

**Cat Tips** 

# Cats and Milk: A Wives' Tale or Good Practice?

Since the 19th century, artists have drawn cats drinking from bowls of milk, but is it a good idea in real life? Should you give your kitty milk, even if she enjoys it? Here is what you need to know about a myth that just won't go away - feeding cow's milk to cats.

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#### STORY AT-A-GLANCE

- The idea that cats should drink milk is simply a myth; the only milk very young kittens should drink is their mother's, or if motherless, a commercial kitten formula or in a pinch, a homemade milk formula recipe
- Like adults of any species, adult cats typically have trouble digesting the milk of another species, and like humans, many cats are also lactose intolerant
- Cow's milk offers inadequate nutrition for cats, can create bowel issues, and it also contains phosphate, which can exacerbate chronic feline kidney disease
- Like dogs, cats should be offered only clean, fresh, filtered drinking water; most importantly, they should receive most of their hydration from a moisture-dense, nutritionally balanced, species-specific (meat-based) diet

One of several cat-feeding myths-that-will-not-die is that feline family members can and/or should drink milk as adults. According to Live Science:

"The popular image of cats drinking milk may have emerged during the 19th century, when cats and dogs became popular subjects for artists. As the Industrial Revolution progressed and more people migrated to cities, the number of cat and dog owners grew, and artists were increasingly called on to paint charming works of pets.

As such, French artist Alfred-Arthur Brunel de Neuville often drew cats drinking from bowls of milk, and his work proved very popular during his lifetime, according to **Rehs Galleries** (opens in new tab) in New York City."<sup>1</sup>

Given the opportunity, kittens will drink their mother's milk until they are fully weaned. Ideally, they should be with their mother until they're at least 6 weeks old, because the longer they are fed mom's milk, the healthier their start in life. Not only is the mother cat's milk the ideal nutrition for her kittens, but it also provides important antibodies that help protect the babies from disease until their own immune systems are able to.

Motherless kittens who must be hand-fed should be given either a commercial kitten formula available at pet stores or online (KMR is a popular kitten milk replacer), or a homemade milk formula recipe. In an emergency, you can mix 3 ounces of condensed milk, 3 ounces of water, 4 ounces of plain yogurt (not low fat), and 3-4 egg yolks (no whites). I have also used raw, unpasteurized goat's milk in a pinch, for a feeding or two, with good success.

## Why Kittens and Cats Shouldn't Be Fed Cow's Milk

The reality is that adults of any species typically have trouble digesting the milk of another species, and that includes cats. Like humans, many kitties are also lactose intolerant (lactose is the sugar found in milk).

"For most cats, the ability to digest lactose declines after weaning," Nathalie Dowgray, head of the International Society of Feline Medicine in the United Kingdom, told Live Science. "As a result, milk can cause digestive issues in cats and lead to symptoms such as diarrhea or vomiting."

And even if your cat retains the ability to digest lactose into adulthood (just as some humans do), cow's milk offers no nutritional value to felines, and since it's high in fat, it adds empty calories to the diet. Cow's milk also contains high levels of phosphate, which can exacerbate chronic kidney disease in cats<sup>2</sup> by contributing to the level of phosphorus in the bloodstream.

Interestingly, some adult cats may still crave milk, perhaps because it brings back positive memories of kittenhood, and/or because they like the taste of milkfat.

### **Like Dogs, Cats Should Drink Water**

Kittens past the age of weaning and adult cats should be offered a moisture-rich, species-specific diet that meets most of their hydration needs, along with a constant supply of clean, fresh, filtered drinking water.

To encourage your kitty to drink, place a few stainless steel or Pyrex glass bowls around the house in areas she frequents. Avoid plastic water bowls, which can make the water taste unpleasant. You might also want to consider purchasing a pet water fountain to replace your cat's water bowl, since many kitties will drink more from a moving water source.

You can also offer bone broth in addition to water. Broths are an excellent way to entice cats to drink more. Add a bowl of warm broth beside her regular food on a daily basis.

Fun fact: According to a 2010 study,<sup>3</sup> cats are more resourceful drinkers than their canine counterparts. When a **dog drinks water**, she uses her tongue to scoop the liquid into her mouth. It's an inefficient and downright sloppy method of hydration, as any dog owner can attest.

Cats, on the other hand, use a balance of gravity and inertia to get every last drop they lap into their mouths. They use the tip of their tongue to pull water upward, and then know exactly when to close their jaws before gravity can return the liquid to the bowl. It's truly a feat of speed and timing!

## Why Cats Must Eat a Moisture-Rich, Meat-Based Diet

One of many distinctive biological features of cats is their need to get most of their water intake from the food they eat. Domestic cats, having evolved from desert-dwelling ancestors, are not as responsive as other animals to sensations of thirst or dehydration.

Unlike dogs who drink frequently from their water bowls, when fed a diet devoid of moisture (e.g., kibble), cats aren't driven to search for another source of water to make up the difference between what their bodies require and what their diet provides. This can result in chronic mild dehydration, a condition that will ultimately result in disease, especially of the feline lower urinary tract and kidneys.

As obligate/true/strict carnivores, cats must eat animal meat and organs (which are naturally moisture-dense) to meet their nutritional needs, and plant-based proteins (grains and vegetables) aren't a good substitute. Cats lack the specific enzymes necessary to use plant proteins as efficiently as animal proteins.

The proteins derived from animal tissue contain a complete amino acid profile. Amino acids are the building blocks of protein. Plant-based proteins don't contain all the amino acids critical for the health of an obligate carnivore. Humans, who are omnivores, have the physiological ability to turn plant proteins into the missing pieces needed for a complete amino acid profile. To a very limited extent dogs can do this, but a cat's body isn't equipped for it whatsoever.

Cats also need much more protein in their diet than other animals. Kittens require 1.5 times more protein than puppies. Adult cats need two to three times the amount adult dogs require. In addition to their increased need for protein, cats also have a higher requirement for certain specific amino acids found naturally in animal tissue.

Since cats evolved hunting a different set of prey species than dogs did, their dietary requirements are different than dogs. They have a special requirement for vitamin A, which is available naturally only in animal tissue. They lack the intestinal enzymes necessary to convert B-carotene in plants to the active form of vitamin A. Vitamin A is essential for maintenance of vision, growth of bone and muscle, reproduction, and the health of epithelial tissues.

Cats also require five times more dietary thiamine (vitamin B1) than dogs do. Unfortunately, thiamine isn't stable in commercial pet foods and levels drop significantly the longer the food is stored, so many cats may be deficient unless they're eating very fresh food. Arachidonic acid is an omega-6 fatty acid that dogs can make themselves, but cats must get from their diet, which should be as biologically similar to prey as possible, in terms of macronutrients.

By feeding cats the way nature intended — a diet rich in fresh, animal-sourced protein and minimal carbs/starch — we can minimize metabolic stress, and optimize healthspan and lifespan.

#### **Sources and References**

- <sup>1</sup> Live Science, October 7, 2022
- <sup>2</sup> Dobenecker, B. et al. Journal of Feline Medicine and Surgery, Vol. 20, Issue 4, June 1, 2017
- <sup>3</sup> <u>Science November 26, 2010; 330(6008):1231-4</u>