khan N, et al. Effects of avocado consumption on abdominal adiposity and oral glucose tolerance. *Journal of Nutrition*. 2021.