



DOSSIER · SUBSTANCE

Avocado

The avocado is a fruit rich in fat and fibre; in controlled studies, one avocado daily changed mainly the gut microbiota and cholesterol.

1,058

STUDIES IN
TOTAL

84

IN HUMANS

40

OF WHICH
CONTROLLED

85

IN ANIMALS

85

IN THE LAB

Figures from the IHR study database · Last updated 2026-10-23

How to Read This Dossier

ESTABLISHED

measured in humans, with a comparison group

PLAUSIBLE

supported by mechanism, animal studies or observation

HYPOTHESIS

a likely connection that still needs to be tested

Avocado at a Glance

A daily avocado changed the gut microbiota in several controlled studies ²¹²²³⁶³⁹, among other things with more bacteria that break down fibre ²²³⁶³⁹.

Acetate and other short-chain fatty acids in the stool rose with avocado compared with a diet without avocado ²²²³³⁹; a comparison diet with the same amount of oleic acid and fibre had the same effect ³⁹.

Total and LDL cholesterol fell in several meta-analyses compared with a diet without avocado ⁴⁵¹⁰; for triglycerides the findings are mixed ⁴⁸¹⁰⁴⁰.

After a single meal, vascular response ⁴³⁵² and the rise in insulin ⁴³ were more favourable with avocado than without; with daily consumption over months, vascular function and blood pressure did not improve ²⁵²⁶.

We evaluated 76 human studies on Avocado, including 37 randomised controlled trials and 8 meta-analyses or systematic reviews; the controlled studies include 8,241 participants in total. As of 23 October 2026.

1. What Is Avocado? Occurrence, Origin and Forms

The avocado is the fruit of the avocado tree (*Persea americana*) in the laurel family. It is eaten raw and processed into oil, purée and extracts. In human studies it is examined as part of meals, as an oil or as an extract.

The tree grows in tropical and subtropical regions and is cultivated in many parts of the world today. In studies the fruit is part of the diet or is taken as an oil or an extract.

The fruit is harvested; the flesh is eaten fresh or pressed into oil, and extracts can be obtained from the flesh, the peel and the seed. Studies examine fresh fruit flesh, avocado oil and extracts, including dried powder.

Forms and Preparations Studied

- Fresh fruit flesh
- Avocado oil
- Extract from the fruit flesh
- Extract from peel and seed
- Dried powder

Not covered on this page:

- Combination products such as avocado-soy unsaponifiables, in which avocado is only one ingredient among others
- Leaves and bark of the avocado tree
- Other laurel family plants such as bay laurel or cinnamon
- Preparations with further ingredients such as guacamole

2. What Does Avocado Do? Results by Area

AREA	RESULT IN CONTROLLED STUDIES	STRENGTH OF EVIDENCE	STUDIES	PARTICIPANTS
Blood Lipids	mixed	high	6 meta-analyses · 12 controlled · 10 other	3,169
Digestion and Gut Microbiome	mostly improved	high	0 meta-analyses · 5 controlled · 7 other	596
Cardiovascular and Metabolic Health	mostly no difference	low	2 meta-analyses · 18 controlled · 13 other	3,010
Body Weight and Body Composition	mostly no difference	low	3 meta-analyses · 7 controlled · 7 other	1,656
Satiety and Appetite	mixed	low	0 meta-analyses · 4 controlled · 0 other	134
Skin	mostly no difference	unclear	0 meta-analyses · 1 controlled · 0 other	39
Other investigations	mostly no difference	low	0 meta-analyses · 10 controlled · 15 other	2,714

How to read the table: counted are human studies whose results concern the area. “High” means at least one meta-analysis and two controlled studies showing improvement, or at least three controlled studies of which three quarters show improvement, with at least 300 participants in total. “Moderate” means at least two controlled studies showing improvement, as a majority, or one meta-analysis alongside controlled studies. “Low” means one controlled study showing improvement. Where an area has no controlled study, the strength of evidence is at most “low” (result “reviews only” or “observational data

only”). Everything else is “unclear”. A study counts as showing improvement when at least half of its outcomes in this area improved. Reviews of combination products do not count as meta-analyses; results that only describe side effects or shares of users do not count as an effect. The same study is counted only once.

3. What the Studies Show in Detail

Avocado and Blood Lipids: Human Studies

Total and LDL cholesterol fell in several meta-analyses compared with a diet without avocado ⁴⁵¹⁰; another found only a small reduction in total cholesterol, and for LDL only with an elevated baseline value ⁸. In a feeding study, one avocado per day lowered LDL more than a diet with the same fatty acid mixture from oils ³⁸. In the large HAT study, total and LDL cholesterol fell only slightly compared with the usual diet ¹⁵, and the number of LDL particles decreased ¹⁸. For triglycerides, the findings are mixed: one meta-analysis ⁴ and one feeding study in which avocado replaced solid fats and sugar ⁴⁰ found a reduction, while other meta-analyses found no confirmed difference ⁸¹⁰. The evidence is high, but the results are mixed, and many studies tested the exchange of avocado for other fat sources, so part of the effect may be attributable to the changed rest of the diet. Almost always fresh fruit flesh was studied; controlled blood lipid studies with avocado oil are still pending.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
² Escutia-Gutiérrez et al. 2023	meta-analysis · 1,670 participants	Mexican ancestral foods: cocoa, nopal, avocado, common bean; vs. Control group (827 participants)
³ Conceição et al. 2022	systematic review · 657 participants	Avocado (pulp), as used in included trials; vs. Avocado group versus control group
⁴ Peou et al. 2016	meta-analysis · 229 participants	Avocado in the diet (flesh); vs. Avocado-substituted diet vs. control/baseline
⁵ Mostafazadeh et al. 2026	meta-analysis	Avocado (flesh); 140-235 g/day or >250 g/day in dose-response analysis; 4.8-9 weeks or >23 weeks; vs. Control group
⁶ Hamednia et al. 2025	meta-analysis	Avocado products (flesh, oil, extracts); vs. Control groups of the 10 RCTs
⁷ Fleming et al. 2025	review	Avocado in various forms, effects isolable; Interventions 60-300 g/d, observational 0-10 g/d; vs. Comparators varied
⁸ James-Martin et al. 2024	systematic review	Avocado-containing diets (flesh); at least 3 weeks; vs. Control diets with no or low avocado
¹⁰ Okobi et al. 2023	meta-analysis	Avocado diet (fruit flesh); vs. Habitual diet or low-fat diet

Further studies in this area: ^{11 12 15 17 18 27 35 36 37 38 40 43 48 52 54 61 63 69 73 74}

Avocado, Digestion and Gut Microbiome: Human Studies

In adults with overweight, a daily avocado changed the gut flora in several controlled studies ²¹²²³⁶³⁹, bacteria that break down fiber increased ²²³⁶³⁹. The diversity of gut bacteria rose compared with a diet without avocado ²¹²². Acetate and other short-chain fatty acids in the stool rose ²²²³³⁹, but in one study they also rose with a comparison diet containing the same amount of oleic acid and fiber ³⁹. Bile acids in the stool were lower with avocado ²²³⁹. A review supports these findings on the gut microbiota and on fecal metabolites ¹¹. Fresh Hass fruit flesh was studied, usually about one avocado per day against the usual or calorie-matched diet without avocado; the PATH study was co-funded by the Hass Avocado Board ²³. The metabolic pathways of the gut bacteria did not differ between the groups in the HAT study ²¹.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
¹¹ Dreher et al. 2021	review	fresh Hass avocado
²¹ Yang et al. 2025	randomised controlled · 230 participants	One avocado per day (flesh); one avocado per day; 26 weeks; vs. Habitual diet without avocado (HAB)
²² Thompson et al. 2021	randomised controlled · 163 participants	Isocaloric meals with or without avocado; 175 g/d (men), 140 g/d (women); 12 weeks; vs. Isocaloric meals without a

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
²⁹ Thompson et al. 2020	randomised controlled · 109 participants	Fresh Hass avocado in isocaloric meals; 12 weeks, once daily; vs. Isocaloric meals without avocado; manufacturer-
³⁶ Henning et al. 2019	randomised controlled · 51 participants	1 Hass avocado daily; 1 avocado per day; 12 weeks; vs. hypocaloric diet without avocado
³⁹ Sanabria-Véaz et al. 2026	randomised controlled · 43 participants	209 g avocado daily vs. isocaloric snacks; 209 g avocado per day; 3 × 4 weeks, 2-week washouts; vs. Average An
⁵⁴ Cheng et al. 2026	cross-sectional study · 19,086 participants	Avocado, also for sandwich use, guacamole, guacamole with tomatoes; mean intake 67.0 g/day among consumers;
⁶¹ Kris-Etherton et al. 2026	study · 1,008 participants	1 avocado per day; 1 avocado/d; 6 months; vs. habitual dietary intake

Further studies in this area: ^{65 67 70 71}

Avocado, Cardiovascular and Metabolic Health: Human Studies

With daily consumption over months, most cardiovascular and metabolic values remained unchanged; favorable differences appeared mainly directly after a meal. When avocado replaced part of the carbohydrates in breakfast, blood sugar and insulin rose less afterward than after the control meal, and vascular function turned out more favorably ⁴³. With avocado added to a hamburger, the vascular constriction that the hamburger alone triggered did not occur ⁵². Blood pressure remained without a difference from the control with daily consumption ²⁰²⁶⁴⁰. Vascular function and vascular stiffness ²⁵²⁶, liver fat and liver values ¹⁵⁵⁰, as well as insulin sensitivity ²⁸³¹ also remained unchanged. A powder from unripe avocado did not change sugar utilization ³⁴. C-reactive protein, an inflammation marker, fell in one study compared with the control group ³¹, but not in the large HAT study ¹⁵. The evidence for a benefit is low: most of the many randomized studies found no difference with daily consumption; fresh fruit flesh was mostly tested.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
² Escutia-Gutiérrez et al. 2023	meta-analysis · 1,670 participants	Mexican ancestral foods: cocoa, nopal, avocado, common bean; vs. Control group (827 participants)
⁶ Hamednia et al. 2025	meta-analysis	Avocado products (flesh, oil, extracts); vs. Control groups of the 10 RCTs
⁷ Fleming et al. 2025	review	Avocado in various forms, effects isolable; Interventions 60-300 g/d, observational 0-10 g/d; vs. Comparators vari
¹⁰ Okobi et al. 2023	meta-analysis	Avocado diet (fruit flesh); vs. Habitual diet or low-fat diet
¹¹ Dreher et al. 2021	review	fresh Hass avocado
¹² Silva et al. 2017	review	Avocado consumption (flesh); no consensus on amount needed; vs. control without avocado (details not reported)
¹⁵ Lichtenstein et al. 2022	randomised controlled · 1,008 participants	1 large avocado per day added to habitual diet; 1 large avocado per day; 6 months; vs. habitual diet without avocac
¹⁷ Damani et al. 2025	randomised controlled · 969 participants	1 avocado per day (flesh); 1 avocado daily; 26 weeks; vs. Habitual diet group

Further studies in this area: ^{20 25 26 28 31 34 35 36 40 42 43 46 47 48 50 52 53 55 56 66 69 72 73 74 76}

Avocado, Body Weight and Body Composition: Human Studies

For body weight and body composition, there is predominantly no association with the consumption of avocado fruit flesh: several controlled studies found no differences in body weight, body mass index, body fat percentage and visceral fat ³⁸¹⁵²⁰²⁴³¹. Waist circumference also remained without a difference ²⁴⁴⁹; in adolescents, only the ratio of waist to hip circumference decreased with more avocado ⁴⁹. In the PATH study, the ratio of visceral fat to subcutaneous fat decreased with one avocado per day compared with a calorie-matched meal without avocado ²⁸. The Hass Avocado Board funded this study; the large HAT

study found no difference in visceral fat ¹⁵. One review names advantages for weight loss and visceral fat ¹¹; a meta-analysis of controlled studies, by contrast, found no difference in body weight ³. The evidence for a benefit is low; most data concern fresh fruit flesh, while extracts, oil and dried powder are hardly studied for this area.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
² Escutia-Gutiérrez et al. 2023	meta-analysis · 1,670 participants	Mexican ancestral foods: cocoa, nopal, avocado, common bean; vs. Control group (827 participants)
³ Conceição et al. 2022	systematic review · 657 participants	Avocado (pulp), as used in included trials; vs. Avocado group versus control group
⁶ Hamednia et al. 2025	meta-analysis	Avocado products (flesh, oil, extracts); vs. Control groups of the 10 RCTs
⁷ Fleming et al. 2025	review	Avocado in various forms, effects isolable; Interventions 60-300 g/d, observational 0-10 g/d; vs. Comparators vari
⁸ James-Martin et al. 2024	systematic review	Avocado-containing diets (flesh); at least 3 weeks; vs. Control diets with no or low avocado
¹¹ Dreher et al. 2021	review	fresh Hass avocado
¹⁵ Lichtenstein et al. 2022	randomised controlled · 1,008 participants	1 large avocado per day added to habitual diet; 1 large avocado per day; 6 months; vs. habitual diet without avocac
²⁰ Allen et al. 2023	randomised controlled · 235 participants	Avocados (fruit flesh); 14 avocados/family/week vs. 3 avocados/family/week; 6 months (2-week run-in); vs. Interv

Further studies in this area: [24](#) [28](#) [31](#) [36](#) [49](#) [61](#) [64](#) [69](#) [75](#)

Avocado, Satiety and Appetite: Human Studies

When a whole avocado replaced part of the carbohydrates in breakfast, hunger afterward was more strongly suppressed and satiety was greater than after a low-fat meal of the same energy; the satiety hormones PYY and GLP-1 increased more ⁴². When half an avocado was eaten in addition to lunch, participants were more satisfied and had less desire to eat; however, this meal also contained more energy, which may explain the difference ⁴⁶. In the same study, the satiety hormone GLP-1 was lower after this meal ⁴⁵. However, the strength of evidence is low: these are four randomized controlled studies with a total of 134 participants, mostly adults with overweight, and the findings are mixed. Only fresh fruit flesh was studied; for avocado oil, extracts, or dried powder, no controlled data are available in this area.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
³⁶ Henning et al. 2019	randomised controlled · 51 participants	1 Hass avocado daily; 1 avocado per day; 12 weeks; vs. hypocaloric diet without avocado
⁴² Zhu et al. 2019	randomised controlled · 31 participants	breakfast meal with avocado flesh; 68 g (HA) or 136 g (WA) avocado; single meal, 6-h measurement; vs. low-fat control
⁴⁵ Haddad et al. 2018	randomised controlled · 26 participants	Hass avocado in lunch test meals; three test meals one week apart; vs. avocado-free control vs isoenergetic avocado m
⁴⁶ Wien et al. 2013	randomised controlled · 26 participants	About half a Hass avocado, included in or added to the lunch meal; about half a Hass avocado (112 kcal extra in AA); sing

Avocado and Skin: Human Studies

In a randomized pilot study with healthy women with overweight, with one avocado daily, forehead skin firmness increased compared with usual diet; elasticity increased only compared with baseline ⁴¹. For skin moisture, pigmentation, sebum, and UVB resistance, the same study showed no difference from continued usual diet ⁴¹. The strength of evidence is unclear because only a single small study exists; a larger replication, including at other skin sites, is still pending. Only fresh fruit flesh was studied; for avocado oil, extracts, or dried powder, no controlled findings are available in this area.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON	RESULT
⁴¹ Henning et al. 2022	randomised controlled · 39 participants	One avocado daily (fresh fruit flesh); one avocado daily; 8 weeks; vs. continued habitual diet	forehead skin elasticity:

Avocado: Further Outcomes in Studies

In the PATH study, a daily meal with avocado improved accuracy in an attention test compared with a meal without avocado ³²³³. In the large HAT study, by contrast, one avocado daily did not change cognitive performance ¹⁹, nor did a single avocado meal ⁴⁴. In older adults, memory improved with avocado as in the comparison group with potato or chickpeas ⁵¹. In the HAT study, the overall score for cardiovascular health remained unchanged, while the subscores for sleep and blood lipids improved compared with usual diet ¹⁷. In families that received plenty of avocado, the adults moved more than in comparison families with little avocado ²⁰. In a randomized study on gastric ulcers, the mucosa healed better when an aqueous extract from the avocado pit was added to standard treatment; antibodies against Helicobacter pylori also decreased more ³⁰.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
¹ Fortini et al. 2026	systematic review · 2,438 participants	Avocado pulp, freeze-dried pulp flour, skin powder, ASU; 68 to 489 g pulp acutely; 300 mg/d ASU chronically; ac
⁹ Collignon et al. 2024	review	Avocado products and phytochemicals (avocatin-B, persin, PaDef defensin)
¹¹ Dreher et al. 2021	review	fresh Hass avocado
¹⁵ Lichtenstein et al. 2022	randomised controlled · 1,008 participants	1 large avocado per day added to habitual diet; 1 large avocado per day; 6 months; vs. habitual diet without avocac
¹⁷ Damani et al. 2025	randomised controlled · 969 participants	1 avocado per day (flesh); 1 avocado daily; 26 weeks; vs. Habitual diet group
¹⁹ Lee et al. 2026	randomised controlled · 241 participants	One avocado per day (fresh fruit flesh); 1 avocado per day; 6 months; vs. Avocado avoidance (CON) without additi
²⁰ Allen et al. 2023	randomised controlled · 235 participants	Avocados (fruit flesh); 14 avocados/family/week vs. 3 avocados/family/week; 6 months (2-week run-in); vs. Interv
³⁰ Sultan et al. 2026	randomised controlled · 99 participants	aqueous extract of avocado seeds; 12 weeks; vs. standard medication alone

Further studies in this area: [32](#) [36](#) [44](#) [50](#) [51](#) [54](#) [57](#) [58](#) [59](#) [60](#) [61](#) [62](#) [63](#) [64](#) [68](#) [69](#) [72](#)

4. How Is Avocado Dosed? Preparation, Dose and Duration in Studies

The studies used predominantly fresh avocado fruit flesh, mostly as a daily avocado in addition to the usual diet or as an isocaloric meal. Preparations were tested less often: a powder from unripe avocado ³⁴, fruit flesh in capsules ⁴⁷ and an aqueous extract from the avocado seed in gastric ulcers ³⁰.

PREPARATION OR FORM	DOSE	DURATION	STUDY
1 large avocado (168 g) daily	168 g per day	6 months	¹³
One avocado per day added to usual diet	1 avocado per day	26 weeks	¹⁴
1 large avocado per day added to habitual diet	1 large avocado per day	6 months	¹⁵
1 avocado per day added to usual diet	1 avocado/day	6 months	¹⁶
1 avocado per day (flesh)	1 avocado daily	26 weeks	¹⁷
1 avocado per day added to habitual diet	1 avocado per day	26 weeks	¹⁸
One avocado per day (fresh fruit flesh)	1 avocado per day	6 months	¹⁹
Avocados (fruit flesh)	14 avocados/family/week vs. 3 avocados/family/week	6 months (2-week run-in)	²⁰
One avocado per day (flesh)	one avocado per day	26 weeks	²¹
Isocaloric meals with or without avocado	175 g/d (men), 140 g/d (women)	12 weeks	²²

PREPARATION OR FORM	DOSE	DURATION	STUDY
One avocado per day (~2.2 servings)	1 avocado/day (~2.2 servings)	6 months	24
1 avocado per day added to habitual diet	1 avocado per day	6 months	25
1 avocado per day (fresh fruit flesh)	1 avocado/day	6 months	26
Daily isocaloric meal with standardized avocado	Men 175 g, women 140 g daily	12 weeks	27
Daily meal with one fresh Hass avocado	one fresh avocado per day	3 months	28

5. Is Avocado Safe? Side Effects in Studies

No serious adverse effects were reported in the studies. Avocatin B, a fat substance obtained from the avocado, was well tolerated in a safety study in humans, without dose-limiting toxicity [72](#). In a study with plenty of avocado for whole families, there were no unfavourable changes in BMI or blood pressure [20](#).

STUDY	REPORTED SIDE EFFECTS
20 Allen et al. 2023	No adverse changes in BMI or blood pressure reported
39 Sanabria-Véaz et al. 2026	GI tolerance symptoms assessed, no results reported
72 Ahmed et al. 2019	well tolerated, no dose-limiting toxicity
74 Tramontin et al. 2020	no side effects reported

6. What Remains Open: Limits of the Evidence

- Many studies tested the exchange of avocado for other fat sources, so that part of the effect may be attributable to the changed rest of the diet.
- Several studies were co-funded by the Hass Avocado Board, an association of the avocado industry; their findings need independent replication [2326283344](#).
- Preparations such as seed extract or powder from unripe avocado have only been tested in individual studies; larger replications are still pending [3034](#).
- The positive marker findings for cardiovascular and metabolic outcomes are isolated; whether they translate into clinical endpoints is open.
- Satiety and skin have only been investigated in a few small studies [414246](#).

7. Bottom Line: What Is Established About Avocado

In controlled studies, the avocado was tested primarily as fresh fruit flesh, usually one fruit per day. The most consistent change was in the gut flora: the diversity of gut bacteria increased [2122](#), and acetate in the stool rose [2239](#). Total and LDL cholesterol fell in several meta-analyses [4510](#). In a feeding study, one avocado per day lowered LDL more than a diet with the same fatty acid mixture from oils [38](#). Blood pressure, blood sugar, liver values and vascular function remained without a difference from the usual diet with daily consumption over months [15252650](#). For body weight and body composition, there was predominantly no effect [3815202431](#). The evidence is high for blood lipids and gut flora; for cardiovascular health, weight and satiety, it is low for a benefit. Many studies tested the exchange against other fat sources, and some were manufacturer-funded.

Frequently Asked Questions

How well has Avocado been studied in humans?

We evaluated 76 human studies on Avocado, including 37 randomised controlled trials and 8 meta-analyses or systematic reviews; the controlled studies include 8,241 participants in total. As of 23 October 2026.

Does Avocado help with blood Lipids? What the studies show

We evaluated 6 meta-analyses or systematic reviews, 12 controlled studies and 10 further studies; the controlled studies include 3,169 participants in total. Result of the controlled studies: mixed. Strength of evidence under our published rules: high. Sources: [2345](#)

Does Avocado help with digestion and Gut Microbiome? What the studies show

We evaluated 5 controlled studies and 7 further studies; the controlled studies include 596 participants in total. Result of the controlled studies: mostly improved. Strength of evidence under our published rules: high. Sources: [11212229](#)

Does Avocado help with cardiovascular and Metabolic Health? What the studies show

We evaluated 2 meta-analyses or systematic reviews, 18 controlled studies and 13 further studies; the controlled studies include 3,010 participants in total. Result of the controlled studies: mostly no difference. Strength of evidence under our published rules: low. Sources: [26710](#)

Does Avocado help with body Weight and Body Composition? What the studies show

We evaluated 3 meta-analyses or systematic reviews, 7 controlled studies and 7 further studies; the controlled studies include 1,656 participants in total. Result of the controlled studies: mostly no difference. Strength of evidence under our published rules: low. Sources: [2367](#)

Does Avocado help with satiety and Appetite? What the studies show

We evaluated 4 controlled studies; the controlled studies include 134 participants in total. Result of the controlled studies: mixed. Strength of evidence under our published rules: low. Sources: [36424546](#)

Does Avocado help with skin? What the studies show

We evaluated one controlled study; the controlled studies include 39 participants in total. Result of the controlled studies: mostly no difference. Strength of evidence under our published rules: unclear. Sources: [41](#)

Which forms of avocado were investigated in the studies?

Most studies used fresh avocado fruit flesh, often as a daily avocado in addition to the usual diet or in isocaloric meals. Preparations were tested less often: a powder from unripe avocado [34](#), fruit flesh in capsules [47](#) and an aqueous extract from the avocado seed in gastric ulcers [30](#).

Do human studies show an effect on the gut microbiota?

Yes, several controlled studies found changes in the gut microbiota [21223639](#), among other things more bacteria that break down fibre [223639](#). The diversity of gut bacteria increased [2122](#), and acetate in the stool rose [2239](#); a comparison diet with the same amount of oleic acid and fibre raised acetate as well [39](#). Several studies were co-funded by the Hass Avocado Board, an association of the avocado industry; their findings need independent replication [2326283344](#).

Does the avocado influence blood lipids?

Yes, total and LDL cholesterol fell in several meta-analyses compared with a diet without avocado [4510](#). For triglycerides the findings are mixed: some studies found a reduction [440](#), others no confirmed difference [8102736](#). Many studies tested the exchange of avocado for other fat sources, so that part of the effect may be attributable to the changed rest of the diet.

Does the avocado help with weight loss?

For body weight and body composition, several controlled studies found predominantly no difference [3815202431](#). A study funded by the Hass Avocado Board found less visceral fat in relation to subcutaneous fat [28](#); the large HAT study did not confirm this for visceral fat [15](#).

Is consuming avocado safe?

No serious adverse effects were reported in the studies. Avocatin B, a fat substance obtained from the avocado, was well tolerated in a safety study in humans, without dose-limiting toxicity [72](#). In a study with plenty of avocado for whole families, there were no unfavourable changes in BMI or blood pressure [20](#).

Sources

- 1 Effects of Avocado (Persea americana) Fruit and Byproducts on Molecular Pathways Related to Oxi-inflammation: A Systematic Review of Randomized Clinical Trials
Fortini TVL, Ribeiro MGC, Cândido FG, Rocha DMUP, Hermsdorff HHM · 2026
- 2 Mexican Ancestral Foods (Theobroma cacao, Opuntia ficus indica, Persea americana and Phaseolus vulgaris) Supplementation on Anthropometric, Lipid and Glycemic Control Variables in Obese Patients: A Systematic Review and Meta-Analysis
Escutia-Gutiérrez R, Sandoval-Rodríguez A, Galicia-Moreno M, Rosas-Campos R, Almeida-López M, Santos A et al. · 2023
- 3 Can avocado intake improve weight loss in adults with excess weight? A systematic review and meta-analysis of randomized controlled trials
Conceição AR, Fraiz GM, Rocha DMUP, Bressan J · 2022
- 4 Impact of avocado-enriched diets on plasma lipoproteins: A meta-analysis
Peou S, Milliard-Hasting B, Shah SA · 2016
- 5 Exploring the effect of avocado on lipid profile modulation: a systematic review and dose-response and meta-analysis of clinical trials
Mostafazadeh P, Etesamnia S, Nasiraei-Moghadam M, Jahan-Mihan A, Haghighi A, Zendedel A et al. · 2026
- 6 Effects of Avocado Products on Cardiovascular Risk Factors in Adults: A GRADE-Assessed Systematic Review and Meta-Analysis
Hamednia S, Shouhani Z, Tavakol S, Montazeri N, Amir Khan-Dehkordi M, Karimi MA et al. · 2025
- 7 Exploring avocado consumption and health: a scoping review and evidence map
Fleming SA, Paul TL, Fleming RAF, Ventura AK, McCrory MA, Whisner CM et al. · 2025
- 8 Avocado Consumption and Cardiometabolic Health: A Systematic Review and Meta-Analysis
James-Martin G, Brooker PG, Hendrie GA, Stonehouse W · 2024
- 9 Avocado (&l&t;Persea americana&l&t;Mill) and its phytoconstituents: potential for cancer prevention and intervention
Collignon TE, Webber K, Piasecki J, Rahman ASW, Mondal A, Barbalho SM et al. · 2024
- 10 Effect of Avocado Consumption on Risk Factors of Cardiovascular Diseases: A Systematic Review and Meta-Analysis
Okobi OE, Odoma VA, Okunromade O, Louise-Oluwasanmi O, Itua B, Ndubuisi C et al. · 2023
- 11 A Comprehensive Review of Hass Avocado Clinical Trials, Observational Studies, and Biological Mechanisms
Dreher ML, Cheng FW, Ford NA · 2021
- 12 Mechanisms involved in the cardioprotective effect of avocado consumption: A systematic review
Silva Caldas AP, Chaves LO, Linares Da Silva L, Morais DdC, Gonçalves Alfenas RdC · 2017
- 13 The Effect of Including 1 Avocado Daily in a Habitual Diet on the Glycemic Index and Glycemic Load in Free-Living Adults with Overweight/Obesity
LeBeau K, Segovia-Siappo G, Heskey C, Clarke A, Oda K, Sirirat R et al. · 2026
- 14 One Avocado per Day as Part of Usual Intake Improves Diet Quality: Exploratory Results from a Randomized Controlled Trial
Petersen KS, Smith S, Lichtenstein AH, Matthan NR, Li Z, Sabate J et al. · 2024
- 15 Effect of Incorporating 1 Avocado Per Day Versus Habitual Diet on Visceral Adiposity: A Randomized Trial
Lichtenstein AH, Kris-Etherton PM, Petersen KS, Matthan NR, Barnes S, Vitolins MZ et al. · 2022
- 16 Effect of daily avocado consumption for 6 mo compared with habitual diet on red blood cell fatty acid profiles and association with cardiometabolic risk factors in individuals with abdominal obesity: a randomized trial
Matthan NR, Lovato L, Petersen KS, Kris-Etherton PM, Sabate J, Rajaram S et al. · 2024
- 17 Effect of Daily Avocado Intake on Cardiovascular Health Assessed by Life's Essential 8: An Ancillary Study of HAT, a Randomized Controlled Trial
Damani JJ, Kris-Etherton PM, Lichtenstein AH, Matthan NR, Sabaté J, Li Z et al. · 2025
- 18 Effect of incorporating 1 avocado per day on lipoprotein particle concentrations compared to habitual intake in adults with abdominal obesity: An ancillary study of the Habitual Diet and Avocado Trial, a randomized controlled trial
Damani JJ, Kris-Etherton PM, Matthan NR, Li Z, Sabaté J, Reboussin DM et al. · 2026
- 19 Effects of one avocado a day for six months on cognitive performance in overweight adults: A randomized controlled trial
Lee GJ, Morrell HER, Adams M, Sabaté J, Reboussin DM, Kris-Etherton PM et al. · 2026
- 20 Nutritional Avocado Intervention Improves Physical Activity Measures in Hispanic/Latino Families: A Cluster RCT
Allen TS, Doede AL, King CMB, Pacheco LS, Talavera GA, Denenberg JO et al. · 2023
- 21 Impact of daily avocado consumption on gut microbiota in adults with abdominal obesity: an ancillary study of HAT, a randomized controlled trial
Yang J, Lei OK, Bhute S, Kris-Etherton PM, Lichtenstein AH, Matthan NR et al. · 2025
- 22 Avocado Consumption Alters Gastrointestinal Bacteria Abundance and Microbial Metabolite Concentrations among Adults with Overweight or Obesity: A Randomized Controlled Trial
Thompson SV, Bailey MA, Taylor AM, Kaczmarek JL, Mysonhimer AR, Edwards CG et al. · 2021
- 23 Effects of Avocado Consumption on Gastrointestinal Microbial Metabolite Concentrations and Taxa Abundances: A Randomized, Controlled Trial (OR23-07-19)
Thompson S, Edwards C, Reeser G, Khan N, Holscher H · 2019
- 24 Adherence and Body Weight with Daily Avocado Consumption Among Latina Women of the Habitual Diet and Avocado Trial (HAT)
Luong TQ, Adeyemo MA, Kris-Etherton PM, Lichtenstein AH, Matthan NR, Petersen KS et al. · 2025
- 25 Effect of Incorporating 1 Avocado per Day Versus Habitual Diet on Vascular Function in Adults With Abdominal Obesity: An Ancillary Study of HAT, a Randomized Controlled Trial
Davis KM, Petersen KS, Matthan NR, Legro RS, Kris-Etherton PM · 2024
- 26 Effect of Daily Avocado Consumption on Vascular Health in Adults With Abdominal Obesity: A Sub-Study of the Habitual Diet and Avocado Trial, a Randomized Controlled Study · 2021
- 27 Single Nucleotide Polymorphisms Related to Lipoprotein Metabolism Are Associated with Blood Lipid Changes following Regular Avocado Intake in a Randomized Control Trial among Adults with Overweight and Obesity
Hannon BA, Edwards CG, Thompson SV, Reeser GE, Burd NA, Holscher HD et al. · 2020
- 28 Effects of Avocado Consumption on Abdominal Adiposity and Glucose Tolerance: Findings from the Persea Americana for Total Health (PATH) Randomized Controlled Trial (P21-005-19)
Khan N, Edwards C, Thompson S, Burke S, Walk A, Reeser G et al. · 2019
- 29 The Impact of Fresh Hass Avocado on the Fecal Metabolome Among Adults with Overweight and Obesity: A Randomized, Controlled Trial
Thompson S, Pan Z, Edwards C, Reeser G, Khan N, Holscher H · 2020
- 30 Characterization of avocado seeds aqueous extract and its therapeutic effects on gastric ulcer
Sultan A, Akhtar MN, Khalil AA, Jameel F, Ballal S, Singh A et al. · 2026
- 31 Avocado Consumption for 12 Weeks and Cardiometabolic Risk Factors: A Randomized Controlled Trial in Adults with Overweight or Obesity and Insulin Resistance
Zhang X, Xiao D, Guzman G, Edirisinghe I, Burton-Freeman B · 2022
- 32 Effects of 12-week avocado consumption on cognitive function among adults with overweight and obesity
Edwards CG, Walk AM, Thompson SV, Reeser GE, Erdman JW, Burd NA et al. · 2020
- 33 Effects of a 12-week Avocado Randomized-controlled Trial on Cognitive Function and Lutein Status Among Adults with Overweight and Obesity (OR05-01-19)
Edwards C, Walk A, Thompson S, Reeser G, Erdman J, Burd N et al. · 2019
- 34 Effects of an Unripe Avocado Extract on Glycaemic Control in Individuals with Obesity: A Double-Blinded, Parallel, Randomised Clinical Trial
Zhao L, Ingram DK, Gumprecht E, De Paoli T, Teong XT, Liu B et al. · 2023
- 35 Using the Avocado as an Evening Snack to Investigate Whole Food Matrix and Macronutrient Composition on Morning Metabolic Indices in Adults With Prediabetes
Preiss C, Marquis O, Edirisinghe I, Burton-Freeman BM · 2025
- 36 Hass Avocado Inclusion in a Weight-Loss Diet Supported Weight Loss and Altered Gut Microbiota: A 12-Week Randomized, Parallel-Controlled Trial
Henning SM, Yang J, Woo SL, Lee RP, Huang J, Rasmussen A et al. · 2019
- 37 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
Wang L, Tao L, Hao L, Stanley TH, Huang KH, Lambert JD et al. · 2020
- 38 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
Wang L, Bordi PL, Fleming JA, Hill AM, Kris-Etherton PM · 2015
- 39 Persea americana for Total Health (PATH-2): Effects of Avocado Consumption on Gastrointestinal Health in a Randomized, Crossover, Complete Feeding Trial
Sanabria-Véaz MG, Holthaus TA, Oleksiak M, Revilla D, Alvarado DA, Pérez-Tamayo M et al. · 2026
- 40 Effects of replacing solid fats and added sugars with avocado in adults with elevated cardiometabolic risk: a randomized, double-blind, controlled feeding, crossover trial
Gletsu-Miller N, Wilcox ML, Spence LA, Wright AJ, Guarnieri LL, Nadeem MM et al. · 2026
- 41 Avocado Consumption Increased Skin Elasticity and Firmness in Women - A Pilot Study
Henning SM, Guzman JB, Thames G, Yang J, Tseng CH, Heber D et al. · 2022
- 42 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
Zhu L, Huang Y, Edirisinghe I, Park E, Burton-Freeman B · 2019
- 43 Avocado Fruit on Postprandial Markers of Cardio-Metabolic Risk: A Randomized Controlled Dose Response Trial in Overweight and Obese Men and Women
Park E, Edirisinghe I, Burton-Freeman B · 2018
- 44 Acute Effects of Avocado Consumption on Cognition: Preliminary Results
Adams M, Rajaram S, Lee G, Rice D, Kaur A, Millham B et al. · 2020
- 45 Postprandial gut hormone responses to Hass avocado meals and their association with visual analog scores in overweight adults: A randomized 3×3 crossover trial
Haddad E, Wien M, Oda K, Sabaté J · 2018
- 46 A randomized 3×3 crossover study to evaluate the effect of Hass avocado intake on post-ingestive satiety, glucose and insulin levels, and subsequent energy intake in overweight adults
Wien M, Haddad E, Oda K, Sabaté J · 2013
- 47 Avocado (Persea americana) pulp improves cardiovascular and autonomic recovery following submaximal running: a crossover, randomized, double-blind and placebo-controlled trial
Sousa FH, Valenti VE, Pereira LC, Bueno RR, Prates S, Akimoto AN et al. · 2020
- 48 Postprandial oxidative stress is increased after a phytonutrient-poor food but not after a kilojoule-matched phytonutrient-rich food
Khor A, Grant R, Tung C, Guest J, Pope B, Morris M et al. · 2014
- 49 The impact of avocado intake on anthropometric measures among Hispanic/Latino children and adolescents: A cluster randomized controlled trial
VanEvery H, Pacheco LS, Sun E, Allison MA, Gao X · 2023
- 50 Changes in Biomarkers of Non-Alcoholic Fatty Liver Disease (NAFLD) upon Access to Avocados in Hispanic/Latino Adults: Secondary Data Analysis of a Cluster Randomized Controlled Trial
Pacheco LS, Bradley RD, Anderson CAM, Allison MA · 2022
- 51 Avocado Consumption Increases Macular Pigment Density in Older Adults: A Randomized, Controlled Trial
Scott TM, Rasmussen HM, Chen Q, Johnson EJ · 2017
- 52 Hass avocado modulates postprandial vascular reactivity and postprandial inflammatory responses to a hamburger meal in healthy volunteers
Li Z, Wong A, Henning SM, Zhang Y, Jones A, Zerlin A et al. · 2013
- 53 Association Between Avocado Consumption and Diabetes in Mexican Adults: Results From the 2012, 2016, and 2018 Mexican National Health and Nutrition Surveys
Cheng FW, Rodríguez-Ramírez S, Shamah-Levy T, Pérez-Tepayo S, Ford NA · 2025
- 54 Avocado Consumption Patterns and Nutrient Contribution in the US: National Health and Nutrition Examination Survey 2017-March 2020 and August 2021-August 2023
Cheng FW, Morton S, McCrory MA, Moshfegh AJ, Ford NA · 2026

- 55 Associations between avocado intake and measures of glucose and insulin homeostasis in Hispanic individuals with and without type 2 diabetes: Results from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL)
Senn MK, Goodarzi MO, Ramesh G, Allison MA, Graff M, Young KL et al. · 2023
- 56 Associations between Avocado Intake and Lower Rates of Incident Type 2 Diabetes in US Adults with Hispanic/Latino Ancestry
Wood AC, Senn MK, Rotter JI · 2023
- 57 Avocado consumption and markers of inflammation: results from the Multi-Ethnic Study of Atherosclerosis (MESA)
Cheng FW, Ford NA, Wood AC, Tracy R · 2023
- 58 US Older Adults That Consume Avocado or Guacamole Have Better Cognition Than Non-consumers: National Health and Nutrition Examination Survey 2011-2014
Cheng FW, Ford NA, Taylor MK · 2021
- 59 Avocado consumption during pregnancy linked to lower child food allergy risk: prospective KuBiCo study
Cheng FW, Bauer E, Ford NA, Backman K, Voutilainen R, Pasanen M et al. · 2026
- 60 Avocado consumption during pregnancy is associated with child's lower food allergy risk in the prospective KuBiCo study
Cheng FW, Bauer E, Ford NA, Backman K, Voutilainen R, Pasanen M et al. · 2024
- 61 The Habitual Diet and Avocado Trial (HAT): A Collaborative Multicenter Model for Large-Scale, Privately Funded Nutrition Research Consortia
Kris-Etherton PM, Li Z, Matthan NR, Rajaram S, Sabaté J, Reboussin DM et al. · 2026
- 62 Identifying usual food choices with avocados in a clinical trial cohort of overweight and obese adults in Australia
Guan VX, Neale EP, Probst YC · 2023
- 63 Avocado Intake Among Adolescents Is Associated with Higher Diet Quality and Healthier Dietary Intake
· 2022
- 64 Associations between Avocado Consumption and Diet Quality, Dietary Intake, Measures of Obesity and Body Composition in Adolescents: The Teen Food and Development Study
Segovia-Siapco G, Paalanen M, Oda K, Pribis P, Sabaté J · 2021
- 65 Fecal Bacteria as Biomarkers for Predicting Food Intake in Healthy Adults
Shinn LM, Li Y, Mansharamani A, Auvil LS, Welge ME, Bushell C et al. · 2021
- 66 The association between visceral adipose tissue, hyperuricemia, and hepatic fat deposition: a post-hoc analysis from the Habitual Diet vs. Avocado randomized control trial
FitzGerald J, Yang J, Elashoff D, Li Z · 2026
- 67 Applying Machine-Learning to Human Gastrointestinal Microbial Species to Predict Dietary Intake (P20-040-19)
Shinn L, Li Y, Zhu R, Mansharamani A, Auvil L, Welge M et al. · 2019
- 68 The Assessment of Energy Content and Density of a Self-Selected Meal with and without Avocado
· 2022
- 69 Serum Metabolite Profiles in Adults With Abdominal Obesity in Response to Consuming 1 Avocado Daily for 6 Months: An Exploratory Analysis
Matthan NR, Duscova E, Matuszek G, Zhang W, Kris-Etherton PM, Petersen KS et al. · 2026
- 70 Fecal Metagenomics to Identify Biomarkers of Food Intake in Healthy Adults: Findings from Randomized, Controlled, Nutrition Trials
Shinn LM, Mansharamani A, Baer DJ, Novotny JA, Charron CS, Khan NA et al. · 2024
- 71 Fecal Metabolites as Biomarkers for Predicting Food Intake by Healthy Adults
Shinn LM, Mansharamani A, Baer DJ, Novotny JA, Charron CS, Khan NA et al. · 2023
- 72 Avocatin B Protects Against Lipotoxicity and Improves Insulin Sensitivity in Diet-Induced Obesity
Ahmed N, Tcheng M, Roma A, Buraczynski M, Jayanth P, Rea K et al. · 2019
- 73 Avocado Oil: Recent Advances in Its Anti-diabetic Potential
Drakpa D, Paul T, Chakrabarty S, Jigdel K, Mukherjee P, Gupta J · 2025
- 74 Ginger and avocado as nutraceuticals for obesity and its comorbidities
Tramontin NDS, Luciano TF, Marques SO, de Souza CT, Muller AP · 2020
- 75 Functional Foods and Bioactive Compounds: A Review of Its Possible Role on Weight Management and Obesity's Metabolic Consequences
Konstantinidi M, Koutelidakis AE · 2019
- 76 Fruits for Prevention and Treatment of Cardiovascular Diseases
Zhao CN, Meng X, Li Y, Li S, Liu Q, Tang GY et al. · 2017

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