

Nutrition

Macadamias have excellent nutritional credentials that are highly relevant to long term food trends. There is an opportunity to build a stronger understanding of the composition of macadamias and related benefits with current and future consumers. The World Macadamia Organisation's (WMO) nutritional messaging is science based, unique to macadamias, and resonates with the health-forward audience in the United States.

This nutritional narrative intends to inform consistent messaging around why macadamias are healthy. It is at the convergence of consumer trends, science, and the attributes that are ownable by macadamias. Macadamia brand owners, processors, communicators and the wider industry are encouraged to use this messaging, as consistency and repetition are key to building consumer understanding and shifting consumption behaviour.

This narrative has been developed for the United States and is in alignment with US regulations. In other countries, other benefit areas may have more relevance or validity.

Good fats

Macadamia nuts contain a variety of 'good fats' that support a healthy diet. They have the highest level of monounsaturated fats (MUFAs) of all nuts in the form of Omega-9 and Omega-7. Omega-9 is known to reduce inflammation, improve heart function through lowering of 'bad cholesterol' levels, and support overall wellness. Research is emerging for the more rare Omega-7 and there are correlations with lower blood sugar levels and healthier insulin responses. Macadamias have polyunsaturated fatty acids (PUFAs) in the form of Omega-3 and Omega-6 and humans need both, however we typically overconsume Omega-6. The ratio of 6:1 (Omega-6: Omega-3) found in macadamias is an excellent balance for optimal health.

Nature's real food

Consumers are increasingly seeking nutrient dense 'real foods' which are not highly processed. The good fats in macadamias contribute to nutrient density together with vitamins, mineral, antioxidants, and phytonutrients. Macadamias are uniquely rich in the mineral manganese, essential for skin cell development and resolving inflammation. Healthy fats also enable the absorption of fat-soluble vitamins. Macadamias are a direct-from-nature whole food that offers exceptional nutritional benefits relative to their calorie content.

Macadamia nuts contain **good fats,** Omega-3, 7 and 9 and have a favorable ratio that supports a healthy diet. The **low-carb** content, combined with high level of unsaturated fats, means macadamias won't cause a spike in blood sugar levels.

Low in carbs

Macadamia nuts are low in carbohydrates, and combined with high levels of unsaturated fats, present an ideal snacking option for those aiming to maintain lower blood sugar levels. There is only a minimal spike in blood glucose levels post-consumption. Encouragingly, preliminary evidence suggests that incorporating macadamia nuts into a carbohydrate-rich meal or snack can lead to a reduced rise in blood glucose levels shortly after consumption, this is particularly relevant to consumers following a LCHF (low-carb, highfat) diet or managing diabetes. Increased use of personal continuous glucose monitors has elevated the conversation around blood sugar management.

Inflammation

Inflammation is a significant health concern. It is a complex immune system reaction in the body in response to damage or invasion, and excess inflammation can cause chronic diseases. Too much added sugar contributes to inflammation, along with an excess of saturated fats found in meat and dairy. Macadamia nuts help to reduce inflammation through the presence of good fats, a favorable ratio of Omega-3 and Omega-6, along with vitamins, minerals and phytonutrients. The consumption of macadamias may help address inflammation related issues, such as digestive, brain and heart health.

Macadamias are a real food direct from nature, delivering nutrition in healthy unprocessed form significant health concern, and consumption of macadamias can help with digestive, brain and heart health.

Nutritional information: how macadamias compare to other tree nuts

















	Macadamia	Almond	Brazil	Cashew	Hazelnut	Walnut	Pecan	Pistachio
Serving* (number of nuts)	10	23	6	18	21	7	19	49
Calories	204	164	187	157	178	185	196	159
Total fat (g)	22	14	19	12	17	19	20	13
Saturated fat (g)	3.4	1	5	2	1.3	1.7	2	1.7
Polyunsaturated (g)	0.4	3.5	6.9	2.2	2.2	13.4	6	4
Omega-6	0.4	3.5	6.8	2.2	2.2	10.8	5.8	4
Omega-3	0.06	0.01	0.01	0.02	0.03	2.57	0.28	0.08
Omega-6:Omega-3 ratio	6:1	246:1	664:1	125:1	90:1	4:1	21:1	48:1
Monounsaturated (g)	17	9	7	7	13	3	12	7
Omega-7	3.69	0.07	0.06	0.04	0.03	0	0	0.14
Omega-9	12.4	8.9	6.7	6.7	12.9	2.5	11.5	6.4
Carbohydrates (g)	4	6	3	9	5	4	4	8
Sugar (g)	1	1	1	2	1	1	1	2
Fiber (g)	2.4	4	2	1	2.8	2	2.7	3
Net carbs (g)	1.5	3	1	8	2	2	1.2	5

^{*} Serving size - 1 ounce | 28-30 grams | 1/8 cup

The nutrition information is in alignment with the United States of America Food & Drug Administration (FDA) regulations. This may differ in other countries.

ratio

How macadamias compare to other healthy foods

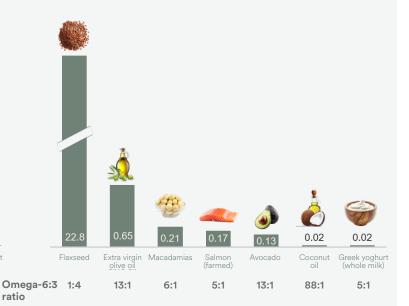
Monounsaturated fats

Total monounsaturated Based on 100g comparison

0.96 Extra virgin Macadamias Avocado olive oil

Polyunsaturated fats

Based on 100g comparison



Resources

- Scientific review report is available on the WMO Members' Portal www.worldmacadamia.com/wmo-portal or scan the QR code.
- For non-members, please email <u>info@worldmacadamia.com</u>.
- Blogs and recipes can be found in the Inspiration section of www.lovemacadamia.org.
- Nutritional related posts are on Facebook, Instagram and Pinterest, under the loveofmacadamia handle.







