

Dogs and Cats Couldn't Be More Different – Here's How They Compare

Especially if you live with both species, you'll surely agree that cats and dogs are different. But do you know exactly how they differ? Do you really know who sleeps more, who's more likely to be healthier and live longer and which species gets along better with others?

Reviewed by [Dr. Becker](#)

STORY AT-A-GLANCE

- Dogs and cats, both, make wonderful pets, but they each have unique differences in their physical make-up, food preferences and the way they hunt
- Like horses and humans, dogs have a tendon in their necks called the nuchal ligament, which attaches their heads to their spines and stabilizes their head so they can run faster, further and more efficiently
- Cats hunt on their own, practicing stealth, using short bursts of power and flexibility, and their keen audio and visual perceptions to hunt prey
- Cats are quicker to “potty train” themselves and have a better memory, but dogs can eat both plants and meat, and may more readily accept changes in their environment
- Both dogs’ and cats’ noses are as unique to them as a human’s fingerprints are singular to them, which is a convenient factoid to know if your favorite cat or dog is ever lost or stolen

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Ask most people who include **dogs or cats in their household** — especially those who have both — and you’ll hear a wide array of opinions and observations on the differences between these two types of beloved pets.

But have you ever wondered which can run faster, which species sleeps more or which has the ability to better adapt to new circumstances and environments? How about whether dogs or cats have a stronger constitution, and which gets along better with members of their own species?

This article will delve into a few of these points — not to prove one is better than the other, but to explore a few of the differences and unique capabilities of dogs and cats.

Unique Hunting Characteristics in Dogs

Part of the abilities these animals possess concern individual anatomical makeup. For instance, what makes dogs the runners they (often) are involves a tendon in their necks called the nuchal ligament.

Horses have the same ligament, which attaches their heads to their spines for stabilization. This helps them run not just more efficiently, but faster and further. Early canids (mammals belonging to the dog family) had elongated leg bones, designed to maximize their stride. The extinct eucyon canid is an example.

Additionally, some canines are built to trail using scent over long distances, literally “following their noses” and keeping them to the ground, as the sayings go. Earlier generations of dogs had to develop longer necks and noses, which made use of the nuchal ligament to conserve energy.

Over millennia, some dogs have lost the agility they once had in their front legs and the strength they had in their neck muscles; however, they no longer need to take prey down by themselves as they once did. They took to running in packs in order to accomplish this feat most efficiently.

Interestingly, one other species has the nuchal ligament, making long distance running a forte other species don’t have: humans. And the feline persuasion does not.

Cats’ Exceptional Flexibility and Maneuverability

Cats, conversely, neither run in packs nor catch their prey by running them until they drop from exhaustion. They hunt on their own, practicing stealth, after which they make short work of the chase using short bursts of power and nimble flexibility.

They use their keen audio and visual perceptions to hunt prey, rather than scent ability like dogs do.

You may have seen examples of how a cat is able to leap up to nine times their height in a single bound and even change their trajectory mid-leap, twisting their spines amazingly in order to land on all fours. However, that doesn’t mean they’re never injured in the process.

Scientists used slow-motion video footage to learn how cats maneuver in mid-air and still manage to land on their feet when they hit the floor. How do they do it? According to Wonderopolis, they use their in-born “righting reflex,” a balance system that involves their eyesight and inner ear called their vestibular apparatus.

“Cats have an incredible sense of balance, and their highly-flexible backbones allow them to rotate their upper bodies quickly to face downward. Their lower bodies then follow along, allowing them to land on all four feet.”¹

Unfortunately, cats sometimes miss the mark, but part of the beauty of their amazing flexibility is that they’re usually able to, as they say, shake it off.

Why Is the Cheetah Considered the Fastest Animal in the World?

Yes, there are anatomical reasons why cheetahs are so incredibly fast. It’s important to note, though, that cats can maintain this for the short term, not over the long haul. This makes them great sprinters, but not very successful distance runners.

A cat’s fine bones and in most cases lots of fur serve to soften their fall if they should miscalculate a jump. You’ll note that, sometimes, they can stretch out their length mid-jump, which increases the air resistance to slow their descent.

Experts also say that longer falls or leaps actually provide more opportunity to put these instincts into play.

Whether they land lower or higher than where they started, cats also have the additional benefit of retractable claws, which help them dig in, similar to the way cleats help runners stay the course and attain a running speed of around 30 miles per hour. They're also able to climb trees and other heights.

Dogs, however, wear down their claws while they walk, making them dull, and they're certainly not able to climb. The Bark observes:

“A cat’s spine is much more flexible than that of a dog. Their vertebral bones have increased elasticity in the disc between bones when compared to a dog, which is why cats don’t have the back problems that dogs tend to have.

A cat’s vertebrae also is less tightly connected than a dog’s, making the spine far more flexible, and a cat’s pelvis and shoulders are more loosely attached to its backbone than dogs.

A cat can stretch their body and run with a stride length of three times their body length.”²

Other Variables That Make Dogs Outstanding and Cats Exceptional

Factors like whether or not these animals live on the street or in a loving home is, of course, paramount when it comes to which lives longer, dogs or cats. The lifespan for both animals concerns the availability of food and water, shelter from inclement weather, other animals that might harm them and stress. Additionally:

“Since the average lifespan of a cat is 12 to 19 years, and the dog with the shortest lifespan lives only an average of 8 years, all things being equal, cats live longer than dogs.”³

Banfield Pet Hospital⁴ compares cats with dogs and observes that:

- Cats train themselves to use a litter box inside or outside with practically no trouble at all, while dogs need to be trained while they're still puppies to relieve themselves where and when appropriate, which takes some time and effort.
- Fully grown dogs have 42 teeth, while cats have 30.
- Dogs are facultative carnivores, meaning they can eat both plants and meat depending on what's available, and can even survive (but not thrive) eating only plants, if in survival mode. Cats, though, are strict carnivores. Domesticated cats also eat more often than dogs, but smaller amounts each time.
- Cats are also generally more self-sufficient and less inclined to have “cat pals” to hang around with compared to dogs, who more readily accept environmental changes and are easier to train than most felines.
- Although it may be somewhat controversial, cats are said to have better recall than dogs, remembering for as long as 16 hours, while dogs can remember for shorter periods, says research.

So what do dogs and cats have in common? Both dogs' and cats' noses are as unique to them as a human's fingerprints are singular to them, which is a convenient factoid to know if your favorite cat or dog is ever lost or stolen.

Sources and References

¹ [Wonderopolis 2014-2017 \(Archived\)](#).
² [The Bark July 26, 2016 \(Archived\)](#).
³ [The Nest 1997-2016](#).
⁴ [Banfield Pet Hospital \(Archived\)](#).
