

Illustrated Doggy Handbook

100 Amazing Dog Facts

Every Dog Lover Should Know



Fascinating · Surprising · Fact-checked

Welcome



You share your home with one of the most remarkable animals on Earth. Dogs were the first species humans ever domesticated, and after tens of thousands of years together, they still surprise the scientists who study them.

This book collects 100 of the most fascinating facts about dogs, from the science of their noses to the history of their bond with us. Every fact comes with a short explanation of why it's true, because a fact you understand is a fact you remember.

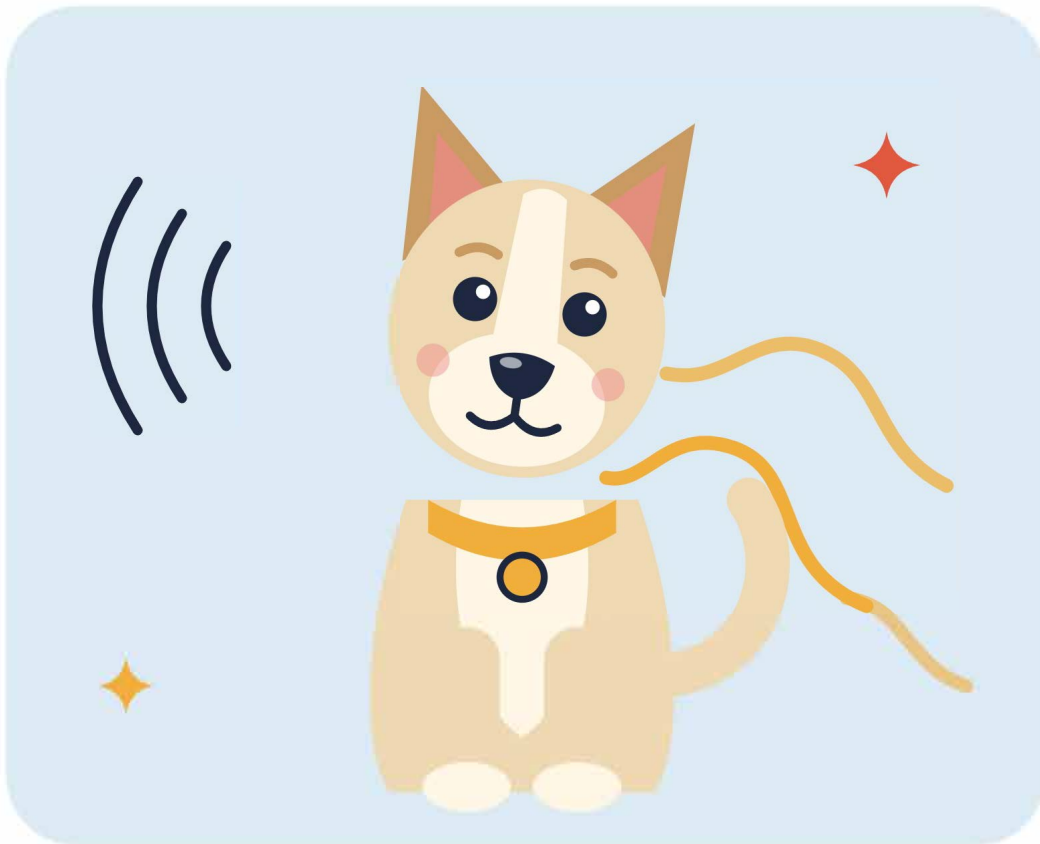
We've also done something most dog-fact lists don't: we checked. Plenty of popular "facts" floating around online are myths. The final chapter sets the record straight.

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Super Senses

A dog experiences the world in ways we can barely imagine. Their nose alone is a scientific marvel.



FACTS 1–15

Super Senses



1

A dog's nose has up to 300 million scent receptors.

Humans have about 6 million. That gap is why scientists estimate a dog's sense of smell is somewhere between 10,000 and 100,000 times more sensitive than ours.

2

A huge share of a dog's brain is built for smelling.

Relative to brain size, the area that analyzes smells is about 40 times larger in dogs than in humans. Where we mostly see the world, dogs mostly smell it.

3

Every dog's nose print is unique.

The ridges and bumps on a dog's nose leather form a pattern as individual as a human fingerprint. Some registries and researchers have explored nose prints as a way to identify dogs.

4

Dogs smell in stereo.

Each nostril takes in scent separately, so the brain can compare the two and work out which direction a smell is coming from. It's how a tracking dog knows which way to turn.



Super Senses



5

Dogs can breathe in and sniff out at the same time.

When a dog exhales, air leaves through the slits on the sides of the nose instead of the front. This keeps fresh scent flowing in without being blown away, so a dog can sniff almost continuously.

6

A wet nose is a better nose.

The thin layer of mucus on a dog's nose traps scent molecules from the air. Dogs often lick their noses to keep that surface working well.

7

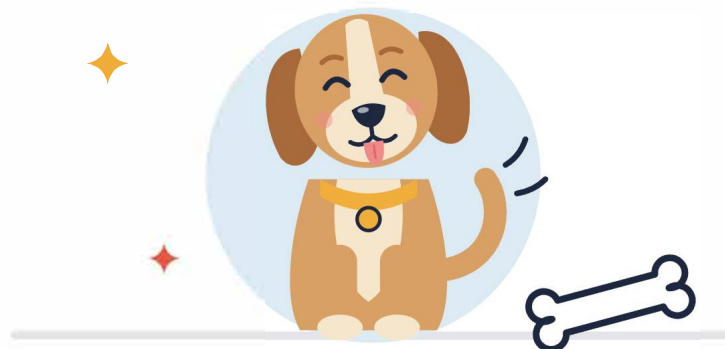
Dogs have a second scent organ.

The vomeronasal organ, also called Jacobson's organ, sits in the roof of the mouth and detects pheromones. These chemical signals carry information about other animals, like whether a female is ready to breed.

8

Trained dogs can detect some diseases.

In studies, dogs have been trained to sniff out certain cancers, the low blood sugar of a diabetic person, and even infections like COVID-19. Medical alert dogs already help people with diabetes and epilepsy every day.



Super Senses



9

Dogs hear sounds far too high for us.

Humans top out at around 20,000 hertz. Dogs can hear up to roughly 45,000 hertz, which is why a “silent” dog whistle works.

10

Dogs use at least 18 muscles to move their ears.

They can tilt, rotate, raise, and lower each ear on its own to pinpoint a sound. Those same muscles also help them express emotions.

11

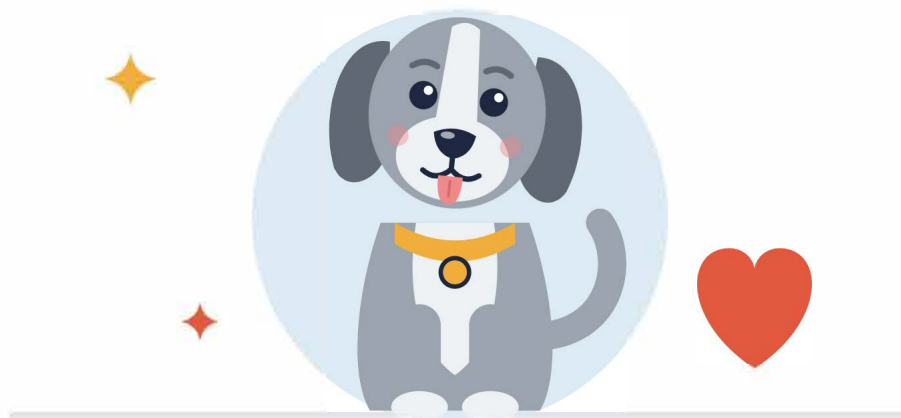
Dogs see well in the dark.

A reflective layer behind the retina, called the tapetum lucidum, bounces light back through the eye for a second chance at being detected. It's also why your dog's eyes glow in flash photos.

12

Many dogs see a wider view than we do.

Depending on the breed and the shape of the head, a dog's field of view can reach about 240 to 250 degrees. Humans see about 180 degrees.



Super Senses



13

Dogs notice movement better than detail.

Their eyes are tuned to spot motion, even far away, but their sharpness is lower than ours. A dog may miss you standing still across a park, then spot you the moment you wave.

14

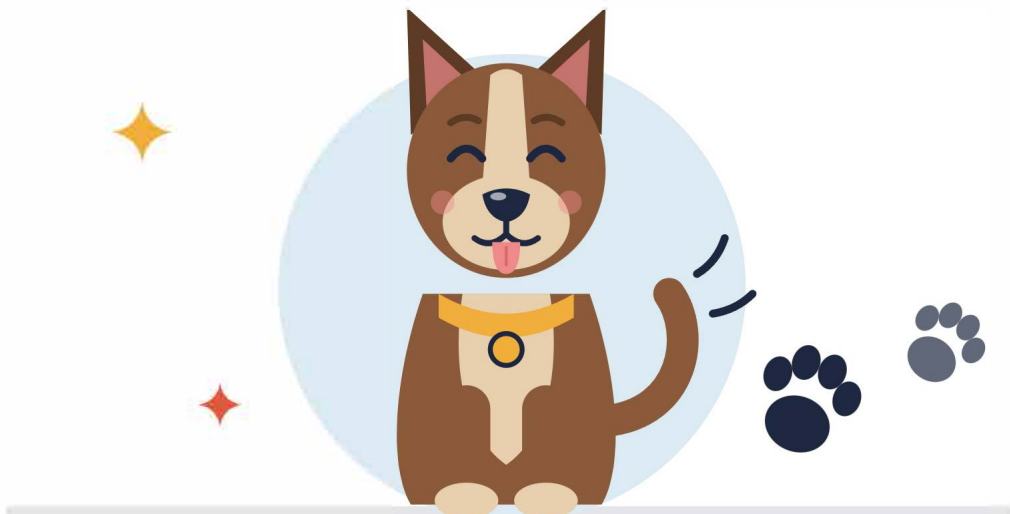
Whiskers are sensors, not decoration.

Dogs' whiskers, called vibrissae, are deeply rooted and packed with nerves. They pick up tiny changes in air currents, helping dogs sense nearby objects, especially in the dark.

15

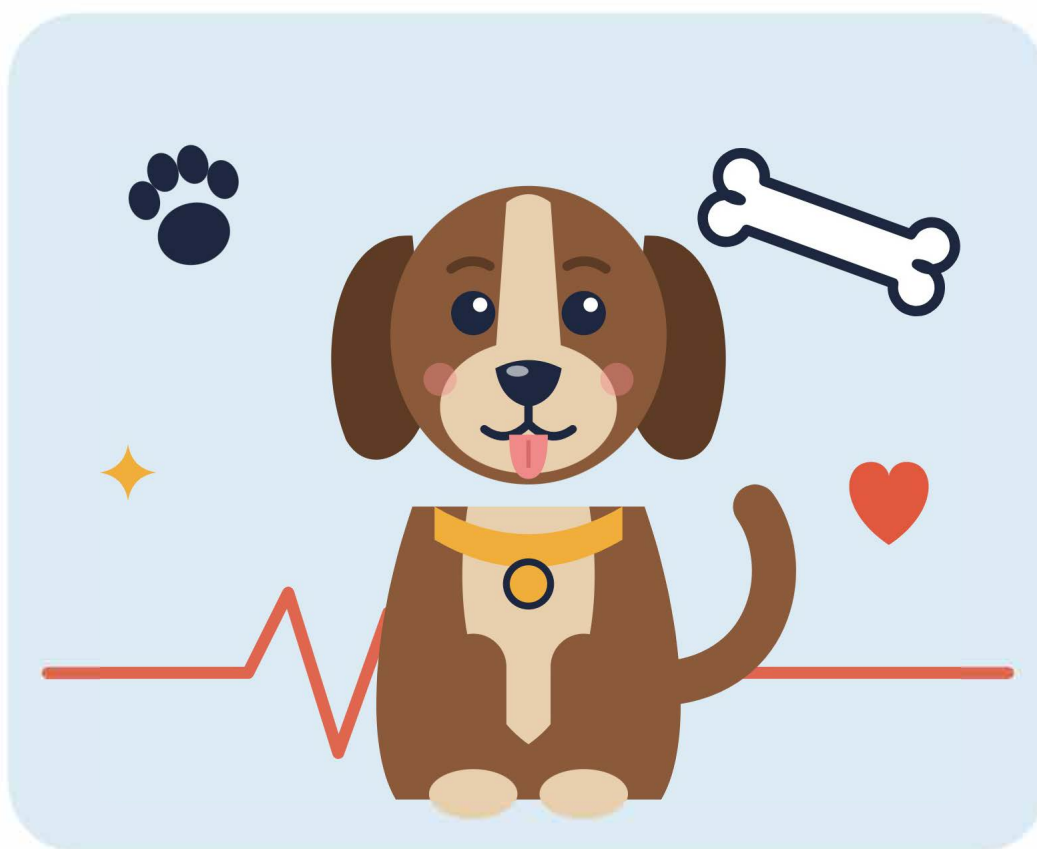
Dogs have fewer taste buds, but special ones for water.

Dogs have about 1,700 taste buds compared to our roughly 9,000. But the tip of a dog's tongue has receptors that respond to water, and they become more sensitive after salty or sugary foods.



Body & Biology

From their teeth to their tails, dogs are built in some surprising ways.



FACTS 16–30

Body & Biology



16

Adult dogs have 42 teeth.

That's 10 more than an adult human. Puppies start with 28 baby teeth, which fall out and get replaced by about 6 months of age.

17

Dogs run warmer than we do.

A healthy dog's normal body temperature is about 101 to 102.5°F (38.3 to 39.2°C). A dog that feels warm to you may be perfectly normal.

18

Dogs sweat through their paws, but cool off by panting.

Dogs have sweat glands in their paw pads, which is why you may see damp paw prints on a hot day. But panting does most of the cooling work, by evaporating moisture from the tongue and airways.

19

Small dogs have faster heartbeats than big dogs.

A large dog's resting heart may beat around 60 to 100 times a minute. A tiny dog's can run well above 120. In general, the smaller the animal, the faster the heart.

20

Dogs have a third eyelid.

A thin membrane, called the nictitating membrane, sits in the inner corner of each eye. It sweeps across to protect the eye and spread tears, and you might glimpse it when your dog is sleepy.

Body & Biology



21

Some dogs' paws smell like corn chips.

That popcorn or tortilla-chip scent is real. It comes from normal bacteria and yeast living on the paws. It's harmless unless it comes with redness, swelling, or a strong, unpleasant odor.

22

That "thumb" on the leg has a name.

The small claw higher up on the inside of a dog's leg is called a dewclaw. Some dogs use their front dewclaws to grip toys, bones, and even the ground when turning fast.

23

Dogs walk on their toes.

Dogs are digitigrade, meaning they stand and move on their toes rather than flat on their feet. This adds length to each stride and helps with speed.

24

Dogs drink with a backward tongue scoop.

When lapping, a dog curls the tip of its tongue backward and slaps it into the water. Pulling the tongue back up quickly lifts a column of water, which the dog snaps its mouth shut on. It's why drinking gets so messy.

25

Dogs don't have a connected collarbone.

In humans, the collarbone links the arm to the rest of the skeleton. In dogs it's tiny or missing, which lets the shoulder move freely and gives them a longer running stride.

Body & Biology



26

A dog pregnancy lasts about 9 weeks.

The average is around 63 days from conception to birth. Litters can range from a single puppy to more than a dozen.

27

A dog's tail is part of its spine.

The tail is made of small bones called vertebrae, ranging from about 6 to 23 depending on the dog. It's controlled by muscles and used for balance and communication.

28

Greyhounds can reach about 45 miles per hour.

That's roughly 72 kilometers per hour, making them the fastest dog breed. They can hit top speed within just a few strides.

29

Dogs very likely dream.

Dogs go through REM sleep, the stage of sleep linked with dreaming in humans. Those twitching paws and soft woofs may be your dog replaying its day.

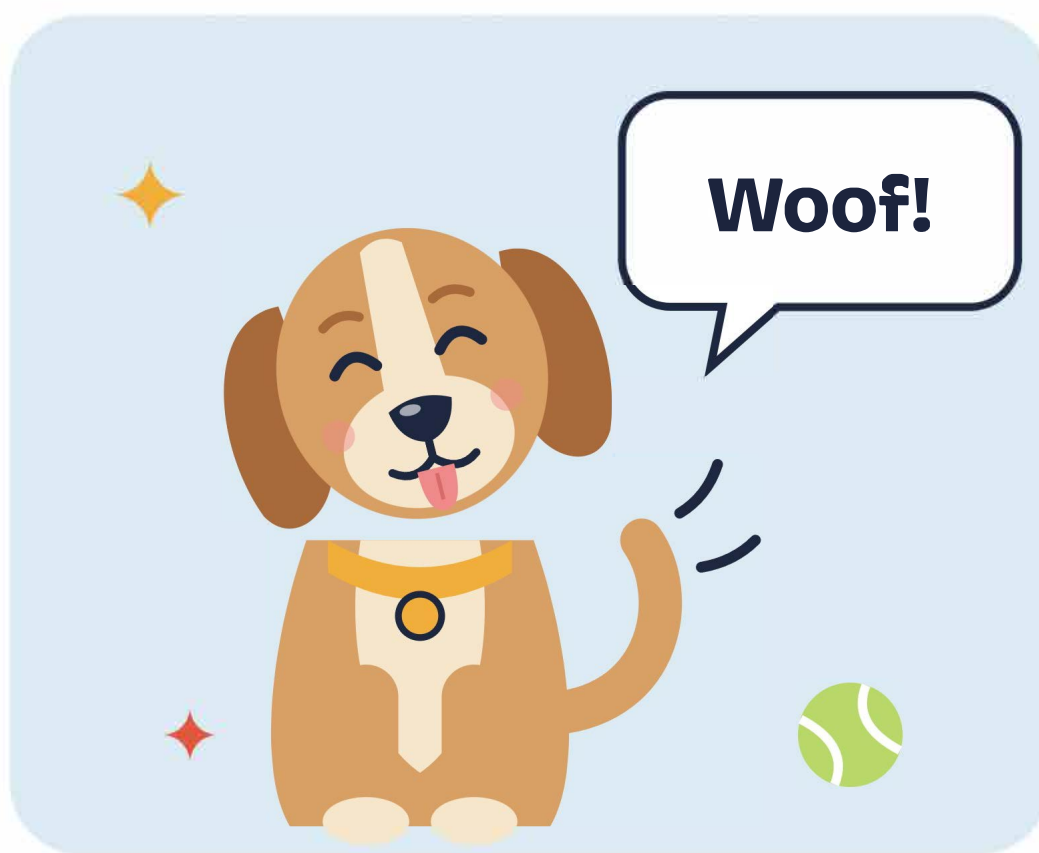
30

Dogs sleep about 12 to 14 hours a day.

Puppies and senior dogs can sleep even more, sometimes up to 18 hours. Dogs often sleep in short bursts throughout the day rather than one long stretch.

Behavior & Communication

Dogs are always talking. You just have to know how to listen.



FACTS 31–48

Behavior & Communication



31

The direction of a tail wag may matter.

Italian researchers found that dogs tend to wag more to their right when they see something they like, such as their owner. They wag more to the left when they see something that makes them uneasy.

32

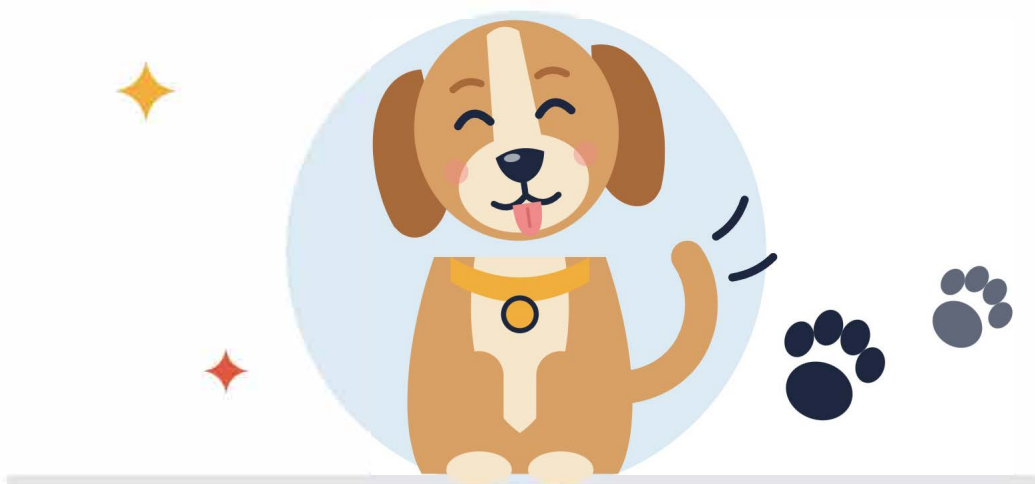
A wagging tail doesn't always mean a happy dog.

A loose, sweeping wag usually signals friendliness. A stiff, high, fast wag can mean the dog is alert or tense. Always read the whole body, not just the tail.

33

A yawn can be a stress signal.

Dogs yawn when they're tired, but also when they feel anxious, such as at the vet. Many dogs also catch yawns from their humans, especially from people they know.



Behavior & Communication



34

The play bow is an invitation.

When a dog drops its chest to the ground and keeps its rear end up, it's saying "let's play." Dogs often use it mid-play to show that rough moves are all in fun.

35

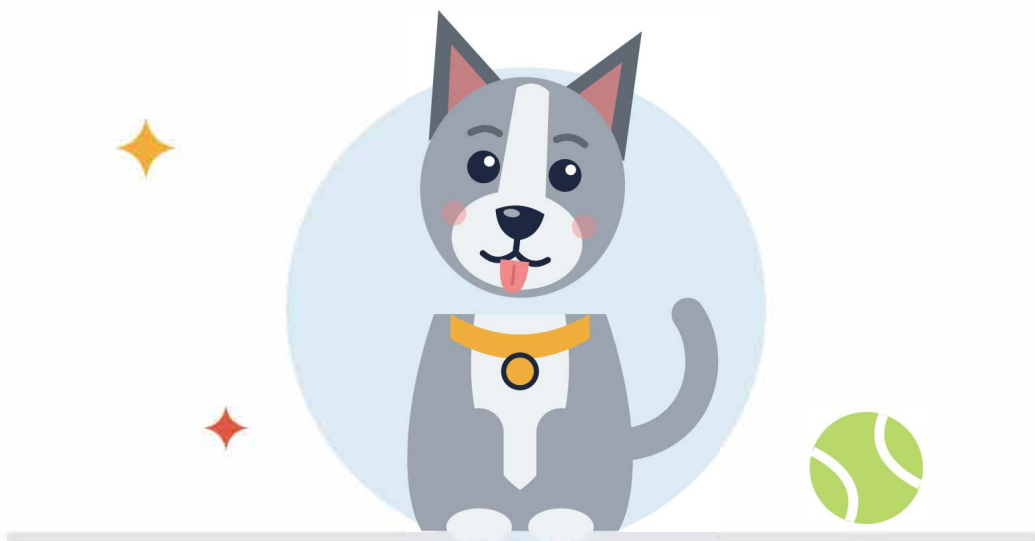
Dogs understand pointing.

Even young puppies can follow a human's pointing finger to find hidden food. Most animals, including our closest relatives the chimpanzees, struggle with this.

36

Dogs can learn a lot of words.

The average dog can learn around 165 words and signals, according to psychologist Stanley Coren. A Border Collie named Chaser learned the names of more than 1,000 toys.



Behavior & Communication



37

Dogs can read our facial expressions.

Studies show dogs can tell the difference between happy and angry human faces. They also tend to look at the left side of a person's face first, the side that tends to show more emotion.

38

"Puppy-dog eyes" evolved to win us over.

A 2019 study found dogs have a facial muscle that lifts the inner eyebrow, making their eyes look bigger and sadder. Wolves mostly lack it, which suggests humans favored dogs with this look over thousands of years.

39

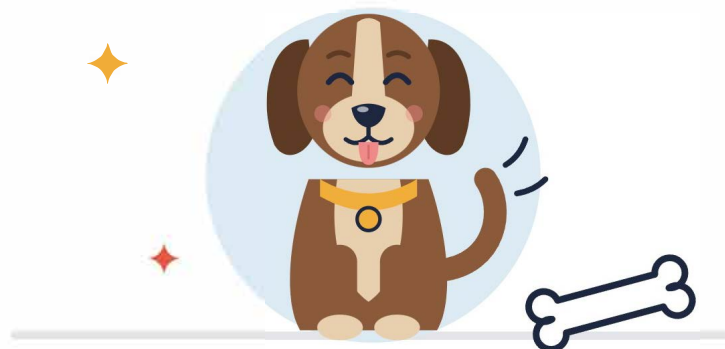
The head tilt is still a bit of a mystery.

Dogs may tilt their heads to hear a sound better or to see past their own muzzle. A 2022 study found that dogs who learn toy names easily tilt their heads more often when hearing those names.

40

Circling before lying down is an ancient habit.

Wild ancestors likely circled to flatten grass, check for threats, and find the right position. Your dog does it on a soft bed out of pure instinct.



Behavior & Communication



41

Kicking after pooping is a message.

Dogs have scent glands in their paws. Scratching the ground leaves both a scent mark and a visual mark that tells other dogs “I was here.”

42

Dogs may line up with Earth's magnetic field to poop.

A 2013 study of 70 dogs found they preferred to face north or south while relieving themselves, but only when the magnetic field was calm.

43

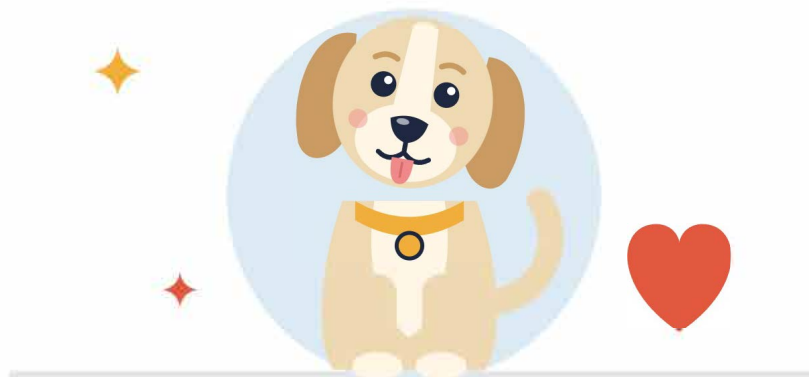
The zoomies have a scientific name.

Those sudden bursts of wild running are called Frenetic Random Activity Periods, or FRAPs. They're a normal way for dogs to release pent-up energy, often after a bath or at bedtime.

44

Sniffing rear ends is how dogs say hello.

Glands near a dog's tail produce a scent that carries information about sex, health, and maybe mood. A quick sniff tells another dog a lot about who they're meeting.



Behavior & Communication



45

Dogs can show jealousy.

In a 2014 study, dogs pushed, nudged, and even snapped at a realistic stuffed dog when their owners petted it. They reacted much less when owners paid attention to other objects.

46

Dogs have a sense of fairness.

In experiments, dogs stopped offering their paw when another dog got a treat for the same trick and they got nothing. Scientists call this inequity aversion.

47

Different barks mean different things.

Dogs change the pitch, length, and rhythm of their barks depending on the situation. In studies, people could often tell from recordings alone whether a dog was alone, playing, or facing a stranger.

48

Rolling in smelly things may be ancient camouflage.

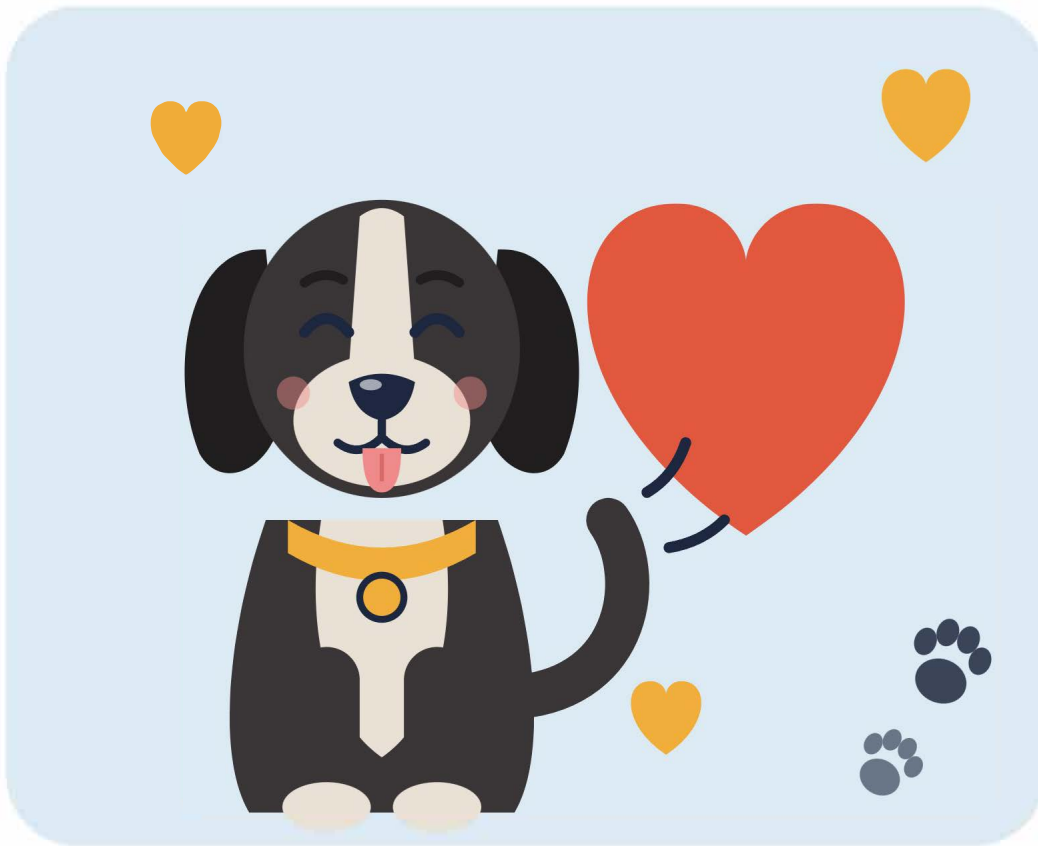
One theory is that wild ancestors rolled in strong odors to hide their own scent while hunting. Another is that dogs simply enjoy wearing interesting smells to share with the pack.



Dogs & Humans

History and the Bond

No other animal has walked beside us for as long, or in as many ways, as the dog.



FACTS 49–62

Dogs & Humans



49

Dogs didn't come from modern wolves.

Genetic studies suggest dogs and today's gray wolves share a common ancestor: an ancient wolf population that has since died out. Dogs are more like wolves' cousins than their descendants.

50

Dogs were the first animal humans domesticated.

Dogs joined human life at least 15,000 years ago, and possibly more than 20,000. That's thousands of years before people farmed crops or kept sheep, goats, or cattle.

51

One of the oldest known pet dogs was nursed through illness.

A dog buried with two people near Bonn, Germany, around 14,000 years ago had suffered from canine distemper as a puppy. It could only have survived with months of human care.



Dogs & Humans



52

Ancient Egyptians mummified dogs.

Millions of dog mummies have been found at a single site near Saqqara. Some beloved pets were buried with collars, and records show some had names.

53

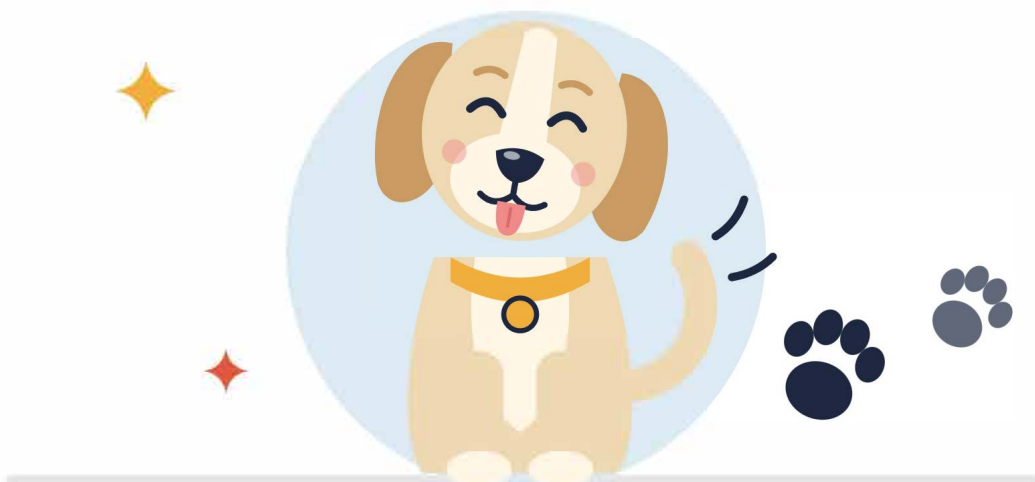
Looking into your dog's eyes boosts love hormones in both of you.

A 2015 study found that when dogs and owners gazed at each other, oxytocin levels rose in both. Oxytocin is the same hormone that helps parents bond with babies.

54

Dog owners may live longer.

A 2019 review of studies covering millions of people found dog owners had about a 24% lower risk of dying from any cause during the study periods. Researchers point to more walking, less stress, and more social contact.



Dogs & Humans



55

A dog was the first animal to orbit Earth.

Laika, a stray from the streets of Moscow, flew aboard the Soviet Sputnik 2 in 1957. Her mission helped prove that living beings could survive launch and weightlessness.

56

Sled dogs saved a town in 1925.

When diphtheria broke out in Nome, Alaska, relay teams of sled dogs carried life-saving medicine about 674 miles in under six days. Balto ran the final leg and became famous, but a husky named Togo covered the longest and most dangerous stretch.

57

Three dogs survived the Titanic.

Two Pomeranians and a Pekingese made it onto lifeboats with their owners in 1912. Small enough to carry, they were likely tucked into coats and blankets.

58

Hachikō waited nearly 10 years for his owner.

This Akita met his owner at Tokyo's Shibuya Station every day. After the professor died suddenly in 1925, Hachikō kept returning to the station until his own death in 1935. A statue honors him there today.



Dogs & Humans



59

Dogs' brains process voices much like ours.

Brain scans of dogs show areas that respond specifically to voices and to the emotion in them, in regions similar to those humans use.

60

A stray became a decorated war hero.

Sergeant Stubby, a stray adopted by U.S. soldiers, served in World War I. He warned troops of gas attacks and found wounded soldiers, and is often called the most decorated dog of the war.

61

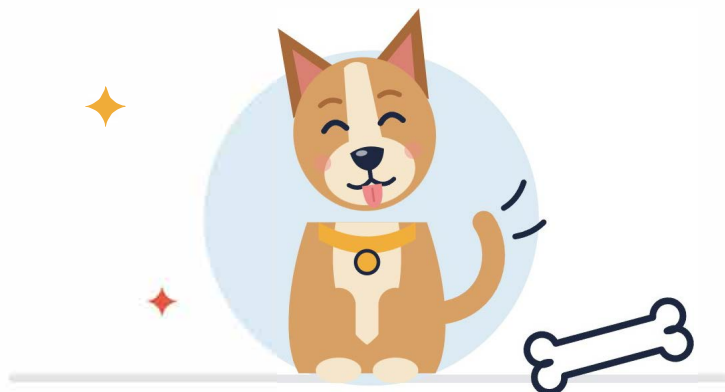
Some dogs love praise as much as food.

In brain-scanning studies at Emory University, many dogs showed reward responses to their owner's praise that were as strong as, or stronger than, their response to food.

62

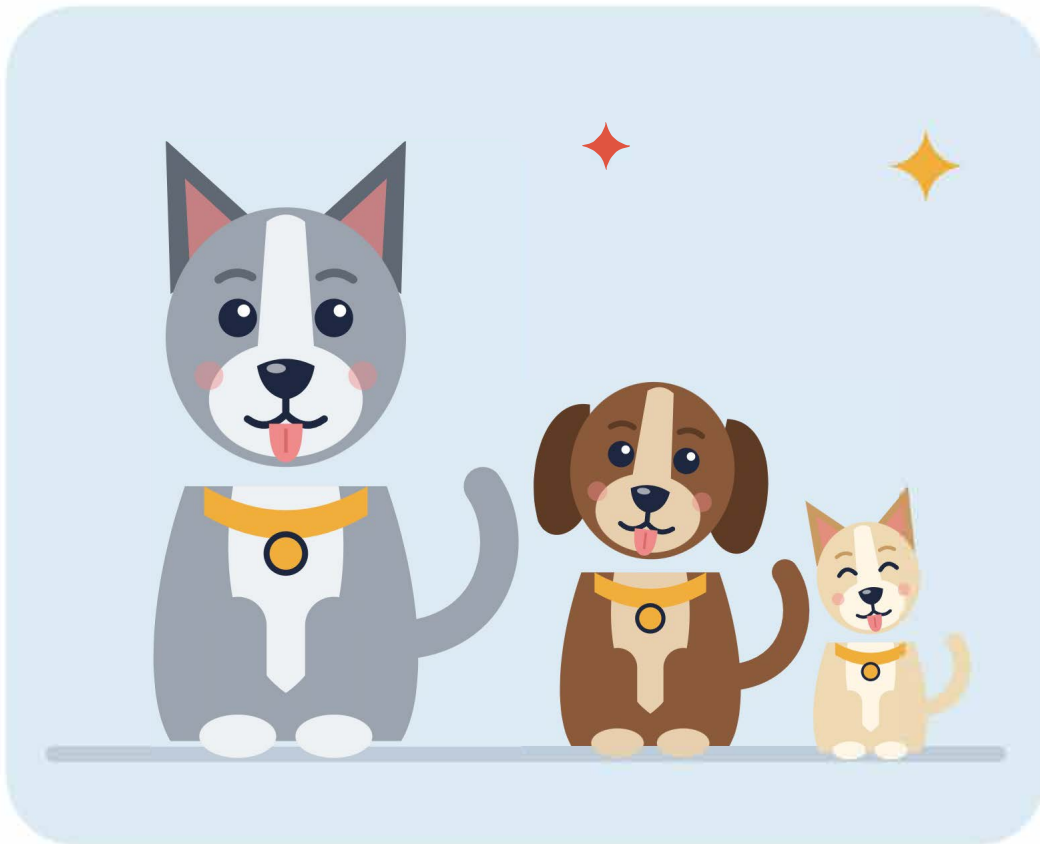
There are around 900 million dogs on Earth.

Most of them are not pets. Experts estimate that the majority are free-roaming dogs living alongside people in villages and cities around the world.



Breeds & Puppies

No other species comes in as many shapes and sizes as the dog, and every one of them starts out as a tiny, helpless puppy.



FACTS 63–76

Breeds & Puppies



63

There are hundreds of recognized dog breeds.

The American Kennel Club recognizes about 200 breeds. The international Fédération Cynologique Internationale recognizes more than 350.

64

The Basenji doesn't bark. It yodels.

This ancient African breed has an unusually shaped voice box. Instead of barking, it makes a unique yodel-like sound often called a “baroo.”

65

Some dogs have blue-black tongues.

Chow Chows and Chinese Shar-Peis are known for their dark blue to black tongues. Their puppies are born with pink tongues that darken as they grow.

66

Dalmatian puppies are born without spots.

Dalmatians are born pure white. Their famous spots start to appear within the first couple of weeks and keep developing for months.



Breeds & Puppies



67

Puppies are born blind and deaf.

Their eyes usually open at around 10 to 14 days old, and their ear canals open at around 2 to 3 weeks. Until then, they rely on touch and smell to find their mother.

68

Newborn puppies can't keep themselves warm.

For the first weeks of life, puppies can't properly regulate their body temperature. That's why they pile together and stay close to their mother.

69

Puppies have a key window for learning about the world.

Roughly between 3 and 14 weeks of age, puppies are especially open to new people, places, sounds, and animals. Good experiences during this time help shape a confident adult dog.



Breeds & Puppies



70

A Bloodhound's nose has been trusted in court.

Bloodhounds are such reliable scent trackers that, in some U.S. cases, evidence from their trailing work has been allowed in court.

71

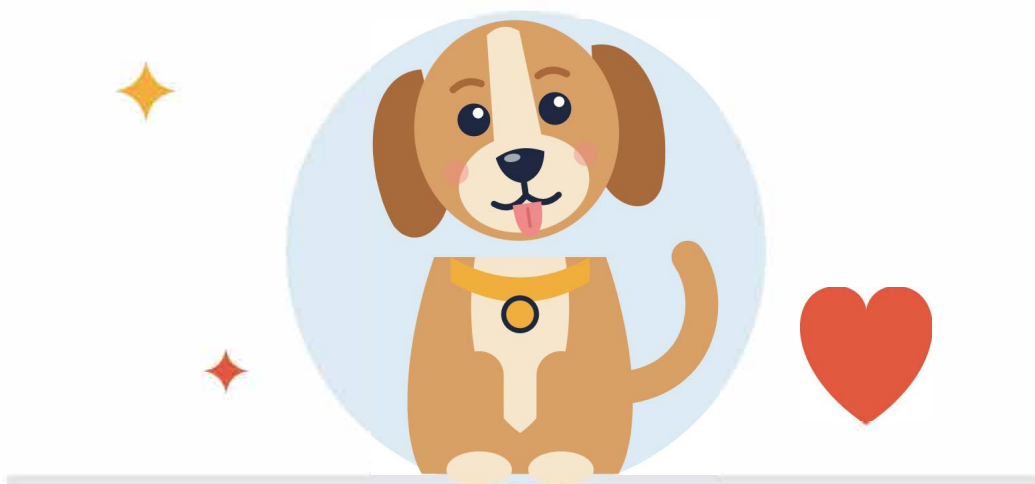
The Norwegian Lundehund is built for climbing cliffs.

This breed has six toes on each foot, can fold its ears shut, and can bend its head back until it nearly touches its spine. It was bred to hunt puffins on steep, rocky cliffs.

72

The tallest dog on record stood 44 inches at the shoulder.

Zeus, a Great Dane from Michigan, was named the world's tallest dog by Guinness World Records. Standing on his hind legs, he was taller than most adults.



Breeds & Puppies



73

Small dogs usually live longer than big dogs.

In most mammals, bigger species live longer. Dogs are the opposite: many small breeds live into their mid-to-late teens, while giant breeds often live 7 to 10 years.

74

The oldest dog on record lived to 29.

Bluey, an Australian Cattle Dog, lived 29 years and 5 months, according to Guinness World Records. She spent her life herding sheep and cattle in Australia and died in 1939.

75

The French Bulldog is America's most popular breed.

In 2022, the French Bulldog took the top spot in the American Kennel Club's rankings, ending the Labrador Retriever's 31-year run at number one.

76

The Poodle's fancy haircut had a practical purpose.

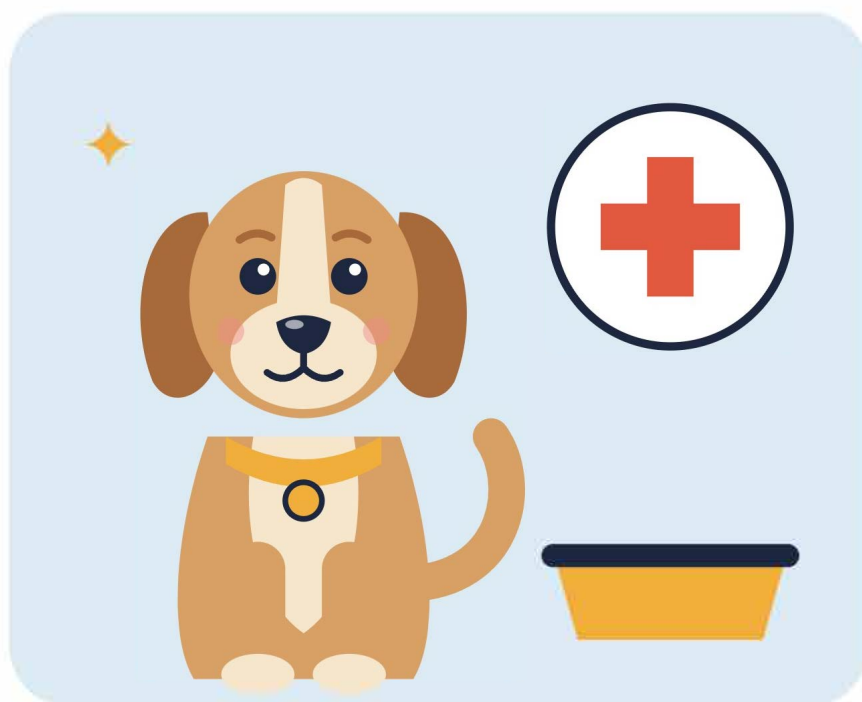
Poodles were bred as water retrievers in Germany. The traditional clip left fur around the joints and chest to keep them warm in cold water, while shaving the rest made swimming easier.



Health & Safety

Facts That Could Save a Life

Some dog facts are fun. These ones are important. Share them with every dog owner you know.



Keep this number handy

If you think your dog has eaten something toxic, call your vet or the ASPCA Animal Poison Control Center at (888) 426-4435 right away. A consultation fee may apply. Don't wait for symptoms to appear.

Health & Safety



77

Chocolate is toxic to dogs, and darker is worse.

Chocolate contains theobromine, which dogs process very slowly. Dark chocolate and baking chocolate are the most dangerous, and even a small amount can be serious for a small dog.

78

Xylitol can be deadly, even in tiny amounts.

This sugar substitute is found in some sugar-free gum, candy, baked goods, and even certain peanut butters. In dogs, it can cause a sudden, dangerous drop in blood sugar and liver damage. Always check labels.

79

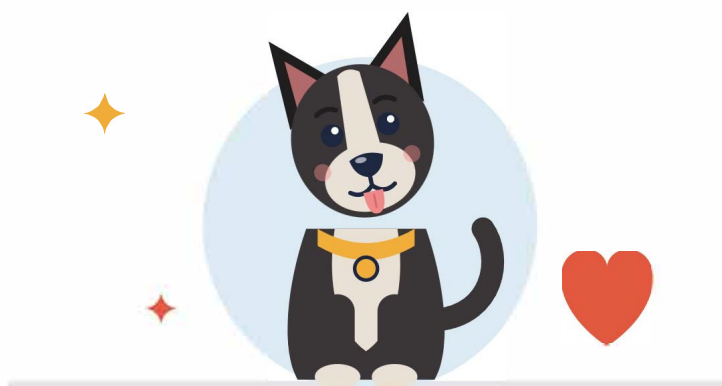
Grapes and raisins can cause kidney failure.

Even small amounts have made some dogs seriously ill, and there's no known safe amount. Researchers believe tartaric acid in the fruit may be the cause.

80

Onions and garlic damage red blood cells.

Onions, garlic, chives, and leeks can harm a dog's red blood cells and lead to anemia. This includes powdered forms often found in seasoning and leftovers.



Health & Safety



81

Macadamia nuts can make dogs wobbly and weak.

Eating macadamia nuts can cause weakness, vomiting, tremors, and fever in dogs. Symptoms usually appear within 12 hours.

82

Common human painkillers are dangerous for dogs.

Ibuprofen, naproxen, and acetaminophen can cause stomach ulcers, kidney damage, or liver damage in dogs. Never give your dog human medicine without asking your vet.

83

A parked car heats up fast, even on a mild day.

On a 70°F (21°C) day, the inside of a car can reach about 89°F (32°C) in just 10 minutes and over 100°F (38°C) in 30 minutes. Cracking a window barely helps.

84

Pavement can burn paws.

When the air is 77°F (25°C), asphalt in direct sun can reach about 125°F (52°C). A simple test: press the back of your hand on the ground for 7 seconds. If it's too hot for you, it's too hot for paws.



Health & Safety



85

Dogs are experts at hiding pain.

This instinct comes from ancestors who couldn't afford to look weak. Watch for subtle signs like hiding, licking one spot, panting at rest, changes in appetite, or reluctance to jump or climb stairs.

86

Bloat is a true emergency.

Gastric dilatation-volvulus, or GDV, happens when the stomach fills with gas and twists. It's most common in large, deep-chested breeds. Signs include a swollen belly, restlessness, and trying to vomit without bringing anything up. Get to a vet immediately.

87

Most dogs have dental disease by age 3.

Plaque and tartar can lead to painful gum disease and may affect other organs over time. Regular brushing and vet dental checks make a big difference.

88

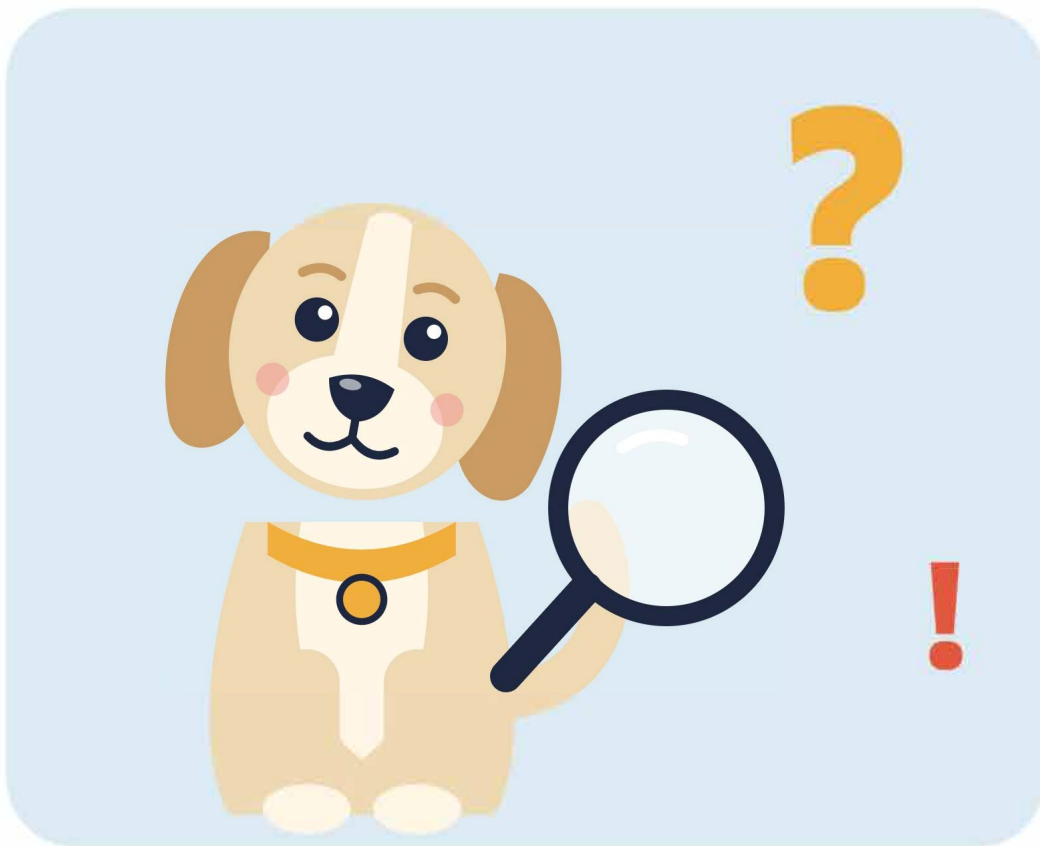
A microchip is not a GPS tracker.

A microchip stores an ID number that a vet or shelter can scan to find your contact details. It only works if your information in the chip registry is up to date, so check it after every move or phone change.



Myth Busters

You've probably heard some of these “facts” before. Here's what science actually says.



FACTS 89–100



89

MYTH

Dogs see only in black and white.

The truth: Dogs see color, just fewer colors than we do. They have two types of color-sensing cells instead of our three, so they see mainly blues and yellows. Reds and greens look more like shades of brown or gray to them.

90

MYTH

One dog year equals seven human years.

The truth: Dogs age fastest early on. A dog's first year is roughly equal to 15 human years, and the second adds about 9 more. After that, each year equals about 4 to 5 human years, depending on the dog's size.

91

MYTH

A dog's mouth is cleaner than a human's.

The truth: It isn't cleaner, just different. Dogs and humans each carry hundreds of types of bacteria in their mouths, and some can pass between species.



Myth Busters



92

MYTH

A warm, dry nose means a sick dog.

The truth: A dog's nose can be warm or dry for many harmless reasons, like sleeping or lying in the sun. Better signs of illness are changes in energy, appetite, or behavior.

93

MYTH

You can't teach an old dog new tricks.

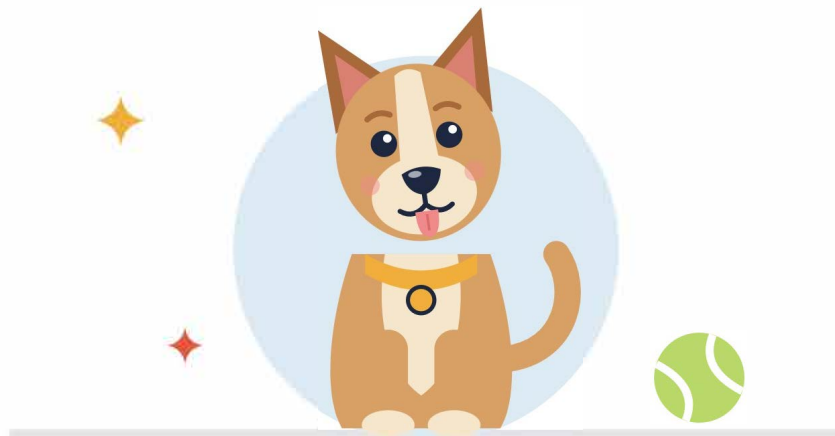
The truth: Dogs can learn at any age. Older dogs may learn a little more slowly, but training keeps their minds sharp and can help slow age-related mental decline.

94

MYTH

Dogs eat grass because they feel sick.

The truth: Grass-eating is very common and usually normal. In one large survey, most grass-eating dogs showed no signs of illness beforehand, and only a small share vomited afterward.



Myth Busters



95

MYTH

That “guilty look” means your dog knows it did wrong.

The truth: In a 2009 study, dogs looked just as “guilty” when scolded for something they hadn’t done. The look is most likely a response to your tone and body language, not a sign of guilt.

96

MYTH

You need to be the “alpha” of your dog.

The truth: The alpha idea came from studies of unrelated captive wolves. Wild wolf packs are actually families led by parents, and the scientist who popularized the term later spoke out against it. Modern research shows reward-based training works better.

97

MYTH

Shaving a double-coated dog keeps it cool.

The truth: Breeds like Huskies and Golden Retrievers have double coats that help protect them from both cold and heat. Shaving can interfere with that natural insulation and expose skin to sunburn. Regular brushing is the better way to help.



Myth Busters



98

MYTH

Letting a dog lick its wounds helps them heal.

The truth: Licking can introduce bacteria, reopen wounds, and slow healing. That's why vets use cones and recovery suits after surgery.

99

MYTH

A dog that rolls over always wants a belly rub.

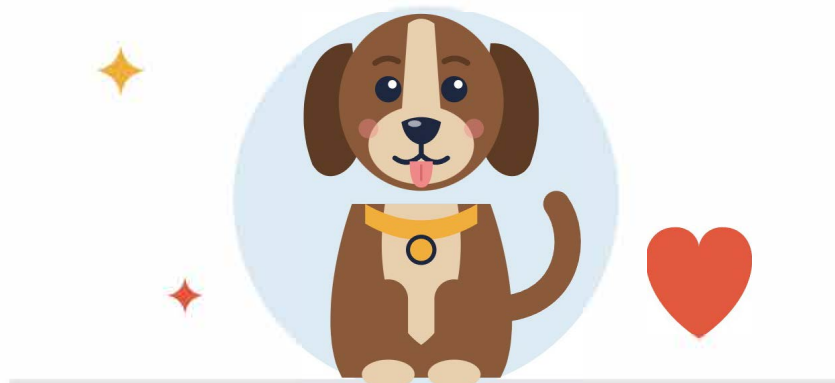
The truth: Sometimes it does. But rolling over can also be a way of saying “I’m not a threat,” especially around strangers. Look for a relaxed, wiggly body before diving in.

100

MYTH

Your dog only loves you because you feed it.

The truth: Science says otherwise. Brain scans show many dogs respond to their owner's praise as strongly as to food. Their love hormones rise when they look into your eyes, and they recognize your voice and your face. The bond is real, and it goes both ways.





THE END, FOR NOW

A Final Word

After 100 facts, one thing is clear: dogs are far more complex, capable, and connected to us than most people realize. They smell our illnesses, read our faces, and have shaped human history right alongside us.

The best way to use what you've learned is to put it into practice. Notice your dog's tail, ears, and yawns. Keep the dangerous foods out of reach. And the next time someone tells you dogs only see in black and white, you'll know better.

Thank you for reading. Now go give your dog a scratch behind the ears. They've earned it.

YOUR NEXT STEP

Want to Go Further?



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