

Macadamias have excellent nutritional credentials that are highly relevant to long term food trends. There is an opportunity to build a stronger understanding of macadamias' composition 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.

The WMO commissioned a review of 99 published scientific reports to ensure the macadamia nutritional information that is used in communications is science backed and credible. Two subject matter experts, Denise Webster, a food scientist and regulatory adviser, and Denise Canellos, a nutritionist and author undertook this work. They are adjunct professors at Chapman University in California.

The nutritional narrative is intended 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.

There are four key components to the narrative: macadamias are full of 'good fats', they are low in carbs, they are nutrient dense and can help manage inflammation.

## 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 known to be an ideal balance for optimal health.

## 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. Reduced insulin being released during digestion results in a balanced insulin response. Encouragingly, preliminary evidence suggests that incorporating macadamia nuts into a carbohydrate-rich meal or snack can lead to a decrease in blood glucose levels shortly after consumption, this is particularly relevant to consumers following a LCHF (low-carb, high-fat) diet or managing diabetes. Increased use of personal continuous glucose monitors has elevated the conversation around blood sugar management.

## Nutrient dense

Consumers are increasingly seeking nutrient dense 'real foods' which are not highly processed. Macadamias good fats contribute to nutrient density together with vitamins, mineral, antioxidants, and phytonutrients. Macadamias are uniquely rich in the mineral manganese, essential for skin cell development, resolving inflammation, and building strong bones. Healthy fats also enable the absorption of fat-soluble vitamins. Macadamias provide exceptional nutritional benefits for the calories and they are a direct from nature wholefood.

## 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 Omega-6 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 the vitamins, minerals and phytonutrients. The consumption of macadamias can help address inflammation related issues, such as digestive, brain and heart health.

## Resources

- Full scientific review report is available to WMO members in the Members' Portal – [www.worldmacadamia.com/member-portal](http://www.worldmacadamia.com/member-portal).
- For non-members, please email [info@worldmacadamia.com](mailto:info@worldmacadamia.com).
- Blogs and recipes can be found in the Inspiration section of [www.lovemacadamia.org](http://www.lovemacadamia.org).
- Nutritional related posts are on Facebook, Instagram and Pinterest, under the loveofmacadamia handle.
- 15 minute video of Denise Canellos overviewing the nutritional benefits of macadamias, <https://vimeo.com/user147580524/nutrition?share=copy>.

## Nutritional information



	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.

Macadamia nuts contain a variety of **good fats**, Omegas-3, 6, 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.

The perfect **nutrient-dense** snack, macadamias are a wholefood packed with vitamins, minerals, antioxidants, phytonutrients and good fats.

**Inflammation** is a significant health concern, and consumption of macadamias can help with digestive, brain and heart health.



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