bark&whiskers

Food Facts

This Vitamin-Rich Nut Supports Your Pet's Health

A staple food to Native Americans, this tree nut also contains a diverse nutritional profile that might just be good for your pet, too. Find out how to properly serve it to your furry friend.

Reviewed by <u>Dr. Becker</u>

STORY AT-A-GLANCE

- The composition of nutrients found in pecans is varied, making them a healthy food not just for you but for your pet as well
- Pecans contain oleic acid, which may help lower inflammation and improve insulin sensitivity, as well as
 polyphenols that may aid in weight management
- Another bioactive compound in pecans is EGCG, which is the same powerful antioxidant found in green tea
- Pecans are generally safe for pets; crush them into bite-sized pieces before offering them to your pet, and buy organic or spray-free variants from a reputable grower whenever possible

Editor's Note: This article was originally published November 30, 2023.

Pecans (Carya illinoinensis¹) have a long history of providing sustenance to early civilizations. Historians believe the nut originated in Central and Northeast America, with the earliest evidence of human consumption going back over 8,000 years. Today, it remains a staple in traditional American diets, particularly creole cuisine.²

Another reason for pecan's long-lasting reputation is their nutritional profile. Research indicates that increasing intake of this food may help reduce the risk of cardiovascular disease and even all-cause mortality.³ Wouldn't it be great if your furry pal could enjoy the same? As it turns out, they can!



Pecans Fun Fact

The word "pecan" originated from the Native American Algonquian language. It originally meant "something which requires a stone to crack."



The Bioactive Power of Pecans

"The composition of nutrients found in pecans is varied, making them a healthy food not just for you but for your pet as well. EGCG, vitamins, minerals and other bioactive compounds provide synergistic benefits, such as better weight management, reduced inflammation, stronger antioxidant profile and better gut health."

Pecans have a diverse profile of beneficial compounds that may support pet health. One notable example is oleic acid, which comprises 49% to 76.5% of total oils found in pecans, depending on the variety.⁵

What makes oleic acid great? It may help reduce inflammation by inhibiting pro-inflammatory cytokines, as well as improve insulin sensitivity.⁶ Oleic acid was noted to have a positive effect against sepsis in one study.⁷

Another notable compound found in pecans is epigallocatechin-3-gallate (EGCG). While the content is not as high as green tea, pecans are still a valuable source of this powerful antioxidant.⁸ A mice study noted that EGCG may inhibit anti-inflammatory effects on immune system cells. Thus, it may have potential in controlling autoimmune disease.⁹

In another study, EGCG was noted to have neuroprotective properties.¹⁰ A study published in The Journal of Veterinary Medical Science also found that EGCG may help protect your pet's oral health, as it exhibited antibacterial properties against canine oral bacteria, particularly the Streptococcus mutans strain.¹¹

Pecans may help your pet maintain a healthy weight as well. In a 2023 study published in Nutrients, polyphenols in pecans prevented obesity in mice by increasing energy expenditure. Furthermore, pecans helped reduce inflammation and even promoted better gut health by reducing microbiota dysbiosis.¹²

Other Nutrients Found in Pecans

Pecans are also rich in vitamins and minerals, particularly thiamin, manganese, copper, zinc and gamma tocopherol (a type of vitamin E), which support pet health in different ways. ¹³ For example, thiamin helps support nerve function and muscle cells. A deficiency in it may hinder your pet's ability to convert carbohydrates from their diet into energy. As for manganese, it's needed to help support ligament health. ¹⁴

Meanwhile, copper is needed by dogs for red blood cell production, as well as iron absorption. It also plays a role in skin formation, connective tissue structures and even hair pigmentation.¹⁵ In the case of vitamin E, it may help reduce inflammation and pain in osteoarthritic dogs.¹⁶ Lastly, zinc is important because it supports healthy immune and thyroid function. It also acts as an enzyme and hormone, depending on the need.¹⁷



Did You Know?

In 2001, the state of Texas officially declared pecans their official "health nut." That's not surprising, considering the nutrition found in pecans!



Preparing and Offering Pecans to Your Pet

Remember that misinformation about many healthy fruits, vegetables, nuts and seeds abounds on the internet. This is because websites have labeled all risks — such as the risk of overconsumption causing gastrointestinal issues or choking on too large of pieces or pits — as "toxicities," which isn't true but has managed to confuse millions of pet lovers, nonetheless.

Nuts, including pecans, are often listed as "unsafe" for pets because they can be a choking hazard, causing the misinterpretation that nuts should not be fed to dogs and cats. But in reality, the only nuts your pet should avoid eating are macadamias — they do not contain any toxin but they can cause nausea because of their high fat content.

Excluding macadamias, raw, unsalted nuts are safe for pets to consume, so don't be afraid to offer your furry friend a few pieces of pecans that have been chopped or crushed into tiny, bite-sized pieces. They can be sprinkled as a food topper on your pet's nutritionally balanced, species-appropriate meal, or used as a training treat or ingredient in a homemade snack. To avoid overfeeding, be sure to follow the 10% guideline, which means that treats should only comprise less than 10% of your pet's daily food intake.

When it comes to choosing pecans, you'll need to scrutinize the packaging carefully. If you're buying hulled pecans, they should be light brown with no spots or shriveling. Also, try to look for certified organic, spray-free pecans if possible. While pecans are not listed on the Environmental Working Group's Dirty Dozen list, there's still a chance that most pecans produced are laced with pesticides. On the Environmental Working Group's Dirty Dozen list, there's still a chance that most pecans produced are laced with pesticides.

Top Pecan Producers



The U.S. is the world's top producer of pecans, with the state of Georgia leading the way in terms of harvest. Meanwhile, more than 70% of exports go to China.²¹



Sustainability of the Pecan Industry

The pecan industry is classified as "moderately sustainable," according to a report from HEALabel. It has a low carbon footprint, as it only emits 1.61 kilograms of CO2 to produce a kilogram of pecans. Furthermore, damage to the environment is minimal. ²² Domestic production of pecans also has a low carbon footprint, since there's fewer miles traveled before the final product reaches the consumer. ²³

The major downside to growing pecans is their high irrigation requirements, which may pose challenges in areas where freshwater is scarce. To produce a kilogram of pecans, it takes around 9,063 liters of freshwater. That's because pecan tree roots do not go deep, so they require consistent watering to survive.²⁴

Sources and References

- ¹ <u>USDA, "Carya Illinoinensis"</u>
- ² Gardening Know How, "Pecan Tree History: Inquiring Minds Just Want To Know" (Archived)
- ³ Nutrients. 2018 Mar; 10(3): 339, Abstract
- ⁴ Millican Pecan, March 17, 2020
- ⁵ J Food Sci Technol. 2017 Sep; 54(10): 3366–3369, Introduction
- ⁶ Nat Med. 2011 Jan;17(1):55-63, Abstract
- ⁷ Oxid Med Cell Longev. 2018; 2018: 6053492, Abstract
- ⁸ Int J Mol Sci. 2019 Feb; 20(3): 532, Structure, Bioavailability and Metabolism of Epigallocatechin Gallate
- ⁹ <u>Cellular & Molecular Immunology volume 7, pages123–132 (2010), Abstract</u>
- ¹⁰ Nutr J. 2016; 15: 60, EGCG a Potential Therapeutic Agent for Neurodegenerative Diseases
- ¹¹ J Vet Med Sci. 2016 Sep; 78(9): 1439–1445, Abstract
- ¹² <u>Nutrients. 2023 Jun; 15(11): 2591, Abstract</u>
- ¹³ Greatist, "Are Pecans Good for You?"
- ¹⁴ Mount Sinai, Manganese
- ¹⁵ Cornell University College of Veterinary Medicine, January 28, 2022 (Archived)
- ¹⁶ Can J Vet Res. 2013 Jul; 77(3): 191–198, Abstract
- ¹⁷ VCA Hospitals, "Zinc-Responsive Dermatosis in Dogs"
- ¹⁸ Millican Pecan, August 25, 2021
- 19 EWG, "Dirty Dozen"
- ^{20,22,24} HEALabel, "Pecan Benefits and Side Effects"

- ²¹ Specialty Crop Industry, April 2, 2021
- ²³ FoodPrint, "Pecans"</sup>