

# Can This Common Fruit Boost Your Pet's Digestion and Vitality?

This fruit is one of the most popular in the world, and for good reason. It's rich in antioxidants, prebiotics and phytochemicals. When it comes to offering it to pets, the greener it is, the better.

Reviewed by Dr. Becker



## STORY AT-A-GLANCE

- Serving bananas as a treat or as a part of your pet's nutritionally adequate, species-appropriate diet may benefit their health
- One of the most notable benefits of bananas is that they're rich in antioxidants, including phenolics, carotenoids, biogenic amines and phytosterols
- Green bananas contain resistant starches and pectins, making them a good whole food source of prebiotics
- Catechins in bananas help fight oxidative damage through different pathways
- There are many ways to feed your dog bananas, but it's always important to chop up bananas into very small pieces to avoid any choking potential

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Bananas have been a part of people's diet for thousands of years. In fact, they are one of the most popular and highly cultivated fruits worldwide, outranking apples and oranges in terms of sales, with around 100 billion consumed globally annually.<sup>1</sup> Bananas have become a staple in many cultures because they're filling, versatile and affordable. They're also a good source of various nutrients and bioactive compounds that may benefit not only you but your furry family members too.



### Did You Know?

The banana plant that's often referred to as a "tree" is actually a gigantic perennial herb. Banana fruits are also botanically classified as a berry, and they're a distant cousin to ginger, cardamom and turmeric.<sup>2</sup>



## Bananas Provide Your Pet an Array of Antioxidants

One of the most notable benefits of bananas is that they're rich in bioactive compounds that exhibit powerful antioxidant properties, including "phenolics, carotenoids, biogenic amines and phytosterols."<sup>3</sup> Among these, phenolics are the major compounds that contribute to this fruit's ability to help lower your pet's risk for oxidative stress. Some of the phenolic compounds present in bananas include catechins, epicatechins and gallic acid.<sup>4</sup>

Catechins, in particular, help fight oxidative damage through different pathways. According to a study published in Biomedical Dermatology, catechins not only help scavenge free radicals but they also help inhibit damage caused by UV rays and pollution, activate collagen synthesis and inhibit the production of enzymes responsible for collagen degradation.<sup>5</sup>

In another study published in Toxicology Reports, gallic acid has been found to exhibit protective effects against lead-induced oxidative stress in rats. According to the researchers, this compound may help reverse oxidative damage caused by lead toxicity "not by decreasing [lead] bioaccumulation, but by improving antioxidant defenses."<sup>6</sup>

## How Can Flavonoids Benefit Your Pet?

Another type of phenolic compound found in bananas is flavonoids. According to an article in Food Quality and Safety:<sup>7</sup>

*"Among the flavonoids detected in banana are as follows: quercetin, myricetin, kaempferol, and cyanidin which provide health benefits mainly because they act as free radicals, ROS, and RNS scavengers."*

In addition to their antioxidative action, these flavonoids exhibit other health-promoting therapeutic properties. Quercetin, for instance, has been found to help reduce the risk for obesity in animals by inhibiting mitochondrial dysfunction caused by oxidative stress. It also exhibits anti-inflammatory properties, which have been linked to improved lipid metabolism in obese dogs.<sup>8</sup>

Moreover, myricetin has been studied for its potential effects on canine osteosarcoma, an aggressive bone cancer that accounts for about 85% of all canine bone tumors.<sup>9</sup> According to a study published in the Journal of Cellular Physiology, myricetin helped suppress the proliferation of cancer cells and DNA replication while increasing apoptosis among osteosarcoma cell lines. The researchers concluded that myricetin may be a "potentially effective and less toxic therapeutic agent" to lower the risk for and control the progression of canine osteosarcoma.<sup>10</sup>

## Carotenoids May Help Support Your Pet's Immunity and Eyesight

In the previously mentioned study published in Food Quality and Safety, bananas were also found to be rich in carotenoids, including alpha-carotene, beta-carotene, lycopene, lutein and beta-cryptoxanthin.<sup>11</sup> The antioxidant and anti-inflammatory properties of these compounds may help protect your pet's eyes against reactive oxygen species (ROS) and inflammation, which could cause age-related eye diseases.<sup>12</sup>

Carotenoids may also help improve your pet's immune health. One study published in the Journal of Veterinary Internal Medicine evaluated the effects of carotenoids, particularly beta-carotene, on the immune responses of young and old dogs. Results showed that beta-carotene helped restore the immunological responses of older dogs.<sup>13</sup> This compound is found at higher amounts in yellow- and orange-fleshed bananas.<sup>14</sup>

## Phytosterols May Help Optimize Cholesterol

Another notable compound found in bananas is phytosterols. According to an article in Frontiers in Pharmacology:<sup>15</sup>

*"A wide number of researches have reported that [phytosterols] possess a wide variety of interesting pharmacological properties, including anti-inflammatory, antioxidant, antidiabetic, chemopreventive, and antiatherosclerotic effects."*

The mechanism of action of phytosterols lies in its similar structure to cholesterol, which allows it to compete with cholesterol for gut absorption. A study published in Domestic Animal Endocrinology evaluated the effect of phytosterols on the levels of low-density lipoprotein (LDL), or "bad" cholesterol, in dogs. Researchers found that this compound helped reduce LDL levels while increasing high-density lipoprotein, the good cholesterol.<sup>16</sup>

### Where Do Bananas Grow?



Bananas thrive best in hot, tropical climates. They're said to have originated from Southeast Asia, in the Malay Archipelago. Today you can see them all over the globe, but most notably in tropical regions in South and Central America, China, India and Africa.<sup>17</sup>



## Other Nutrients Found in Bananas

***"Aside from phytochemicals, bananas also contain a variety of nutrients that may contribute to your pet's optimal health."***

Bananas are known to be a rich source of potassium, providing 33 milligrams of this mineral per 1-tablespoon serving.<sup>18</sup> This mineral plays a role in regulating heart rate and blood pressure levels.<sup>19</sup> A tablespoon serving of bananas also contain around 0.8 milligrams of vitamin C, which is another antioxidant that acts as a cofactor for a number of biological processes, including collagen synthesis, immune function and wound healing, among others.<sup>20</sup>

Bananas are also rich in fiber, especially the green variety. Green bananas contain resistant starches and pectins<sup>21</sup> that make for a good whole food source of prebiotics. Unlike prebiotic supplements, whole food sources of prebiotic fibers may help nourish the friendly bacteria in your pet's digestive tract without the risk for small intestinal bacterial overgrowth (SIBO) and other gastrointestinal issues. Green (unripe) bananas have substantially less sugar than the ripe fruit, so for pets, the greener, the better.

## Can You Feed Bananas to Your Cat?

If your cat seems interested in this fruit, you can try giving them a few tiny nibbles. However, it's highly unlikely for your cat to have a taste for bananas, since they're not attracted to sweet-tasting foods, unlike dogs and people. Rather, they prefer foods that taste like animal products, which tells a lot about their nature, as obligate carnivores.



### Banana Fun Fact

Before the Cavendish banana rose to popularity, there was another variety of banana that dominated the market until the latter half of the 19th century: the Gros Michel. Considered tastier and more resistant to bruising, Gros Michel bananas were wiped out by Panama disease.<sup>22</sup>



# Try Making These Banana Dog Treats Today

There are many ways to feed your dog bananas, but it's always important to chop up bananas into very small pieces to avoid any choking potential. You can give tiny bits of banana raw or frozen, or mashed, inside their chew toys or on a lick mat. If you want to go the extra mile, try making these quick and easy banana treats. Be sure to follow the proper serving size when feeding it to your pet (more about this later).

## Frozen Banana Basil Towers for Dogs

### Ingredients:

- 🐾 Banana
- 🐾 Fresh basil
- 🐾 Ground free-range turkey or chicken, fresh

### Procedures:

1. Cut the banana into thin slices.
2. Place a fresh basil leaf on every banana slice, and then top them with a small amount of ground turkey or chicken meatball.
3. Freeze for three hours on a cookie sheet or freezer-safe pan.

## Banana Nut Biscotti

### Ingredients:

- 🐾 2 overripe bananas
- 🐾 1/4 cup plain kefir
- 🐾 1 1/2 cups almond flour

### Procedures:

1. Blend all ingredients together, and then pour the mixture into a greased mini loaf pan.
2. Bake at 200 degrees F (93 degrees C) for one hour and 40 minutes. Once done, remove from oven and let cool for 20 minutes. Flip onto a cutting board and slice into 1/2-inch strips.
3. Bake the strips again at 200 degrees F for one hour and 15 minutes, or until hard. Remove from oven and let cool before giving to your pet.

Store extra servings in the freezer or refrigerator and consume within one week. If stored in the freezer, this can stay fresh for up to three months.

# How You Feed Bananas to Your Pet Matters

If you're worried about feeding bananas to your pet, don't be. There may be a lot of misinformation about healthy fruits, vegetables, nuts and seeds on the internet, but don't let that scare you away from giving your pet these foods. This is because websites have labeled all risks (such as the risk of over-consumption 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.

Bananas are not bad for your dog. Serving bananas as a treat or as a part of your pet's nutritionally adequate, species-appropriate diet may benefit their health. If you want your pet to reap the benefits of bananas without any risk, just make sure you feed them to your pet correctly.

Bananas are best enjoyed by your pet in moderation. Remember that treats, including extra fruits and veggies, should comprise less than 10% of your pet's daily caloric intake.

Although the Environmental Working Group (EWG) lists bananas as No. 30 on their Shopper's Guide to Pesticides in Produce,<sup>23</sup> meaning they're one of the safer nonorganic options, "spray-free" or organic bananas are always the safest choice when trying to avoid pesticide exposure. With these tips in mind, you'll be able to let your pet enjoy bananas as a healthy and tasty treat.

## Sources and References

<sup>1</sup> [Science](#), October 14, 2022

<sup>2</sup> [The Spruce Eats](#), September 16, 2020

<sup>3</sup> [Food Chem.](#) 2016 Sep 1;206:1-11

<sup>4,7</sup> [Food Quality and Safety](#), Volume 2, Issue 4, December 2018, Pages 183–188, Phenolic Compounds

<sup>5</sup> [Biomedical Dermatology](#). 2020 Feb 26;4(1):8, Background

<sup>6</sup> [Toxicology Reports](#). Volume 3, 2016, Pages 351-356, Abstract

<sup>8</sup> [Vet Med \(Auckl\)](#). 2020 Mar 16;11:39–44, Abstract

<sup>9</sup> [AKC Canine Health Foundation](#), May 20, 2010

<sup>10</sup> [J Cell Physiol](#). 2018 Sep;233(9):7457-7466

<sup>11,14</sup> [Food Quality and Safety](#), Volume 2, Issue 4, December 2018, Pages 183–188, Carotenoids

<sup>12</sup> [Oxid Med Cell Longev](#). 2019 Feb 12;2019:9783429, Abstract

<sup>13</sup> [J Vet Intern Med](#). 2003 Nov-Dec;17(6):835-42

<sup>15</sup> [Front Pharmacol](#). 2021 Jan 14;11:599959.

<sup>16</sup> [Domest Anim Endocrinol](#). 2021 Jul;76:106610

<sup>17</sup> [Rainforest Alliance](#), August 31, 2014

<sup>18</sup> [USDA FoodData Central](#), Bananas, Raw

<sup>19</sup> [J Am Heart Assoc](#). 2020 Jun 5;9(12):e015719.

<sup>20</sup> [NIH ODS](#), Vitamin C

<sup>21</sup> [Nutrients](#). 2019 May 29;11(6):1222, Introduction

<sup>22</sup> [Time](#), November 18, 2019

<sup>23</sup> [EWG](#), [EWG's 2024 Shoppers Guide to Pesticides in Produce™](#)

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