

Food Facts

Is This Anti-Inflammatory Veggie Missing from Your Pet's Bowl?

Known for its deep purple color, this versatile vegetable contains compounds that may help fight inflammation and other conditions. Plus, it can be served in various ways.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Eggplant contains bioactive compounds such as chlorogenic acid. Research suggests that this compound may help improve insulin resistance, as well as fight inflammation and fight against colitis
- Rich in phenolics, eggplant contains delphinidin and pectin in the skin that may bind with heavy metals
 preventing absorption
- The quercetin in eggplant may help manage inflammation and fight against diabetic neuropathy, as well as lipid peroxidation
- Other nutrients are present in eggplant, such as manganese, which may help support energy and protein metabolism. The potassium in eggplant may also help with muscle and nervous system function
- Eggplant can be served in various ways to your pet; both chopped and pureed forms work well

Editor's Note: This article is a reprint. It was originally published May 2, 2023.

The common eggplant is known for its deep purple color and flavor that works well both as a side dish and main course. From baked to fried and boiled, the possibilities of eggplant are endless. The best thing is that your pet can partake in this cherished vegetable as well. However, before you offer it to your pet, learn how to properly prepare and cook it to ensure they reap its benefits.



Did You Know?

Ancient Italians were originally wary of eggplant. They called it "mala insana," which roughly translates to "mad apples," as they thought eating it would drive them insane.^{1,2}



Health-Boosting Bioactive Compounds in Eggplant

"Eggplant contains an array of bioactive compounds, namely phenolics, that may benefit pet health. In fact, it contains the most phenolics among the cultivated members of the nightshade family."³

Eggplant is particularly rich in quercetin, which is known for its anti-inflammatory properties, as well as anticarcinogenic and antiviral capabilities. It may even help inhibit lipid peroxidation and platelet aggregation, as well as stimulate mitochondrial biogenesis, according to a study published in 2016.⁴ In another analysis, quercetin helped protect kidneys from diabetic nephropathy.⁵

Another phenolic found in eggplant is chlorogenic acid.⁶ Similar to quercetin, chlorogenic acid has anti-inflammatory properties and may even attenuate colitis severity, according to one study.⁷ In another example, chlorogenic acid also helped with glucose tolerance and insulin resistance using a mice model.⁸ It was also found to be effective against diabetic nephropathy.⁹

Other bioactive compounds in eggplant include delphinidin, a purple-colored pigment that gives eggplant its striking color. Interestingly, the very same compound may also benefit your pet's gut microbiota.¹⁰ Moreover, the pectin found in eggplant's skin may bind with heavy metals in the digestive tract to prevent absorption.¹¹

Other Nutrients in Eggplant May Support Pet Health

Eggplant is a good source of manganese,¹² a mineral that plays various roles in your pet's body functions. According to researchers from Oregon State University, manganese is important for energy and protein metabolism, and a deficiency may lead to slow bone growth.¹³ Another study noted that manganese may help with brain development and neurotransmitter synthesis.¹⁴

Eggplant also contains potassium and vitamin K,¹⁵ both of which play important roles in pet health. Potassium is important for muscle function,¹⁶ as well as for the cardiac and nervous systems.¹⁷ Meanwhile, vitamin K is noted for its coagulant properties that may help with blood clotting.¹⁸ Vitamin K also plays a role in bone reabsorption¹⁹ and maintaining proper bone density.²⁰

Top Producers of Eggplant



New Jersey is the top producer of eggplant in the U.S., with around 849 acres of land dedicated to cultivation. Second place belongs to California, which only has 144 acres devoted to eggplant.²¹



The Lowdown on Eggplant's Safety for Pets

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.

In the case of eggplant, there's a myth that it's poisonous to pets, but fortunately, that isn't the case. This vegetable is safe for pets to consume. Eggplant does contain a moderate amount of oxalates, ²² an antinutrient that can be problematic for some predisposed animals if the vegetable is consumed in large quantities. All toppers, treats and bowl add-ins should constitute no more than 10% of daily calories, so the amount of eggplant in your pet's diet will be minimal. To reduce oxalates, if warranted, peel and boil the eggplant.²³



Eggplant is generally prepared as a vegetable, but did you know it's actually classified as a fruit? That's because eggplant actually grows from the flowers and contains seeds inside as well.²⁴



Selecting and Serving Eggplant to Your Pet

When you're out in the market for eggplant, look for those with a shiny, smooth skin. Dull skin may indicate poor storage. Wrinkled skin is another sign to watch out for, as it indicates the eggplant is old. The flesh should also be slightly firm.²⁵ You can serve eggplant to your pet raw or cooked, in pureed form (great for lick mats or as a meal topper) or chopped into bite-sized pieces as a training treat.

Sustainability of Eggplant Farming

Eggplant is not included in the Environmental Working Group's Dirty Dozen list. However, it's not in the Clean Fifteen, either.²⁶ This means conventionally grown varieties may still contain pesticide residues. If possible, look for organic, spray-free eggplants, as these are eco-friendly and do not contain toxic pesticides.

In a study published in 2021, researchers noted that organic farming of eggplant produced a 24.15% lower total environmental footprint compared to conventional yields. Ecotoxicity due to conventional eggplant farming practices, particularly the use of chemical fertilizers and pesticides, was also 83% higher than organic practices' ecotoxicity. ²⁷ If you're unable to buy organic eggplant, conventional eggplant is still OK. Just make sure to wash it thoroughly before cooking it for your meals and/or feeding it to your pet.

Sources and References

- ¹ North Dakota State University, Prairie Fare: Eggplant No Longer the 'Mad Apple'
- ² Texas A&M, Eggplant and Indian Mustard, Two More Asiatics (Archived)
- ^{3,6} Food Chemistry, 268 (1028) 602-610, Bioactive Compounds in Eggplant (Archived)
- ⁴ <u>Nutrients. 2016 Mar; 8(3): 167, Animal Models</u>
- ⁵ <u>European Journal of Pharmacology Volume 921, 15 April 2022, 174868, Abstract</u>
- ⁷ Front. Physiol., 27 March 2019, Abstract
- 8 Front Endocrinol (Lausanne). 2022 Nov 17;13:1042044, Abstract
- ⁹ <u>International Immunopharmacology Volume 54, January 2018, Pages 245-253, Abstract</u>
- ¹⁰ <u>Frontiers in Nutrition, March 17, 2022, Sec. Food Chemistry, Volume 9</u>
- ¹¹ Curr Allergy Asthma Rep. 2021 Sep 10;21(10):43, Pectin-Mediated Health-Promoting Effects
- 12 Verywell Fit, June 26, 2024
- ¹³ Oregon State University, A Guide to the Principles of Animal Nutrition
- ¹⁴ Metal Ions in Life Sciences. 2013; 13: 199–227, Manganese Essentiality
- ¹⁵ <u>USDA, Eggplant, Raw</u>
- ¹⁶ <u>VCA Animal Hospitals, Hypokalemia (Low Potassium Levels) in Dogs</u>
- ¹⁷ Parsley Pet, February 7, 2020
- ¹⁸ Wag, August 9, 2023
- ¹⁹ <u>J Osteoporos. 2019 Dec 31;2019:2069176, Abstract</u>
- ²⁰ Nutrition. 2001 Oct;17(10):880-7
- ²¹ News12, September 7, 2019
- ²² International Journal of Food Science and Nutrition Engineering, Introduction (Archived).
- ²³ <u>J Agric Food Chem. 2005 Apr 20;53(8):3027-30, Abstract</u>
- ²⁴ Reader's Digest, July 17, 2024
- ²⁵ Bon Appetit, July 29, 2015
- ²⁶ EWG, 2024 Dirty Dozen Full List

