



AVOCADOS and HEART HEALTH

Can eating one avocado per day
improve risk factors for heart disease?

Nutrient-dense avocados contribute monounsaturated
fats, antioxidants, fiber and phytosterols.

DID YOU KNOW?

30% of the fiber in an avocado is soluble fiber which helps prevent your
digestive tract from absorbing cholesterol and reduces the risk of heart disease.

Replacing half a serving/day of margarine, butter, egg, yogurt, cheese, or
processed meats with the equivalent amount of avocado was associated with
a 16% to 22% lower risk of Cardiovascular Disease.¹



A GROWING BODY OF SCIENTIFIC EVIDENCE DEMONSTRATES THAT AVOCADOS CAN BE PART OF A HEART-HEALTHY EATING PLAN.

A 30-year study following 110,487 non-Hispanic primarily white health professionals and nurses found that people who reported eating at least one avocado a week was associated with reduced cardiovascular disease and coronary heart disease, but not risk for stroke, than participants who never or rarely ate avocados. The results were adjusted for diet and lifestyle, do not show a direct cause and effect, and are limited to self-reported dietary collection.

In a clinical trial, participants who ate an avocado a day, as part of a moderate-fat diet, had reduced total cholesterol and bad LDL-cholesterol and improved the ratio of total cholesterol to good HDL-cholesterol levels, compared to participants who did not consume avocado (low-fat or moderate-fat oils diets). By adding the avocado, researchers noted increased blood antioxidant levels and decreased the oxidation of small, dense LDL-cholesterol levels.

Lastly, a meta-analysis evaluated the impact of avocado intake on LDL cholesterol. Researchers concluded with moderate evidence that avocado intake has a medium to large effect on LDL-C levels. This study relies on published work, presenting unique limitations, and the findings cannot be generalized to all populations. The researchers assessed the risk of bias and strength of evidence for each of the 12 clinical trials and 14 comparisons. The results from this large study support avocados as a heart-healthy fruit.



HIGHER AVOCADO INTAKE (≥2 SERVINGS/WEEK) HAD:



Adjusted for lifestyle and other dietary factors,
and compared with non-consumers.

These findings support
avocados as a heart-
healthy fruit.

* Some of the studies were supported by the Avocado Nutrition Center. All studies have their limitations. Additional longer-term research is needed to understand whether eating a serving of avocado (50 g) in a larger, U.S. representative population would provide the same benefits.

1. Pacheco, L.S., et al. Avocado Consumption and Risk of Cardiovascular Disease in US Adults. *Journal of the American Heart Association*. 2022.
2. Wang, L., et al. A Moderate-Fat Diet with One Avocado per Day Increases Plasma Antioxidants and Decreases the Oxidation of Small, Dense LDL in Adults with Overweight and Obesity: A Randomized Controlled Trial. *Journal of Nutrition*. 2020.
3. Wang L., et al. The Effect of a Moderate Fat Diet With and Without Avocados on Lipoprotein Particle Number, Size and Subclasses in Overweight and Obese Adults – A Randomized, Controlled Trial. *Journal of American Heart Association*. 2015.
4. Schoeneck M., et al. The Effects of Foods on LDL Cholesterol Levels: A Systematic Review of the Accumulated Evidence from Systematic Reviews and Meta-Analyses of Randomized Controlled Trials. *Nutrition, Metabolism, and Cardiovascular Diseases*. 2021.

WHAT YOUR PATIENTS EAT CAN BE JUST AS IMPORTANT AS WHAT THEY DON'T EAT.

As shown in the research¹⁻⁴, consuming one avocado per day may be a delicious and easy way to facilitate heart-healthy diet changes. Making small dietary changes to include more fiber, phytosterols, and replacing saturated fat with unsaturated fat may help your patients lower their LDL cholesterol.

For example, replace:

1 ounce of regular cream cheese *with*



1/3 of a medium avocado
on a bagel

1 Tbsp. mayonnaise *with*



1/3 of a medium avocado
on a sandwich

2 Tbsp. oil-based salad dressing *with*



1/3 of a medium avocado
on a salad

With these simple daily swaps, you can provide:



- 97 **less calories**
- 12 grams **less fat**
- 6 grams **less saturated fat**
- 8 grams **more monounsaturated fat**
- 10 grams **more fiber**
- 178 mg **less sodium**
- 404 mcg **more lutein**
- and 100 mg **more phytosterols**

Note: Food items calculated using the Recommended Amount Customarily Consumed (RACC) and USDA Food Data Central, SR Legacy accessed on February 2020. 1 oz cheese, cream; 1 Tbsp. salad dressing, mayonnaise, regular; 2 Tbsp. Salad dressing, home recipe, vinegar and oil.



AVOCADOS, CHOLESTEROL, and YOU

Include delicious, heart-healthy avocados in everyday healthy eating plans to help increase fruit and vegetable intake and provide a whole food source of naturally good fats, fiber and other important nutrients. Avocados are also low in saturated fat, cholesterol-free, and sodium-free.



AVOCADOS CONTAIN GOOD MONOUNSATURATED FATS

Monounsaturated fats can help reduce bad cholesterol levels in your blood which can lower your risk of heart disease and stroke.

One third of a medium avocado contains 5 grams of good monounsaturated fat.



AVOCADOS ARE A GOOD SOURCE OF FIBER

Avocados are a great fresh fruit option to help boost fiber intake.

30% of the fiber in an avocado is soluble fiber which helps prevent your digestive tract from absorbing cholesterol. Diets rich in healthy foods containing fiber may reduce the risk of heart disease, obesity, and type 2 diabetes.



AVOCADOS CONTAIN PHYTOSTEROLS

Phytosterols are naturally occurring substances found in avocados and other plant foods that help to block the absorption of cholesterol in the body when consumed twice daily as part of a diet that is low in saturated fat and cholesterol. One-third of a medium avocado contains 38 milligrams of beta-sitosterol.



HOW CAN YOU EAT MORE HEART-HEALTHY AVOCADO?

It's simple! Just trade one food for a serving of avocado.

MyPlate recommends making half your plate fruits and vegetables. One avocado counts as one cup of vegetables out of the 2-3 cups recommended daily for adults.



Spread avocado on your toast or bagel instead of butter, margarine or regular cream cheese.



Replace regular sour cream dips with guacamole.



Replace one-half the oil or butter in your baked good recipe with equal amount of pureed avocado.



Add avocado chunks to chili, tacos, soups and burritos instead of regular fat cheese.



Use avocado spread as a condiment on your sandwich.



Need more fiber in your smoothie? Avocados help boost fiber intake.



Bake an egg inside an avocado half and ditch the toast.



Use a homemade, creamy avocado dressing on your salad.



Whip up some creamy, homemade avocado ice cream.



Looking for a lower-carb power lunch? Top half of an avocado with tuna or chicken salad.



AVOCADO BAGEL SPREAD

INGREDIENTS

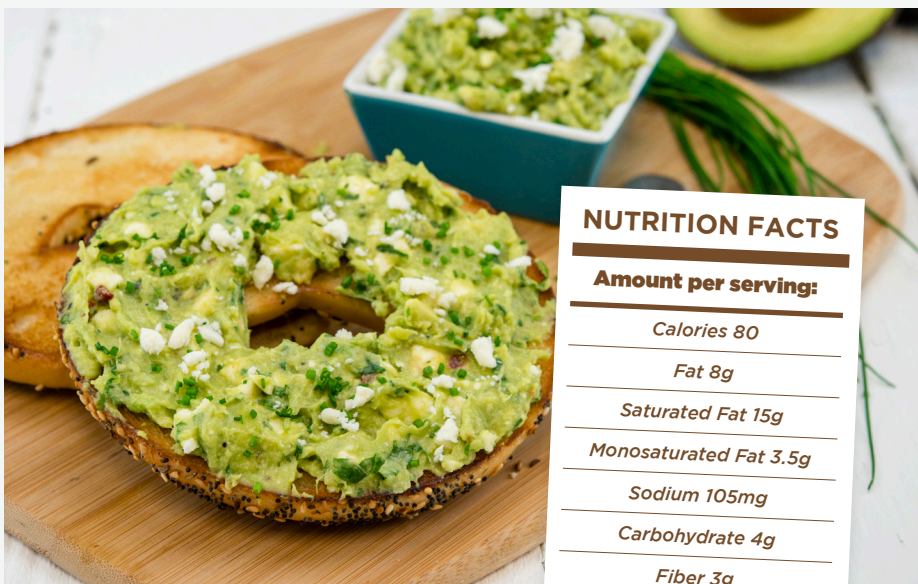
- 1 ripe, fresh avocado, halved, pitted and peeled
- 1 oz. Feta cheese
- 1/4 tsp. onion powder
- 1 1/2 Tbsp. chives or cilantro, chopped
- 1/8 tsp. ground black pepper
- Dash of cayenne pepper
- Sea salt (to taste)
- Red pepper flakes (to taste)
- 1 Tbsp. fresh squeezed Lemon juice

Alternative Seasoning Options:

- 1/4 tsp. Lemon pepper (in place of onion powder)

INSTRUCTIONS:

1. Combine avocado with goat cheese and mix until well blended.
2. Add remaining seasonings and mix well.
3. Adjust sea salt and red pepper flakes to taste.
4. Garnish with fresh lime slices and a sprig of cilantro.



NUTRITION FACTS

Amount per serving:

Calories 80

Fat 8g

Saturated Fat 15g

Monosaturated Fat 3.5g

Sodium 105mg

Carbohydrate 4g

Fiber 3g

Protein 2g



MEXICAN "HOT CHOCOLATE" SPICED AVOCADO MINI MUFFIN BITES



NUTRITION FACTS

Amount per muffin:

Calories 100

Fat 4g

Saturated Fat 1g

MUFA 2g

Sodium 60mg

Carbohydrate 14g

Fiber 1g

Protein 2g

INGREDIENTS

- 1 3/4 cups flour, sifted
- 1/2 cup unsweetened cocoa powder, sifted
- 1 1/2 tsp. baking powder
- 2 very ripe, fresh avocados, halved, peeled, pitted and mashed
- 1 1/2 tsp. ground cinnamon
- 1/2 tsp. salt
- 1/8 tsp. ground cayenne pepper
- 1/4 cup canola oil
- 1 cup sugar
- 1 cup low-fat milk or plain soymilk
- 2 eggs
- 1 1/2 tsp. vanilla
- 1/2 cup mini chocolate baking morsels

INSTRUCTIONS:

1. Preheat oven to 350° F. Line 36-count mini muffin tin with muffin cups.
2. Combine flour, cocoa, baking powder, cinnamon, salt and cayenne pepper.
3. With an electric mixer, beat mashed avocado, sugar and canola oil until smooth. Add milk, eggs and vanilla. Stir to combine. Add dry ingredients, mixing on low until combined. Stir in mini chocolate morsels.
4. Divide batter among 36 mini muffin cups. Bake until center resists light pressure, 10 to 12 minutes. Cool on a wire rack.

fresh avocados

LOVE
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heart-healthy • good source of fiber

Avocados are a nutrient-dense, versatile fruit that can be eaten alone or used in a variety of tasty recipes – from spreads to salads to baked goods – all of which can fit into a sensible eating plan.

For more recipes, visit www.LoveOneToday.com.

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