



Avocado is well known for its healthy fats but there is so much more nutrition in this gorgeous green fruit - vitamins, minerals and antioxidants - all essential for good health. Avocado helps boost nutrient absorption too.

NUTRIENT-RICH AVOCADOS

We know avocado eaters tend to consume significantly more of key nutrients than non-avocado eaters.¹ That's in part because avocados are nutrient-dense.

A quarter of an avocado - just 50g - contains:

- ✓ healthy fats and dietary fibre
- ✓ folate, niacin and pantothenic acid
- ✓ vitamins C, E and K
- ✓ potassium
- ✓ polyphenol antioxidants
- ✓ colourful antioxidant carotenoids - beta carotene, cryptoxanthin, lutein and zeaxanthin

WHY DO WE NEED...

Healthy Fats

Monounsaturated fats help maintain heart health and aid in the body's absorption of fat-soluble vitamins such as vitamin E and carotenoids.^{2,3}

Dietary fibre

Fibre is good for gut health and helps keep us regular.⁴ Avocado contains around 2.5g of fibre per 50g serve, and both soluble and insoluble fibre.

Vitamins

Folate

This B group vitamin folate is needed for brain function, a healthy immune system, normal blood formation and supports healthy pregnancy.⁴ A 50g serve of avocado provides 30ug or 15% of RDI.

Vitamin C

Antioxidant vitamin C works with vitamin E to help reduce the effects of free radical cell damage.⁵ Vitamin C is essential for boosting plant (non-haem) iron absorption, building strong bones

and teeth, healthy gums and skin, a healthy immune system and brain function.⁴ Avocado contains about 6mg of Vitamin C or 14% of RDI for adults.

Vitamin E

Vitamin E is a fat-soluble antioxidant vitamin⁴ commonly found in foods with healthy fats including avocado. A quarter of an avocado (50g) provides 1mg of vitamin E or 10% of RDI for adults.

Vitamin K

Vitamin K helps build bones and assists with blood clotting.⁴ A 50g serve of avocado contains 11ug of vitamin K or 14% of the RDI for adults.

Niacin and Pantothenic acid

Avocado is an energy booster and fatigue fighter. It contains niacin to help release energy from food and pantothenic acid needed for fat metabolism.⁴ Avocado contains over 10% of the RDI for each nutrient.

Potassium and sodium

A healthy, varied diet low in sodium helps to maintain normal blood pressure⁴ and higher potassium intake reduces the risk of heart disease and stroke.⁶ Avocado contributes to a good sodium/potassium balance, with a quarter of an avocado providing just 2mg of sodium and 255mg of potassium.

Phytochemicals

Avocado contains phytochemicals with antioxidant and anti-inflammatory properties. These include polyphenols and colourful carotenoids such as beta carotene, cryptoxanthin, lutein and zeaxanthin that help give avocado its unique colour. These natural antioxidants contribute to cell protection from free radical damage.

LATEST AVOCADO RESEARCH: THE EYES HAVE IT

The latest research supports the nutrient boosting benefits of avocado for eye health. The macula lutea in the centre of the retina is responsible for central vision and is yellow in colour because it contains carotenoid pigments lutein and zeaxanthin. These pigments are found in avocado⁹ and avocado consumption has been found to boost macula pigment.¹⁰ Higher carotenoid status is also associated with a reduced risk of macular degeneration.^{7,8} Interestingly carotenoids are transported to the eye via HDL cholesterol^{11,12} and avocado also boosts HDL.¹³

AVOCADOS BOOST NUTRIENT ABSORPTION

The healthy fats in avocado don't just look after the heart, evidence is building they boost nutrient absorption as well. Avocado enhances the absorption of carotenoids (provitamin A) and enhances their conversion to vitamin A needed for vision.¹⁵

For example:

- Adding 75g-150g of monounsaturated fat-rich avocados to salads and salsa increases carotenoid absorption fivefold.¹⁴
- Avocado enhances beta carotene absorption from tomatoes 2.4-fold and enhances vitamin A conversion efficiency 4.6 fold and
- Avocado enhances beta carotene absorption 6 fold and vitamin A conversion efficiency 2.6 fold from carrots.¹⁶

5 TIPS TO NUTRIENT BOOST YOUR FAVOURITE MEALS BY ADDING AVO:

1. Mix avocado into scrambled eggs or use in place of mayo for egg sandwiches
<http://australianavocados.com.au/recipes/avocado-scrambled-egg-wraps>
2. Reduce the inflammatory impact of meals by adding avocado¹⁷
<http://australianavocados.com.au/recipes/lamb-burger-avocado-and-chilli-jam>
3. Absorb more colourful antioxidant pigments from salad vegetables by adding avo¹⁵
<http://australianavocados.com.au/recipes/avocado-watermelon-salad>
4. Add a nutrient boost to green smoothies with avocado
<http://australianavocados.com.au/recipes/avocado-smoothie>
5. Make sweet treats healthier using avocado- chocolate mousse anyone?
<http://australianavocados.com.au/recipes/avocado-chocolate-mousse>

Check out more delicious recipes at australianavocados.com.au



NUTRITION INFORMATION

Servings per package: 4 serves per avocado
 Serving size: 50g or 1/4 avocado

	Average Quantity per Serving	Average Quantity per 100g
Energy	430kJ (102Cal)	860kJ (205Cal)
Protein, total	1.0g	2.0g
Fat, total	10.7g	21.4g
– saturated	2.4g	4.8g
– trans	0g	0g
– polyunsaturated	1.4g	2.7g
– monounsaturated	7.4g	12.8g
Carbohydrate	<1g	<1g
– sugars	<1g	<1g
Dietary fibre, total	2.5g	5.0g
Sodium	2mg	4mg
Potassium	255mg	509mg
Niacin	1.2mg eq (12% RDI)	2.4mg eq
Pantothenic acid	0.7mg (14% RDI)	1.4mg
Folate	30ug DFE (15% RDI)	59ug DFE
Vitamin C	5.5mg (14% RDI)	11mg
Vitamin E	1mg (10% RDI)	2mg
Vitamin K	11ug (14% RDI)	21ug
Polyphenols	71mg GAE	142mg GAE
Beta carotene	14ug	27ug
Cryptoxanthin	59ug	117ug
Lutein & zeaxanthin	136ug	271ug

REFERENCES

- Fulgoni VL 3rd, Dreher M, Davenport AJ. 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. *Nutr J*. 2013 Jan 2;12:1. Doi: 10.1186/1475-2891-12-1. <https://www.ncbi.nlm.nih.gov/pubmed/23282226>
- Schwingshackl L et al. Monounsaturated fatty acids and risk of cardiovascular disease: synopsis of the evidence available from systematic reviews and meta-analyses. *Nutrients*. 2012 Dec 11;4(12):1989-2007. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546618/>
- Dreher ML et al. Hass Avocado Composition and Potential Health Effects *Critical Reviews in Food Science and Nutrition* 2013;53:738-750 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664913/>
- FSANZ. Australia New Zealand Food Standards Code – Standard 1.2.7 – Nutrition, health and related claims Available at: <https://www.legislation.gov.au/Details/F2017C01048> accessed 17 Nov 2018
- NHMRC (2006). Nutrient reference values for Australia and New Zealand: Vitamin C. Available at <https://www.nrv.gov.au/nutrients/vitamin-c>; accessed 17 Nov 2018
- Hunt BD et al. Potassium intake and stroke risk: a review of the evidence and practical considerations for achieving a minimum target. *Stroke* 2014 May;45(5):1519-22. <https://www.ncbi.nlm.nih.gov/pubmed/24699056>
- Meyers KJ et al. Genetic evidence for role of carotenoids in age-related macular degeneration in the Carotenoids in Age-Related Eye Disease Study (CAREDS). *Invest Ophthalmol Vis Sci*. 2014 Jan 29;55(1):587-99. <https://www.ncbi.nlm.nih.gov/pubmed/24346170>
- Chew EY et al. Secondary analyses of the effects of lutein/zeaxanthin on age-related macular degeneration progression: AREDS2 report No. 3. *JAMA Ophthalmol*. 2014 Feb;132(2):142-9. <https://www.ncbi.nlm.nih.gov/pubmed/24310343>
- Ashton OB et al. Pigments in avocado tissue and oil. *J Agric Food Chem*. 2006 Dec 27;54(26):10151-8. <https://www.ncbi.nlm.nih.gov/pubmed/17177553>
- Scott TM et al. Avocado Consumption Increases Macular Pigment Density in Older Adults: A Randomized, Controlled Trial. *Nutrients*. 2017 Aug 23;9(9). pii: E919. doi: 10.3390/nu9090919. <https://www.ncbi.nlm.nih.gov/pubmed/28832514>
- Merle BM et al. Association of HDL-related loci with age-related macular degeneration and plasma lutein and zeaxanthin: the Alienor study. *PLoS One*. 2013 Nov 6;8(11):e79848. <https://www.ncbi.nlm.nih.gov/pubmed/24223199>
- Kijlstra A et al. Lutein: more than just a filter for blue light. *Prog Retin Eye Res*. 2012 Jul;31(4):303-15. <https://www.ncbi.nlm.nih.gov/pubmed/22465791>
- Mahmassani HA et al. Avocado consumption and risk factors for heart disease: a systematic review and meta-analysis. *Am J Clin Nutr*. 2018 Apr 1;107(4):523-536. doi: 10.1093/ajcn/nqx078. <https://www.ncbi.nlm.nih.gov/pubmed/29635493>
- Unlu NZ et al. Carotenoid absorption from salad and salsa by humans is enhanced by the addition of avocado or avocado oil. *J Nutr*. 2005 Mar;135(3):431-6. <https://www.ncbi.nlm.nih.gov/pubmed/15735074>
- NHMRC (2006). Nutrient Reference Values for Australia and New Zealand including Vitamin A paper. Available at <http://www.nrv.gov.au/nutrients/vitamin-a> accessed 17 Nov 2018.
- Kopec RE et al. Avocado Consumption Enhances Human Postprandial Provitamin A Absorption and Conversion from a Novel High-β-Carotene Tomato Sauce and from Carrots. *J Nutr*. 2014 Aug;144(8):1158-66 <https://www.ncbi.nlm.nih.gov/pubmed/24899156>
- Li Z et al. Hass avocado modulates postprandial vascular reactivity and postprandial inflammatory responses to a hamburger meal in healthy volunteers. *Food Funct*. 2013 Feb 26;4(3):384-91. doi: 10.1039/c2fo30226h. <https://www.ncbi.nlm.nih.gov/pubmed/23196671>