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# About Cats



# **About Cats**

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# About Cats

*Cat behavior, attractants, breeds, health, lovers, types, cats as pets, fictional cats, films about cats, historical cats.*

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## 1 Cat

### Conservation status: Domesticated

Kingdom: Animalia  
Phylum: Chordata  
Class: Mammalia  
Order: Carnivora  
Family: Felidae  
Genus: *Felis*  
Species: *F. silvestris*  
Subspecies: *F. s. catus*  
Trinomial name

### *Felis silvestris catus*

(Linnaeus, 1758)

The **cat**, also called the **domestic cat** or **house cat**, is a small feline carnivorous mammal of the subspecies *Felis silvestris catus*. Its most immediate pre-domestication ancestor is the African wild cat, *Felis silvestris lybica*. The cat has been living in close association with humans for at least 3,500 years; the Ancient Egyptians routinely used cats to keep mice and other rodents (mostly rats) away from their grain (and also believed that cats were sacred to the goddess Bastet). The history of the domestic cat may stretch back even further, as 8,000-year-old bones of humans and cats were found buried together on the island of Cyprus<sup>[3]</sup>.

A group of cats is referred to as a *clowder*, while a male cat is called a *tom*, and a female is called a *queen* or *quean*. An immature cat is called a *kitten* (which is also an alternate name for young rats, rabbits, hedgehogs, beavers, and squirrels). A cat whose ancestry is formally registered is called a [purebred cat](#), a [pedigree cat](#), or a [show cat](#) (although not all show cats are pedigree or purebred). In strict terms, a purebred cat is one whose ancestry contains only individuals of the same breed. A pedigree cat is one whose ancestry is recorded, but may have ancestors of different breeds.

Purebreds are less than one percent of the total feline population; cats of mixed ancestry are referred to as [domestic longhairs](#) and [domestic shorthairs](#) or commonly as random-bred, moggies, mongrels, mutt-cats or alley cats. The ratio of pedigree/purebred cats to random-bred cats varies from country to country.

There are [dozens of breeds](#) of domestic cats, some [hairless](#) or [tailless](#), and they exist in a variety of different colors including multicolored. They are skilled predators and have been known to hunt over one thousand different species for food. They are also intelligent animals: some are able to manipulate simple mechanisms such as lever-handled doors and flush toilets. They communicate by calling ("meow"/"miaou"), [purring](#), hissing, and gesturing. Because the domestication of the cat is relatively recent, cats may also still live effectively in the wild, often forming small colonies. The cat's association with humans leads it to figure prominently in the mythology and legends of several cultures, including the ancient Egyptians, Vikings, and Chinese.

## Characteristics

### Physical

Cats typically weigh between 2.5 and 7 kg (5.5–16 lb); however, some breeds, such as the [Maine Coon](#) can exceed 11.3 kg (25 pounds). Some have been known to reach up to 23 kg (50 lb), due to overfeeding. This is very unhealthy for the cat, and should be prevented through diet and exercise (playing), especially for cats living exclusively indoors.

In captivity, indoor cats typically live 15 to 20 years, though the oldest-known cat lived to age 36.<sup>[4]</sup> Domestic cats tend to live longer if they are not permitted to go outdoors (reducing the risk of injury from fights or accidents) and if they are [spayed or neutered](#). Spaying and neutering a cat also decreases the risk of testicular and ovarian cancer, and female cats spayed before their first heat or litter benefit from reduced risk of mammary cancer.<sup>[5]</sup> [Feral cats](#) living in modern urban environments often live only two years, or less. Feral cats in maintained colonies can live much longer; the British Cat Action Trust reported a 19-year-old feral female. The oldest feral cat was Mark who was maintained by the British charity Cats Protection and who reached 26 years of age.

Thirty-two individual muscles in the ear allow for a manner of directional hearing; <sup>[6]</sup> the cat can move each ear independently of the other. Thus a cat can move its body in one direction and point its ears in quite another direction (such as pointing backward toward its owner). Most cats have straight ears pointing upward. Unlike dogs, flap-eared breeds are extremely rare. (Scottish Folds are one such exceptional genetic mutation.) When angry or frightened, a cat will lay its ears back, to accompany the growling or hissing sounds it makes. Cats conserve energy by sleeping more than most animals, especially as they grow older. Daily durations of sleep are various, usually 12–16 hours, with 13–14 being the average. Some cats can sleep as much as 20 hours in a 24-hour period. The term *cat nap* refers to the cat's ability to fall asleep for a brief period; someone who nods off for a few minutes is said to be "taking a cat nap".

Cats' temperament can vary depending on the breed and socialization. Shorter haired cats tend to be skinnier and more active, while cats with longer hair tend to be heavier and less active.

The normal body temperature of a cat is between 38 and 39 °C (101 and 102.2 °F).<sup>[1]</sup> A cat is considered febrile if it has a temperature of 39.5 °C (103 °F) or greater, or hypothermic if less than 37.5 °C (100 °F). Comparatively, humans have a normal temperature of approximately 37 °C (97 to 100 °F). A domestic cat's normal heart rate ranges from 140 to 220 beats per minute, and is largely dependent on how excited the cat is. For a cat at rest, the average heart rate should be between 150 and 180 bpm, depending upon level of activity.

A popular belief holds that cats always land on their feet. They do usually, but not always. During a fall, a cat can reflexively twist its body and right itself using its acute sense of balance and flexibility.<sup>[2]</sup> It always rights itself in the same way, provided it has the time to do so during a fall. Certain breeds that don't have a tail are a notable exception, since a cat moves its tail and relies on conservation of angular momentum to set up for landing.

Cats, like dogs, are digitigrades: they walk directly on their toes, the bones of their feet making up the lower part of the visible leg. They are capable of walking very precisely, placing each hind paw directly in the print of the corresponding forepaw, minimising noise and visible tracks.

Like many predators, cats have retractable claws. This is actually a misnomer because in their normal, relaxed position the claws are sheathed with the skin and fur around the toe pads. This is done to keep the claws sharp by preventing wear from contact with the ground. It is only by stretching, such as swatting at prey, that the connecting tendons are pulled taut, forcing the claws to extend. Thus extending the claws is an involuntary action.

## Senses

*Measuring the senses of any animal can be difficult, because there is usually no explicit communication (e.g., reading aloud the letters of a Snellen chart) between the subject and the tester.*

While a cat's senses of smell and hearing may not be as keen as, say, those of a mouse, they are superior in many ways to those of humans. These along with the cat's highly advanced eyesight, taste, and touch receptors make the cat extremely sensitive among mammals.

### Sight

Testing indicates that a cat's vision is superior at night in comparison to humans, and inferior in daylight. Cats, like dogs, have a *tapetum lucidum* that reflects extra light to the retina. While this enhances the ability to see in low light, it appears to reduce net visual acuity, thus detracting when light is abundant. In very bright light, the slit-like iris closes very narrowly over the eye, reducing the amount of light on the sensitive retina, and improving depth of field. The tapetum and other mechanisms give the cat a minimum light detection threshold up to 7 times lower than that of humans. Variation in color of cats' eyes in flash photographs is largely due to the interaction of the flash with the tapetum.

Average cats have a visual field of view estimated at 200°, versus 180° in humans, with a binocular field (overlap in the images from each eye) narrower than that of humans. As with most predators, their eyes face forward, affording depth perception at the expense of field of view. Field of view is largely dependent upon the placement of the eyes, but may also be related to the eye's construction. Instead of the fovea which gives humans sharp central vision, cats have a central band known as the visual streak. Cats can apparently differentiate among colors, especially at close range, but without appreciable subtlety.

Cats have a third eyelid, the nictitating membrane, which is a thin cover that closes from the side and appears when the cat's eyelid opens. This membrane partially closes if the cat is sick; although in a sleepy, content cat this membrane is often visible. If a cat chronically shows the third eyelid, it should be taken to a veterinarian.

## **Hearing**

Humans and cats have a similar range of hearing on the low end of the scale, but cats can hear much higher-pitched sounds, even better than dogs. Cats can hear 2 octaves higher than humans, and one-half octave higher than dogs. When listening for something, a cat's ears will swivel in that direction; a cat's ear flaps (pinnae) can independently point backwards as well as forwards and sideways to pinpoint the source of the sound. Cats can judge within three inches (7.5 cm) the location of a sound being made one yard (approximately one meter) away.

## **Smell**

A domestic cat's sense of smell is about 14 times stronger than a human's. Cats have twice as many smell-sensitive cells in their noses as people do, which means they can smell things we are not even aware of. Cats also have a scent organ in the roof of their mouths called the vomeronasal, or Jacobson's, organ. When a cat wrinkles its muzzle, lowers its chin, and lets its tongue hang a bit, it is opening the passage to the vomeronasal. This is called gaping. Gaping is the equivalent of the Flehmen response in other animals, such as dogs and horses.

## **Touch**

Cats generally have about a dozen whiskers in four rows on each upper lip, a few on each cheek, tufts over the eyes and bristles on the chin. Whiskers may also be found on the cat's "elbows." The Sphynx (a nearly hairless breed) may have full length, short, or no whiskers at all.

Whiskers (technically called vibrissae) can aid with navigation and sensation. Whiskers may detect very small shifts in air currents, enabling a cat to know it is near obstructions without actually seeing them. The upper two rows of whiskers can move independently from the lower two rows for even more precise measuring.

It is thought that a cat may choose to rely on the whiskers in dim light where fully dilating the pupils would reduce its ability to focus on close objects. The whiskers also spread out roughly as wide as the cat's body making it able to judge if it can fit through an opening.

Whiskers are also an indication of the cat's attitude. Whiskers point forward when the cat is inquisitive and friendly, and lie flat on the face when the cat is being defensive or aggressive.

## Taste

According to *National Geographic* (December 8), cats cannot taste sugary foods due to a faulty sweet receptor gene. Some scientists believe this is related to the cat's diet being naturally high in protein, though it is unclear whether it is the cause or the result of it.

## Communication

The unique sound a small cat makes is written onomatopoeically as "meow" in American English; "meow" or "miaow" in British English; "miaou" or "miaw" in French; "miao" in Mandarin Chinese and Italian; "miau" in German, Spanish, Finnish, Lithuanian, Polish, Croatian, Romanian and Portuguese; "miau" or "מִיאוּ" in Hebrew; "miyav" in Turkish; "mjäú" in Estonian; "mowa'a" in Arabic; "nyaa" or "nyan" in Japanese; "meong" or "ngeong" in Bahasa Indonesia; "ngiau" in Malay; "yaong" or "nyaong" in Korean; and various ways in other languages. The sound of an increasingly annoyed cat is transcribed in James Joyce's *Ulysses* as "mkgnao", "mrkgnao" and "mrkrgrnao" [\[1\]](#), and the sound made by Pixel, the title character of Robert A. Heinlein's *The Cat Who Walks Through Walls*, was written as "blert", while the sound made by Bill the Cat in Berkeley Breathed's comic strip *Bloom County* was generally described as "ack". The cat's pronunciation of this call varies significantly depending on meaning. Usually cats call out to indicate pain, request human attention (to be fed or played with, for example), or as a greeting. Some cats are very vocal, and others rarely call out. Cats are capable of about 100 different vocalisations, compared to about 10 for dogs.

A kitten's call first starts out as a high-pitched squeak-like sound when very young, and then deepens over time. Some cats, however, do not exercise their voices a lot, so their call may remain similar to that of a kitten through adulthood.

Cats can also produce a [purring](#) noise that typically indicates that the cat is happy, but also can mean that it feels distress. Cats purr among other cats—for example, when a mother meets her kittens. Until recently, there were many competing theories to explain how cats purr, including vibration of the cat's false vocal chords when inhaling and exhaling, the sound of blood hitting the aorta, vibration of the hyoid apparatus, or resonance directly in the lungs. Currently, though, it is believed that [purring](#) is a result of rhythmic impulses to the cat's larynx.

It is possible for a cat to call out and purr simultaneously, although this is typical only in very vocal cats. In addition to purring, happy cats may blink slowly or partially close their eyes to break any possible stares and communicate their ease in the situation. However, purring may also be a way for the cat to calm itself down. For example, cats have been known to purr when hurt.

Most cats growl or hiss when angered or in danger. Some may engage in nipping behavior or batting with their paws, either with claws extended or retracted. With cats who are improperly socialised and do not know their own strength, this can result in inadvertent

damage to human skin. Cat scratches can easily become infected, and in extreme cases can result in cat scratch fever.

Cats are also known to make chirping noises when observing prey, or as a means of expressing interest in an object to nearby humans. When directed at out-of-reach prey, it is unknown whether this is a threatening sound, an expression of frustration, or an attempt to replicate a birdcall (or replicate the call of a bird's prey, for example a cicada). Since this feline expression often involves a mouth movement similar to the one they would use to kill their prey (their "killing bite"), they may be trying to practice this mouth movement in anticipation.

When passing solid waste, cats, like many types of predators, release from anal glands a small amount of liquid that scents their feces, to mark their territory. These scent-producing anal sacs are found in all predators; those of the skunk are used for self-defense, for example. During moments of excitement or other strong emotions, a cat's anal sac may discharge, releasing a foul-smelling brown liquid. Anal irritation, possibly shown by the cat rubbing its bottom on the floor and frequent licking of the area, can be a sign that the cat's anal sacs are not being emptied when waste passes [\[10\]](#). Although this condition can be treated through the addition of a small amount of bran to each meal, it may require veterinary attention. Shorthair cats are more prone to this problem.

Cats will twitch the tips of their tails when hunting or angry, while larger twitching indicates displeasure. A tail held high is a sign of happiness, while half-raised shows less pleasure, and unhappiness is indicated with a tail held low. A scared cat may puff up its tail and the hair along its back and turn its body sideways to a threat in order to increase its apparent size. Tailless cats, such as the [Manx \(cat\)](#), who possess only a small stub of a tail move the stub around as though they possessed a full tail, though it is not nearly as communicative as that of a fully tailed cat. Touching noses is a friendly greeting for cats, while a lowered head is a sign of submission.

When cats are happy, they are known to paw their owners, or that on which they sit, with a kneading motion. Cats often use this action alongside purring to show contentment and affection for their owners. The action is often referred to as paddy-pawing, making muffins or treading paws. It is instinctive to cats, and they use it when they are young to stimulate the mother cat's nipple to release milk during nursing. As a result, cats that are hand-raised by humans may lack this reflex. Pawing is also a way for cats to mark their territory. The scent glands on the underside of their paws release small amounts of scent onto the person or object being pawed, marking it as "theirs" in the same way they would urinate to mark their territory.

## Hunting and diet

Relative to size, domestic cats are very effective predators. They ambush and dispatch vertebrate prey using tactics similar to those of leopards and tigers by pouncing; they then deliver a lethal neck bite with their long canine teeth that severs the victim's spinal cord, or asphyxiate it by crushing the windpipe.

The domestic cat can hunt and eat about one thousand species—many big cats will eat fewer than 100. Although, theoretically, big cats can kill most of these species as well, they

often do not due to the relatively low nutritional content that smaller animals provide. An exception is the leopard, which commonly hunts rabbits and many other smaller animals.

Cats have highly specialized teeth and a digestive tract suitable to the digestion of meat. The premolar and first molar together compose the carnassial pair on each side of the mouth, which efficiently functions to shear meat like a pair of scissors. While this is present in canines, it is highly developed in felines. The cat's tongue has sharp spines, or papillae, designed to retain and rip flesh from a carcass. These papillae are small backward-facing hooks that contain keratin and assist in their grooming. Unlike most carnivores, cats eat almost no vegetable matter apart from that found in the digestive tracts of their prey. Whereas bears and dogs commonly supplement their diet of meat with fruits, berries, roots, and honey when they can get them, cats feed exclusively on meat, usually freshly killed. Cats, including the great cats, have a genetic anomaly that prevents them from tasting sweetness [11], which is probably related to their meat-only habits.

In captivity, cats cannot be adapted to an unsupplemented vegetarian diet because they cannot synthesize all the amino acids they need from plant material. Specifically this applies to [taurine](#), the absence of which causes the cat's retina to slowly degenerate, causing eye problems and (eventually) irreversible blindness. This condition is called central retinal degeneration (CRD). Cow's milk is a poor source of taurine and adult cats are generally lactose intolerant. Lactose-free milk is perfectly safe, but still not a substitute for meat. This contrasts with domesticated dogs, which commonly are fed a mixture of meat and vegetable products and have been adapted in some cases to a vegetarian diet. Despite this, however, the majority of brand-name cat foods are primarily grain based, often containing large amounts of corn or rice and supplemented with meats and essential vitamins. Some vegetarian owners feed their cats a vegetarian diet containing supplemental taurine.

Cats are also known to munch on grass, leaves, shrubs and houseplants. They do not eat a lot in one sitting, but prefer to have it as a snack. Eating vegetation in this way may aid the cat's digestive system and can prevent hairballs. [12].

Cats can be fussy eaters. This mostly happens when the vomeronasal, or Jacobson's, organ becomes sensitized to a specific food, at which point the cat will reject any food that doesn't fit the pattern it is expecting. Additionally, cats have been known to develop a fondness for "people food" such as barbecued chicken, bread, french fries, pepperoni pizza, ice cream, tomato soup, carrot juice, olives, and carnitas burritos, as well as cat diet exotica such as corn kernels and diced cantaloupe. Many "people foods" are not good for cats; chocolate, for example, can be fatal due to the theobromine found in chocolate.

Domestic cats, especially young ones, are known for their love of string play. Many cannot resist a dangling piece of string, or a piece of rope drawn randomly and enticingly across the floor. This notorious love of string is often depicted in cartoons and photographs, which show kittens or cats playing with balls of yarn. This propensity is probably related to their hunting instinct. However, string is more often being replaced with a red dot laser pointer. This is because, if the string is ingested, it can be caught in the cat's stomach or intestines causing illness or, in extreme cases, death. Some people discourage the use of laser pointers for play with pets, however, because of the risk of eye damage and the loss of satisfaction (especially for cats) associated with the successful capture of prey.

Because of their small size, domestic cats pose almost no danger to humans—the only hazard is the possibility of infection (or, rarely, [rabies](#)) from a cat bite or scratch.

Cats can be destructive to ecosystems in which they are not native and whose species did not have time to adapt to their introduction. In some cases, cats have contributed to or caused extinctions — for example, see the case of the Stephens Island Wren.

## Hygiene

Cats are known for their cleanliness. They groom themselves by licking their fur. Their saliva is a powerful cleaning agent, but it can provoke allergic reactions in humans. Some people who are allergic to cats - typically manifested by hay fever, asthma or a skin rash - quickly acclimate themselves to a particular animal and live comfortably in the same house with it, while retaining an allergy to cats in general. Many cats also enjoy grooming humans or other cats. Some cats occasionally regurgitate hair balls of fur that have collected in their stomachs as a result of their grooming. Longhair cats are more prone to this than shorthairs. Hairballs can be prevented with certain cat foods and remedies that ease elimination of the hair. Cats expend nearly as much fluid grooming as they do urinating.

Indoor cats may be provided a [litter box](#) containing sand or similar commercial material ([litter](#)). This arrangement serves the same purpose as a toilet for humans. It should be cleaned daily and changed often (depending on the number of cats in a household and the type of litter—clumping litter stays cleaner longer, but has been reported to cause health problems in some cats. <sup>[13]</sup>) A litterbox is recommended for indoor-outdoor cats as well. Litterboxes may pose a risk of toxoplasmosis transmission to susceptible pregnant women and immuno-compromised individuals. Transmission risk may be reduced by daily litterbox cleaning.

In addition, some cats may be toilet trained, eliminating the litterbox and its attending expense and odor. Training involves two or three weeks of incremental moves, such as moving and elevating the litterbox until it is near the toilet. For a short time, an adapter, such as a bowl or small box, may be used to suspend the litter above the toilet bowl. When training is complete, the cat uses the toilet by perching over the bowl. <sup>[14]</sup>

Indoor cats will also benefit from being provided with a scratching post so they are less likely to ruin furniture with their claws.<sup>[15]</sup> Nails can be trimmed, but care should be taken to avoid cutting a vein in the quick of the claw.

## Declawing

*Main article: [onychectomy](#)*

Some cat owners choose to have their cat declawed (onychectomy). This major surgery removes the tip of each digit (from the first knuckle out) of the cat's forepaws. Some people are opposed to declawing, claiming it is inhumane. Declawing is not a simple procedure; serious complications can arise, such as an increased risk of infections, or life-long discomfort in the cat's paws. This operation is rare outside of North America. In Germany and Switzerland, declawing cats is explicitly forbidden by the laws against cruelty to animals.<sup>[16]</sup> In many other European countries, it is also forbidden under the terms of the European Convention for the Protection of Pet Animals, unless "a veterinarian considers

[such] non-curative procedures necessary either for veterinary medical reasons or for the benefit of any particular animal".<sup>[\[17\]](#)</sup>

Where it is legal, some cat veterinarians refuse to do this type of surgery because it deprives the cat of its main defense ability, although cats usually learn to donkey kick or rake with their hind claws in defense. Other experts mention difficulties with the cat's typical stretching and exercise habits, which can lead to muscle atrophy. Some doctors believe that a loss of the cat's claws causes a loss of its ability to balance on thin objects, such as rails or balconies. Declawing surgery requires anesthesia, which carries with it a small risk of death. Additionally, some experts believe that declawed cats are more inclined to bite. If a cat is not declawed at an early age, it becomes too dangerous to declaw them when they are older. However, many American cats are still declawed, often when the owner finds that it is the only option for keeping the cat (sometimes it is mandated by landlords). Some cats that are not declawed and cannot be retrained are either abandoned or turned in to animal shelters, where they may be euthanized. In Britain, where the prevailing style of ownership is indoor/outdoor, shelters find it difficult to rehome imported cats that had previously been declawed. One popular, relatively inexpensive alternative to declawing is the application of vinyl nail caps that are affixed to the claws with nontoxic glue, requiring periodic replacement when the cat sheds its claw sheaths (usually every four to six weeks).

## Environment

The wild cat, ancestor of the domestic cat, is believed to have evolved in a desert climate, as evident in the behavior common to both the domestic and wild forms. Wild cats are native to all continents other than Australasia and Antarctica. Their feces are usually dry, and cats prefer to bury them in sandy places. They are able to remain motionless for long periods, especially when observing prey and preparing to pounce. In North Africa there are still small wildcats that are probably related closely to the ancestors of today's domesticated breeds.

Cats enjoy heat and solar exposure, often sleeping in a warm area during the heat of the day. Cats like to be a lot warmer than humans do. People start to feel uncomfortable when their skin's temperature gets higher than about 44.5 °C (112 °F), but cats don't start to show signs of discomfort until their skin reaches about 52 °C (126 °F).

Being closely related to desert animals, cats can withstand the heat and cold of a temperate climate, but not for long periods. Although certain breeds such as the [Norwegian Forest Cat](#) and [Maine Coon](#) have developed more protection than others, they have little resistance against fog, rain and snow and struggle to maintain their 39 °C (102 °F) body temperature when wet. Most cats dislike immersion in water, but one exception is the [Turkish Van](#) cat. If a cat is continually exposed to water from a very young age, often it will develop a fondness for it; however, this rarely if ever occurs naturally.

## Reproduction and genetics

Cats are seasonally polyestrous, which means they may have many heat periods over the course of a year. A heat period lasts about 4 to 7 days if the female is bred; if she is not, the heat period lasts longer and recurs at regular intervals.

The male cat's penis has spines which point backwards. Upon withdrawal of the penis, the spines rake the walls of the female's vagina. The female needs this stimulation for ovulation to begin. Because of this, females are rarely impregnated by the first male with which they mate. Furthermore, cats are superfecund; that is, a female may mate with more than one male when she is in heat, meaning different kittens in a litter may have different fathers.

The gestation period for cats is approximately 60 days. The size of a litter averages three to five kittens, with the first litter usually smaller than subsequent litters. Kittens are weaned at between six and seven weeks, and cats normally reach sexual maturity at six months (females) to seven months (males).

Completely white cats (not due to albinism, but white because of the dominant epistatic white (**W**) gene) with two blue eyes have a forty percent probability of being born deaf.

The deafness is an effect of the **W** gene. This gene produces a white coat because it completely masks any other color or pattern the cat has. Blue irises can result, and they are linked to deafness.<sup>[\[18\]](#)</sup> Any cat that receives even one **W** from one parent may exhibit this. Blue eyes can also result from the form of albinism characteristic of the siamese breed; white cats from this genetic background, sometimes called *Foreign whites* or [Oriental Shorthairs](#) may not have a problem with deafness, but it can happen if the cat inherits the **W** gene. This also occurs with dogs if they have white coat and blue eyes, and in the case of dogs, it can be equally common for them to be born blind.<sup>[\[19\]](#)</sup> However, blindness in cats has not found to be associated with the **W** gene.<sup>[\[20\]](#)</sup> Often, blue eyes will lack a tapetum lucidum and thus will not reflect like colored cat eyes. This may diminish the cats' visual acuity, but the extent is not known. Humans with common albinism, white skin and blue eyes generally suffer from visual problems, but in Tietz syndrome they suffer from deafness.

Around 5% of all cats are completely white, of which 10%-20% are deaf. Very few survive in the wild because of all the hazards that they cannot avoid as easily as other cats would in the same situation. Many people believe that deaf white cats should not be used for breeding as it is not ethical to propagate such a disability, and instead deaf cats should be spayed or neutered to avoid passing the trait to their offspring.<sup>[\[21\]](#)</sup> Some breeds however, such as the [Turkish Angora](#) are based on all white cats and produce a higher percentage of deaf cats as a results. It was not until recently that colored [Turkish Angoras](#) were allowed to be shown, making deafness an issue in that breed. Apart from the [Turkish Angora](#), there are also many non-pedigree white cats that have odd eyes, i.e. one blue eye and one amber eye.

## Domestication

Like some other domesticated animals, cats live in a mutualistic arrangement with humans. Cats, however, have done so for a much shorter time than almost all other domesticated animals, and the degree of domestication of cats is somewhat disputed. Since the benefit of removing rats and mice from humans' food stores outweighed the cost of allowing a formerly wild animal to enjoy the relative safety of a human settlement, the relationship between cat and human flourished. Unlike the dog, which also kills rodents, the cat did not eat grains, fruits, or vegetables. A cat that is good at hunting rodents is referred to as a mouser.

The venerable simile "like herding cats" refers to the seeming intractability of the ordinary house cat to be trained in the manner of the dog. Despite occasional cohabitation in colonies, cats are lone hunters. It is no coincidence that cats are also "clean" animals, the chemistry of their saliva, expended in frequent grooming, acting as a natural deodorant. The "purpose" of this cleanliness is to help hide the cat's presence while stalking prey. A dog's odor, on the other hand, is an advantage, for a dog is a pack hunter; part of the pack stations itself upwind, and its odor drives prey towards the rest of the pack stationed downwind. This requires a cooperative effort, which in turn requires communications skills. No such communications skills are required of the lone hunter. Thus, communicating with such an animal is problematic, and cats in particular are labelled as opaque or inscrutable, if not obtuse, as well as aloof and self-sufficient. However, cats can be very affectionate towards their humans, especially if they imprint on them at a very young age and are treated with consistent affection.

Human attitudes toward cats vary widely. Some humans keep cats for companionship as pets. Some people (known as cat lovers) go to great lengths to pamper their cats, sometimes treating them almost as if they were children. When a cat bonds with its human owner, at times, the cat may display behaviors similar to that of the human. Such behavior may include a trip to the litter box before bedtime and snuggling up close to its companion in bed or on the sofa. Other behaviors could include mimicking sounds of the owner or using certain sounds the cat picks up from the human; sounds representing specific needs of the cat, which the owner would recognize. The cat may also be capable of learning to communicate with the human using non-spoken language or [body language](#) such as rubbing for affection (confirmation), facial expressions and making eye-contact with the owner if something needs to be addressed (e.g. finding a bug crawling on the floor for the owner to get rid of). Some owners like to train their cat to perform "tricks" commonly exhibited by dogs such as jumping.

Allergies to cat dander are one of the most common reasons people cite for disliking cats. However, in some instances, humans find the rewards of cat companionship outweigh the discomfort and problems associated with allergies. Many chose to cope with cat allergies by taking prescription allergy medicine and bathing their cats frequently, since weekly bathing will eliminate about 90% of the cat dander present in the environment. Recent studies have indicated the humans who are exposed to cats or dogs within the first year of their lives develop few animal allergies, while most adults who are allergic to animals did not have a cat or a dog as a pet in childhood.

In urban areas, some people find feral and free roaming pet cats annoying and intrusive. Unaltered animals can engage in persistent nighttime calling (caterwauling) and defecation or "marking" on private property. Indoor confinement of pets and TNR (Trap, Neuter, Return) programs for feral cats can help in this situation; some people also use [cat deterrents](#) to discourage cats from entering their property.

In rural areas, farms often have dozens of semi-feral cats. Hunting in the barns and the fields, they kill and eat rodents that would otherwise spoil large parts of the grain crop. Many pet cats successfully hunt and kill rabbits, rodents, birds, lizards, frogs, fish, and large insects by instinct, but might not eat their prey. They may even present such victims, dead or maimed, to a beloved owner, perhaps expecting their owner to praise or reward them, or possibly even complete the kill and eat the mouse.

Despite its reputation as a solitary animal, the domestic cat is social enough to form colonies, but does not attack in groups as do lions. Some breeds like bengal, [ocicat](#) and [manx](#) are very social, but these breeds are exceptions. While each cat holds a distinct territory (sexually active males having the largest territories, and neutered cats having the smallest), there are "neutral" areas where cats watch and greet one another without territorial conflict or aggression. Outside of these neutral areas, territory holders usually vigorously chase away strangers, at first by staring, hissing, and growling, and if that does not work by short but noisy and violent attacks. [Fighting cats](#) make themselves look larger by raising their fur and arching their backs. Attacks usually comprise powerful slaps to the face and body with the forepaws as well as bites, but serious damage is rarely done, and usually the loser runs away with little more than a few scratches to the face. Sexually active males may be engaged in many fights over their lives and often have decidedly weathered faces with obvious scars and cuts to the ears and nose. Not only males will fight; females will also fight over territory or to defend their kittens and even neutered cats will defend their small territories vigorously.

## Feral cats

[Feral cats](#) may live alone, but most are found in large groups called [feral colonies](#) with communal nurseries, depending on resource availability. Many lost or abandoned pet cats join these colonies out of desperation. The average lifespan of these feral cats is much shorter than a domestic housecat, which can live an average of sixteen years or more. Urban areas are not native environments to the cat; most domestic cats were artificially selected from cats in desert climates and were distributed throughout the world by humans, but some feral cat colonies are found in large cities, for example, around the Colosseum and Forum Romanum in Rome. Although cats are adaptable, feral felines are unable to thrive in extreme cold and heat, and with a protein requirement of about 90%, few find adequate nutrition on their own in cities. In addition, they have little defense or understanding of the dangers from dogs, coyotes, and even automobiles. However, there are thousands of volunteers and organizations that trap these unadoptable feral felines, [spay or neuter](#) them, immunize the cats against rabies and [feline leukemia](#), and treat them with long-lasting [flea](#) products. Before release back into their feral colonies, the attending veterinarian nips the tip off one ear to mark the feral as spayed/neutered and inoculated, as these cats will more than likely find themselves trapped again. Volunteers continue to feed and give care to these cats throughout their lives, and not only is their lifespan greatly increased, but behavior and nuisance problems, due to competition for food, are also greatly reduced. In time, if an entire colony is successfully spayed and neutered, no additional kittens are born and the feral colony disappears. Many hope to see an end to urban feral cat colonies through these efforts.

## Environmental issues

The environmental impact of feral cat programs and of indoor/outdoor cats is a subject of debate. Part of this stems from humane concern for the cats themselves and part arises from concerns about cat predation on endangered species. Nearly all studies agree that

abandoned animals lead hard lives. Owners who can no longer keep their cats would do best to give them to friends, rescue organizations, or shelters.

The amount of ecological damage done by indoor/outdoor cats depends on local conditions. The most severe impact occurs with island ecologies. Serious concerns also exist in places such as Florida where housecats are not native, where several small sized endangered species live near human populations, and where the climate allows cats to breed throughout the year. Environmental concerns may be minimal in most of England where cats are an established species and few to none of the local prey species are endangered.

Pet owners can contact veterinarians, ecological organizations, and universities for opinions about whether local conditions are suitable for outdoor cats. Additional concerns include potential dangers from larger predators and infectious diseases. Coyotes kill large numbers of housecats in the Southwestern United States, even in urban zones. FELV (feline leukemia), FIV (feline immunodeficiency virus), or rabies may be present in the area. If faced with conflicting evidence, the safe choice is to keep a cat indoors. Experts recommend a gradual transition to indoor life for cats who are accustomed to going outside.

## Scientific classification

The domestic cat was named *Felis catus* by Carolus Linnaeus in his *Systema Naturae* of 1758. Johann Christian Daniel von Schreber named the wild cat *Felis silvestris* in 1775. The domestic cat is now considered a subspecies of the wild cat: by the strict rule of priority of the International Code of Zoological Nomenclature the name for the species thus ought to be *F. catus* since Linnaeus published first. However, in practice almost all biologists use *F. silvestris* for the wild species, using *F. catus* only for the domesticated form.

In opinion 2027 (published in Volume 60, Part 1 of the *Bulletin of Zoological Nomenclature*, 31 March 2003 [22]) the International Commission on Zoological Nomenclature "conserved the usage of 17 specific names based on wild species, which are predated by or contemporary with those based on domestic forms", thus confirming *F. silvestris* for the wild cat and *F. silvestris catus* for its domesticated subspecies. (*F. catus* is still valid if the domestic form is considered a separate species.)

Johann Christian Polycarp Erxleben named the domestic cat *Felis domesticus* in his *Anfangsgründe der Naturlehre und Systema regni animalis* of 1777. This name, and its variants *Felis catus domesticus* and *Felis silvestris domesticus*, are often seen, but they are not valid scientific names under the rules of the International Code of Zoological Nomenclature.

## Varieties of domestic cat

The [list of cat breeds](#) is quite large. Each breed has distinct features and heritage. The owners and breeders of show cats compete to see whose animal bears the closest resemblance to the "ideal" definition of the breed (see [selective breeding](#)). Due to common crossbreeding in populated areas, many cats are simply identified as belonging to the homogeneous breeds of [domestic longhair](#) and [domestic shorthair](#), depending on their type of fur. In the United Kingdom and Australia, non-purebred cats are referred in slang as [moggies](#) (also an archaic slang word for a prostitute, probably referring to a female cat's

promiscuous habits). In the United States, a non-purebred cat is sometimes referred to in slang as an alley cat, even if it is not a [stray](#).

Cats come in a variety of colors and patterns. These are physical properties and should not be confused with a breed of cat.

Household cats are divided into:

- [Domestic longhaired](#)
- [Domestic shorthaired](#)

[Cat coat genetics](#) can produce a variety of coat patterns; some of the most common are [Bicolor cat](#)

Also known as 'Tuxedo cat' or 'Jellicle cat' ([tuxedos](#) are mostly black with white paws/legs, bellies, chests, and possible markings on face).

[Maltese cat](#)

The former name for a blue (grey) cat.

[Oriental cat](#)

(not a specific breed, but any cat with an elongated slender build, almond-shaped eyes, large ears and very short sleek fur).

[Tabby cat](#)

Striped, with a variety of patterns. The classic "blotched tabby" pattern is the most common and consists of butterflies and bull's-eyes. The mackerel tabby is a series of vertical stripes down the cat's side (resembling the fish). This pattern broken into spots is referred to as spotted tabby. The worldwide evolution of the cat means that certain types of tabby are associated with certain countries; for instance, blotched tabbies are quite rare outside NW Europe, where they are the most common type.

[Tortoiseshell and Calico](#)

Featuring three colors mottled throughout the coat, this cat is also known as a Calimanco cat or Clouded Tiger cat, and by the nickname "tortie". A true tortoiseshell must consist of three kinds of color: a reddish color, dark or light; white; and one other color, typically a brown, black or blue, as described by American breeder Barbara French, writing for the Cat Fanciers community [\[23\]](#). Calico cats are white with distinct black and red (or blue and cream in the dilute variant) spots. The Japanese refer to this pattern as mi-ke (meaning "triple fur"). Both tortoiseshell and calico cats are typically female because the coat pattern is the result of differential X chromosome inactivation in females (which, as with all normal female mammals, have two X chromosomes). Those male tortoiseshells that are created are usually sterile; conversely, cats where the overall color is ginger (orange) are virtually always male, and a litter sired by a ginger tom usually contains tortoiseshell females. See "Tortoiseshell and Tricolour Cats" for an extensive genetic explanation for tricolor cats, and detailing the possible combinations of coloring.[\[24\]](#)

## History and mythology

*Main article [History of cats](#)*

Cats have been kept with humans since at least the days of Ancient Egypt through various cultures. In Ancient Egypt, the cat god, Bast, is a goddess of the home and of the domestic cat, although she sometimes took on the war-like aspect of a lioness. Daughter of the sun god Ra,

although sometimes regarded as the daughter of Amun. She was the wife of Ptah and mother of the lion-god Mihos. Her cult was centered on her sanctuary at Bubastis in the delta region, where a necropolis has been found containing mummified cats. Bast was also associated with the 'eye of Ra', acting as the instrument of the sun god's vengeance. She was depicted as a cat or in human form with the head of a cat, often holding the sacred rattle known as the sistrum.

## References

1. ^ [Speaking of Animals](#). URL accessed on August 15, 2005.
2. ^ [Feline Statistics](#). URL accessed on August 15, 2005.
3. ^ [Spay and Neuter Your Pet Cats](#). URL accessed on August 8, 2005.
4. ^ [At Home : Care / Health : Understanding Cats](#). URL accessed on August 15, 2005.
5. ^ [Normal Values For Dog and Cat Temperature, Blood Tests, Urine and other information in ThePetCenter.com](#). URL accessed on August 8, 2005.
6. ^ [Falling Cats](#). URL accessed on October 24, 2005.
7. ^ [Calypso \(Ulysses ch4\)](#). URL accessed on October 24, 2005.
8. ^ [Anal Sac Disease](#). URL accessed on October 24, 2005.
9. ^ [PLoS Genetics: Pseudogenization of a Sweet-Receptor Gene Accounts for Cats' Indifference toward Sugar](#). URL accessed on August 8, 2005.
10. ^ [Felidae World - Catnip and Grasses for Cats](#). URL accessed on August 8, 2005.
11. ^ [Suspected bentonite toxicosis in a cat from ingestion of clay cat litter](#). URL accessed on September 10, 2005.
12. ^ [Cat toilet-training](#). URL accessed on August 8, 2005.
13. ^ [Scratching or clawing in the house](#). URL accessed on August 14, 2005.
14. ^ [Swiss Federal Act on Animal Protection, 1978, Section 8: Prohibited Practices, §22\(g\)](#). URL accessed on August 22, 2005.
15. ^ [European Convention for the Protection of Pet Animals, Chapter II - Principles for the keeping of pet animals, Article 10\(1\)](#). URL accessed on August 22, 2005.
16. ^ [LMF: Roy Robinson on White Cats](#). URL accessed on August 8, 2005.
17. ^ [Deafness in Dogs & Cats - Genetics: Dogs](#). URL accessed on August 8, 2005.
18. ^ [Deafness in Dogs & Cats - Genetics: Cats](#). URL accessed on August 8, 2005.
19. ^ [White Cats, Eye Colours and Deafness](#). URL accessed on August 8, 2005.
20. ^ [Bulletin of Zoological Nomenclature 60\(1\) March 2003](#). URL accessed on August 8, 2005.
21. ^ [Torties, Calicos and Tricolor Cats](#). URL accessed on October 24, 2005.
22. ^ [Tortoiseshell and Tricolour Cats](#). URL accessed on November 27, 2005.
23. ^ [AAAS - AAAS News Release](#). URL accessed on August 8, 2005.
24. ^ [CBC News:Ancient tomb may hold oldest pet cat](#). URL accessed on August 8, 2005.
25. ^ [Snopes - Murderous Moggies](#). URL accessed on August 15, 2005.
26. ^ [Cat Breeds, Types and Variants](#). URL accessed on November 29, 2005.

## See also

- [Cat body language](#)

- [Cat flap](#)
- [Cats in Ancient Egypt](#)
- [Catfight](#)
- [Kitten](#)
- [List of historical cats](#)
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## Purebred

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**Purebreds**, also called *purebreeds* or *pedigreed*, are cultivated varieties or *cultivars* of a species, achieved through the process of [selective breeding](#).

## See also

- [Cat breeds](#)
- [Pedigree \(cat\)](#)

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## Animal Communication

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**Animal communication** is any behaviour on the part of one animal that has an effect on the current or future behaviour of another animal. The study of animal communication, called zoosemiotics (distinguishable from anthroposemiotics, the study of human communication) has played an important part in the development of ethology, sociobiology, and the study of animal cognition.

## Intraspecies vs. interspecies communication

The sender and receiver of a communication may be of the same species or of different species. The majority of animal communication is intraspecific (between two or more individuals of the same species). However, there are some important instances of interspecific communication. Also, the possibility of interspecific communication, and the form it takes, is an important test of some theoretical models of animal communication.

## Interspecies communication

### Prey to predator

If a prey animal moves or makes a noise in such a way that a predator can detect and capture it, that fits the definition of "communication" given above. Nonetheless, we do not feel comfortable talking about it as communication. Our discomfort suggests that we should modify the definition of communication in some way, either by saying that communication should generally be to the adaptive advantage of the communicator, or by saying that it involves something more than the inevitable consequence of the animal going about its ordinary life.

There are however some actions of prey species that are clearly communications to actual or potential predators. A good example is warning colouration: species such as wasps that are capable of harming potential predators are often brightly coloured, and this modifies the behaviour of the predator, who either instinctively or as the result of experience will avoid attacking such an animal. Some forms of mimicry fall in the same category: for example

hoverflies are coloured in the same way as wasps, and although they are unable to sting, the strong avoidance of wasps by predators gives the hoverfly some protection. There are also behavioral changes that act in a similar way to warning colouration. For example, canines such as wolves and coyotes may adopt an aggressive posture, such as growling with their teeth bared, to indicate they will fight if necessary, and rattlesnakes use their well-known rattle to warn potential predators of their poisonous bite. Sometimes, a behavioral change and warning colouration will be combined, as in certain species of amphibians which have a brightly coloured belly, but on which the rest of their body is coloured to blend in with their surroundings. When confronted with a potential threat, they show their belly, indicating that they are poisonous in some way.

A more controversial example of prey to predator communication is *stotting*, a highly noticeable form of running shown by some antelopes such as Thomson's gazelle in the presence of a predator; it has been argued that this demonstrates to the predator that the particular prey individual is fit and healthy and therefore not worth pursuing.

## Predator to prey

Some predators communicate to prey in ways that change their behaviour and make them easier to catch, in effect deceiving them. A well-known example is the angler fish, which has a fleshy growth protruding from its forehead and dangling in front of its jaws; smaller fishes try to take the lure, and in so doing are perfectly placed for the angler fish to eat them.

## Symbiotic species

Interspecies communication also occurs in various kinds of mutualism and symbiosis. For example, in the cleaner fish/grouper system, groupers signal their availability for cleaning by adopting a particular posture.

## Human/animal communication

Various ways in which humans interpret the behaviour of domestic animals, or give commands to them, fit the definition of interspecific communication. Depending on the context, they might be considered to be predator to prey communication, or to reflect forms of commensalism. The recent experiments on animal language are perhaps the most sophisticated attempt yet to establish human/animal communication, though their relation to natural animal communication is uncertain.

Some people believe that it is possible for humans and animals to communicate through telepathy.

## Intraspecies communication

The majority of animal communication, however, occurs within a single species, and this is the context in which it has been most intensively studied.

## Forms of communication

Most of the following forms of communication can also be used for interspecific communication.

The best known forms of communication involve the display of distinctive body parts, or distinctive bodily movements; often these occur in combination, so a distinctive movement acts to reveal or emphasise a distinctive body part. An example that was important in the history of ethology was the parent Herring Gull's presentation of its bill to a chick in the nest. Like many gulls, the Herring Gull has a brightly coloured bill, yellow with a red spot on the lower mandible near the tip. When it returns to the nest with food, the parent stands over its chick and taps the bill on the ground in front of it; this elicits a begging response from a hungry chick (pecking at the red spot), which stimulates the parent to regurgitate food in front of it. The complete signal therefore involves a distinctive morphological feature (body part), the red-spotted bill, and a distinctive movement (tapping towards the ground) which makes the red spot highly visible to the chick. Investigations by Niko Tinbergen and his colleagues showed that the red colour of the bill, and its high contrast, are crucial for eliciting the appropriate response from the chick (It is unresolved whether this actually is an inborn behavior in all its complexity, or simply a combination of generalized curiosity on part of the chick, and generalized parental/feeding instincts acting together to produce a simple learning process via reward. Gull chicks peck at everything that is brightly colored, mainly red, yellow, white or shining, high-contrast objects, but the parent's bill is the only such object that will constantly yield food as a reward when pecked at. Accidental swallowing of pieces of brightly colored plastic or glass is a common cause of mortality amongst gull chicks).

Another important forms of communication is bird song, usually performed mainly by males, though in some species the sexes sing in alternation (this is called duetting and serves mainly purposes of strengthening pair-bonding and repelling competitors). Bird song is just the best known case of vocal communication; other instances include the warning cries of many monkeys, the territorial calls of gibbons, and the mating calls of many species of frog.

Less obvious (except in a few cases) is olfactory communication. Many mammals, in particular, have glands that generate distinctive and long-lasting smells, and have corresponding behaviours that leave these smells in places where they have been. Often the scented substance is introduced into urine or feces. Sometimes it is distributed through sweat, though this does not leave a semi-permanent mark as scents deposited on the ground do. Some animals have glands on their bodies whose sole function appears to be to deposit scent marks: for example Mongolian gerbils have a scent gland on their stomachs, and a characteristic ventral rubbing action that deposits scent from it. Golden hamsters and [cats](#) have scent glands on their flanks, and deposit scent by rubbing their sides against objects; cats also have scent glands on their foreheads. Bees carry with them a pouch of material from the hive which they release as they reenter, the smell of which indicates if they are a part of the hive and grants their safe entry.

## Functions of communication

While there are as many kinds of communication as there are kinds of social behaviour, a number of functions have been studied in particular detail. They include:

- agonistic interaction: everything to do with contests and aggression between individuals. Many species have distinctive threat displays that are made during competition over food, mates or territory; much bird song functions in this way. Often there is a matched submission display, which the threatened individual will make if it is acknowledging the social dominance of the threatener; this has the effect of terminating the aggressive episode and allowing the dominant animal unrestricted access to the resource in dispute. Some species also have *affiliative* displays which are made to indicate that a dominant animal accepts the presence of another
- courtship rituals: signals made by members of one sex to attract or maintain the attention of potential mate, or to cement a pair bond. These frequently involve the display of body parts, body postures (gazelles assume characteristic poses as a signal to initiate mating), or the emission of scents or calls, that are unique to the species, thus allowing the individuals to avoid mating with members of another species which would be infertile. Animals that form lasting pair bonds often have symmetrical displays that they make to each other: famous examples are the mutual presentation of weed by Great-Crested Grebes, studied by Julian Huxley, the triumph displays shown by many species of geese and penguins on their nest sites and the spectacular courtship displays by birds of paradise and manakins.
- food-related signals: many animals make "food calls" that attract a mate, or offspring, or members of a social group generally to a food source. When parents are feeding offspring, the offspring often have begging responses (particularly when there are many offspring in a clutch or litter - this is well known in altricial songbirds, for example). Perhaps the most elaborate food-related signal is the dance language of honeybees studied by Karl von Frisch.
- alarm calls: signals made in the presence of a threat from a predator, allowing all members of a social group (and often members of other species) to run for cover, become immobile, or gather into a group to reduce the risk of attack.
- metacommunications: signals that modify the meaning of subsequent signals. The best known example is the *play face* in dogs, which signals that a subsequent aggressive signal is part of a play fight rather than a serious aggressive episode.

## **Evolution of communication**

The importance of communication is clear from the fact that animals have evolved elaborate body parts to facilitate it. They include some of the most striking structures in the animal kingdom, such as the peacock's tail. Birdsong appears to have not just peripheral but also brain structures entirely devoted to its production. But even the red spot on a herring gull's bill, and the modest but characteristic bowing behaviour that displays it, require evolutionary explanation.

There are two aspects to the required explanation:

- identifying a route by which an animal that lacked the relevant feature or behaviour could acquire it;
- identifying the selective pressure that makes it adaptive for animals to develop structures that facilitate communication, emit communications, and respond to them.

Significant contributions to the first of these problems were made by Konrad Lorenz and other early ethologists. By comparing related species within groups, they showed that movements and body parts that in the primitive forms had no communicative function could be "captured" in a context where communication would be functional for one or both partners, and could evolve into a more elaborate, specialised form. For example, Desmond Morris showed in a study of grass finches that a beak-wiping response occurred in a range of species, serving a preening function, but that in some species this had been elaborated into a courtship signal.

The second problem has been more controversial. The early ethologists assumed that communication occurred for the good of the species as a whole, but this would require a process of group selection which is believed to be mathematically impossible in the evolution of sexually reproducing animals. It was the fundamental insight of sociobiology that behaviours that benefited a whole group of animals might emerge as a result of selection pressures acting solely on the individual. In the case of communication, an important discussion by John R. Krebs and Richard Dawkins established hypotheses for the evolution of such apparently altruistic or mutualistic communications as alarm calls and courtship signals to emerge under individual selection. This led to the realisation that communication might not always be "honest" (indeed, there are some obvious examples where it is not, as in mimicry). The possibility of evolutionarily stable dishonest communication has been the subject of much controversy, with Amotz Zahavi in particular arguing that it cannot exist in the long term. Sociobiologists have also been concerned with the evolution of apparently excessive signalling structures such as the peacock's tail; it is widely thought that these can only emerge as a result of sexual selection, which can create a positive feedback process that leads to the rapid exaggeration of a characteristic that confers an advantage in a competitive mate-selection situation.

## Communication and understanding

Ethologists and sociobiologists have characteristically analysed animal communication in terms of more or less automatic responses to stimuli, without raising the question of whether the animals concerned understand the meaning of the signals they emit and receive. That is a key question in animal cognition. There are some signalling systems that seem to demand a more advanced understanding. A much discussed example is the use of alarm calls by vervet monkeys. Richard Seyfarth and Dorothy Cheney showed that these animals emit different alarm calls in the presence of different predators (leopards, eagles, and snakes), and the monkeys that hear the calls respond appropriately - but that this ability develops over time, and also takes into account the experience of the individual emitting the call. Metacommunication, discussed above, also seems to require a more sophisticated cognitive process.

## Animal communication and human behaviour

Another controversial issue is the extent to which humans have behaviours that resemble animal communication, or whether all such communication has disappeared as a result of our linguistic capacity. Some of our bodily features - eyebrows, beards and moustaches, deep adult male voices, perhaps female breasts - strongly resemble adaptations to producing signals. Ethologists such as Iraneaus Eibl-Eibesfeldt have argued that facial gestures such as smiling, grimacing, and the eye-brow flash on greeting are universal human communicative signals that can be related to corresponding signals in other primates. Given the recency with which spoken language has emerged, it is likely that human body language does include some more or less involuntary responses that have a similar origin to the communication we see in other animals.

Humans also often seek to mimic animals' communicative signals in order to interact with the animals. For example, cats have a mild affiliative response involving closing their eyes; humans often close their eyes towards a pet cat to establish a tolerant relationship. Stroking, petting and rubbing pet animals are all actions that probably work through their natural patterns of interspecific communication.

## Animal communication and linguistics

For linguistics, the interest of animal communication systems lies in their similarities to and differences from human language:

1. Human languages are characterized for having a **double articulation** (in the characterization of French linguist André Martinet). It means that complex linguistic expressions can be broken down in meaningful elements (such as morphemes and words), which in turn are composed of smallest meaningless phonetic elements, or phonemes. Animal signals, however, do not exhibit this dual structure.
2. Animal utterances are generally reflexes of external stimuli and thus are not produced intentionally. They cannot refer to matters removed in time and space (a possible exception is the information conveyed in honeybee dance language).
3. Human language is learned, while animal communication systems are known largely by instinct.
4. Human languages combine elements to produce new messages (a property known as **creativity**). This is not possible in animal communication systems.
5. In contrast to human language, animal communication systems are not able to express conceptual generalizations.

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## BIKECAT

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**BIKECAT**, also known as Kuma(P), is a [cat](#) that is frequently posted on image boards such as 2ch and iichan.

### Introduction

On [cat](#) image boards, cat owners often take pictures of their pets and upload them for the enjoyment of others. BIKECAT (always written with capital letters) is a cat that has become famous on image boards such as Futaba Channel and iichan. BIKECAT's name reflects the nature of many of his pictures, in which he is sitting in the basket of a bike. BIKECAT is considered to be extremely cute and has an endearingly grumpy personality, which some say makes him even cuter. His grumpiness often makes him seem like a tough cat, which many interpret as the quality of a leader or even god. BIKECAT's cuteness and grumpiness have made him a popular internet meme.

BIKECAT is worshipped as a god by many of his fans.

### BIKECAT's characteristics

BIKECAT is a white cat with grey stripes and notably large yellow eyes. A very special characteristic that BIKECAT has is his collar. He wears what appear to be dog collars (one he wears often even says "dog" on the side, making him look like more of a tough cat).

### BIKECAT's increased popularity

#### Origins of his nickname

Already famous on futaba channel, BIKECAT's pictures began to be posted on both 2ch and iichan on the "Random" forums (also known as "/b/"), also on the cat board on

WTFUX.org. The most appealing photos were the ones in which BIKECAT was shown in a grumpy or mad mood, which users found cute. After some time, BIKECAT's images were posted so many times that users began to develop a personal curiosity. On iichan's "random" board and on WTFUX's cat board, a few users proposed names for the cat, including "BIKECAT" and "BASKETCAT," because many of the pictures feature him seated in a bicycle basket. This amazed users because cats do not typically stay in one place. "BIKECAT" was selected as his name and he was named like so from then on, to the point that his name became notorious among users on iichan.

## What users think of him

As mentioned before, BIKECAT was found cuter when in a grumpy or mad mood. In most of his pictures taken, BIKECAT appears as a "tough" cat, the kind that other cats won't mess with rather than appearing like a cute cat like most owners like to take pictures of their pets. Because of his grumpy mood, BIKECAT is often referred as "the king of cats", as a "superior cat". For non cat-lovers, he is popular because of his appearance, while for those who love cats, (most being users of the cat boards of both Futaba Channel and iichan) his grumpiness is what attracts them.

## His pictures

Most of the pictures posted of BIKECAT seem to be taken on the streets of what appears to be Nagoya, Japan. The owner takes BIKECAT around the city to urban places like streets, stores and parks (BIKECAT seems to enjoy his bicycle trips). Another part of BIKECAT's pictures are taken off the bicycle as he walks through the places where he was taken to outside while other pictures of him features him at home.

## See also

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## Black Cat

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The **black cat** is a feline whose fur is uniformly or mostly black. It is not a particular breed of cat and may be mixed or of a specific breed. In Western history, black cats have often been looked upon as a symbol of bad omens.

### Historical associations

Historically, black cats were symbolically associated with witchcraft and evil. In Hebrew and Babylonian folklore, cats are compared to serpents, coiled on a hearth. In the Middle Ages, Germanic peoples and the Normans associated the black cat with "bad luck". To some, they were an omen of impending death. On roads, a black cat crossing one's path was considered a signal of danger ahead.

Since the 1880s, the color black has been associated with anarchism. The black cat, in an alert, fighting stance was later adopted as an anarchist symbol. More specifically, the black cat is associated with anarcho-syndicalism, a branch of anarchism that focuses on workers' rights. Anarchists, Situationists and Revolutionary Industrial Unionists (such as the IWW) believe that wildcat strikes could be the spark for revolution.

In the 1930s, the Wiccan religious tradition emerged. Since much of Wicca is reconstructed from supposed witchcraft practices, the black cat was adopted as a Wiccan symbol.

The archaic associations of black cats with bad luck or evil appear occasionally in North American popular culture, but are no longer widely held. Contrarily in the UK black cats are the most well known sign of good luck and have always been so. By some human beings, black cats are seen as desirable pets.

Eveready Batteries uses a black cat leaping through the digit 9 as its logo - one of the most recognizable company trademarks.

### Witchcraft

Cats, in witchcraft folklore, are often believed to be familiars of human witches, because of their purported psychic and magical abilities. Both historically and in modern times, those who practice witchcraft often keep cats as pets.

Black cats, because of their ability to remain unseen in dark places or at night, were considered especially desirable partners for witches. Some witches were purported to have the ability to shape-shift into a cat nine times, hence the archaic belief that cats have "nine

lives". Black cats were sometimes used in magical rituals, sometimes as purported participants, other times as sacrifices.

In witch trials, ownership of a cat was often taken as "evidence" of Satanic association and witchcraft. Cats, believed to be evil in their own right, were often punished as well as humans during these trials, often being burned alive.

Both historically and today, some religious and spiritual groups purportedly engage in ritualistic sacrifice of cats, though studies have mainly found that such reports belong squarely in the province of urban legend. Cats are never sacrificed in Wiccan rituals, harming animals or people being against the religion.

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## Cat Coat Genetics

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The **genetics of cat coat** coloration, pattern, length, and texture is a complex subject, and many different genes are involved.

## Genes involved in albinism, dominant white, and white spotting

- The dominant C gene and its recessive alleles determine whether a cat is a complete albino (either pink-eyed or blue-eyed), a temperature sensitive albino (Burmese, Siamese, or a blend known as Tonkinese), or a non-albino. If a cat has

the dominant C gene, then the cat is non-albino and the W gene determines its color.

- The *white masking* gene, *W/w*. The dominant allele masks all other colors by preventing pigment producing cell migration to the skin during embryologic development. In other words, the cat has a greatly reduced number of melanocytes. A cat that is *WW* or *Ww* will be white, no matter what other color genes it may have. A cat that is homozygous recessive (*ww*) will express normal pigmentation, and the O gene will determine its color. Some cats with the W gene are deaf or have depigmentation of the iris of one or both eyes, resulting in blue eye color.
- The *white spotting* or *piebald spotting* gene, *S/s*, which has variable expression, so that an *SS* cat has more extensive white patching than an *Ss* cat. It is this gene that creates the familiar white blaze across the face, a white bib, *tuxedo* pattern, or dappled paws. This gene can turn a cat's eyes blue if the white spotting occurs over the eyes. A hypothetical *Sb* allele ("gloving gene") causes the mittens in Birman and Snowshoe breeds. Some researchers believe that there are separate white spotting genes for distinct features, such as the white locket that some cats have on their neck.

## Genes involved in orange, black, brown, and diluted colors

- The sex-linked *orange* gene, *O*, determines if there will be orange fur. This gene only appears on the X chromosome. In cats with orange fur, phaeomelanin (orange pigment) completely replaces eumelanin (black pigment).
- For males, *O* results in orange fur, and *o* means that the B gene will determine the color (the black or brown color may be broken up into patterns if the cat has the agouti gene).
- For females, *OO* results in orange fur, *oo* means that the B gene will determine the color (patterns if the cat has the agouti gene), and *Oo* results in a tortoiseshell cat, in which the B gene determines the color of the dark patches. A cat with *Oo* and white spotting genes will be a calico. The reason for the patchwork effect in female cats heterozygous for the *O* gene (*Oo*) is "X chromosome inactivation" - one or the other X chromosome in every cell in the embryo is randomly inactivated, and the gene in the other X chromosome is expressed.
- Rufous polygenes, as yet unidentified, that affect the richness of the orange gene's expression.

For a cat to be tortoiseshell, calico, or one of the diluted variants such as blue-cream, the cat must simultaneously express two alleles, *O* and *o*, which are located on the X chromosome. Males normally cannot do this, as they have only one X chromosome, and therefore only one allele, and so calico cats are normally only female.

- The browning gene *B/b* codes for tyrosinase related protein-1, an enzyme involved in the metabolic pathway for eumelanin pigment production, and in its

dominant form, *B*, will produce black color. Recessive variants are *b*, producing brown (or *chocolate*), and *b'* producing light brown or *cinnamon*.

- The *Dense pigment* gene, *D/d*, corresponds to the *dilute* phenotype. When a cat has two of the recessive *d* alleles, black fur becomes "blue" (actually gray), chocolate fur becomes lilac, cinnamon fur becomes fawn, and orange fur becomes cream.
- Dilution modifier gene, *Dm*, which caramelizes the dilute colors in its homozygous form (*Dm-*). The existence of this phenomenon as a discrete gene is a controversial subject among feline enthusiasts.
- There is also a theoretical "black modifier" gene, *Bm*, which in its recessive form, *bmbm*, causes these cats to turn amber or light amber. This gene could be more appropriately called "agouti modifier" and is probably related to the extension locus (the melanocortin receptor) or its ligand, the agouti signaling protein. This phenomenon was first identified in [Norwegian Forest Cats](#). Other forms of extension mutations have been seen in many breeds (and domestic cats), resulting in unique forms of tabby expression.

One can deduce that a grey male cat with a white bib and paws:

- has the *o* variant of the orange gene on its only X chromosome (because the grey color corresponds to black, not orange)
- has at least one *S* variant of the white Spotting gene (because it has the white bib and paws)
- has two *w* genes (because it expresses a fur color)
- has the dominant *B* gene (because its fur color is a shade of black rather than brown)
- has two *d* (dilute) genes (because its fur is grey, rather than black)

## Genes involved in fur pattern and shading

- The primary [tabby](#) pattern gene, *Mc/mc*, which sets the basic pattern of stripes that underlies the coat: the basic wild-type tabby gene, *Mc*, produces what is called a *mackerel striped* tabby (stripes look like thin fishbones and may break up into bars or spots); while a recessive mutant, *mc*, produces a blotched or *classic* tabby pattern (broad bands, whorls, and spirals of dark color on pale background usually with bulls-eye or oyster pattern on flank.) The classic tabby pattern is common in Great Britain and in lands that were once part of the British Empire.
- Secondary [tabby](#) pattern genes such as *T<sup>a</sup>* / *t<sup>a</sup>*, at which locus a dominant mutation produces an *Abyssinian ticked* or non-patterned agouti tabby, having virtually no stripes or bars. (This is one type of unpatterned tabby; the other type of unpatterned tabby is the tipped / shaded / smoke cat. See inhibited pigment gene, below.) The dominant form of the Abyssinian gene masks out all other tabby patterns.
- Other genes are theorized to be responsible for creating various type of spotting patterns, many of which are variations on a basic mackerel or classic pattern.

There are also hypothetical genes which affect banding frequency, width, and size.

- The agouti gene, *A/a* which codes for agouti signaling protein. The dominant, wild-type *A* causes the agouti shift phenomenon which causes hairs to be black pigmented at the tips and orange pigmented at the roots (revealing the underlying tabby pattern), while the recessive *non-agouti* or "hypermelanistic" allele, *a*, prevents this shift in the pigmentation pathway. In its homozygous form, *aa*, this results in black pigment production throughout the growth cycle of the hair. Thus, the non-agouti genotype (*aa*) masks or hides the tabby pattern (Mc and mc). The *O* gene is also epistatic over the *aa* genotype. That is, the *A* to *a* mutation does not have a discernable effect on red or cream colored cats, resulting in these cats displaying tabby striping independent of their genotype at this locus. This explains why you can usually see the tabby pattern in the orange patches of tortoiseshell cats, but not in the black or brown patches.
- There is an interesting gene, not yet identified but believed to be related to the agouti gene, in the Chausie breed, that produces silver-tipped black fur similar to Abyssinian ticked fur. The "grizzled" phenomenon is purported to have been inherited from the hybridization of these cats to Jungle Cats.
- The *inhibited pigment* gene, *I/i*. The homozygous dominant allele (*II*) produces *tipped* hairs that are fully colored only at the tip and have a white base. The homozygous recessive allele (*ii*), when combined with the agouti gene, produces normal wildtype tabby coloration. Some of these cats in which the agouti shift happens early in hair growth are termed "golden" cats. The melanin inhibitor gene interacts with other genes, especially the agouti gene, to produce various degrees of tipping, ranging from tipped to silver shaded and silver tabby, to smoke.

## How breeders can identify and separate tabby genes

Cats with tabby genes (AA or Aa) normally have:

- M on forehead. (Does this disappear in ticked, shaded silver, and tipped cats?)
- Thin pencil lines on face. (Does this disappear in ticked, shaded silver, and tipped cats?)
- Black "eyeliner" appearance and white or pale fur around eyeliner.
- Pigmented lips and paws.
- A pink nose outlined in darker pigment
- Torso, leg, and tail banding. (Torso banding disappears in the ticked tabby.)

Most or all banding disappears in the shaded shorthair, but you can still deduce the tabby genes from the other features, such as the "eyeliner" appearance.

The genetics involved in producing the ideal tipped, shaded, or smoke cat is complex. Not only are there dozens of interacting genes, but genes sometimes do not express themselves fully, or conflict with one another. For example, the melanin inhibitor gene sometimes does a poor job blocking pigment, resulting in an excessively gray undercoat, or in tarnishing

(yellowish or rusty fur). Likewise, poorly-expressed non-agouti or over-expression of melanin inhibitor will cause a pale, washed out black smoke. Here are the minimum genetic requirements for a tipped or shaded cat to exist:

- Agouti gene.
- Genes (such as  $T^a$ ) causing unstriped body type.
- Genes affecting number and width of bands of color on each hair.
- Hypothetical wide band gene(s). Without a wide undercoat, the cat appears as a tabby.
- Silver or melanin inhibitor gene.
- Genes causing sparkling appearance (not yet identified?).
- Genes to clear up residual striping (hypothetical Chaos, Confusion, Unconfused, Erase, and Roan).
- Various polygenes (sets of related genes), epigenetic factors, or modifier genes, as yet unidentified, believed to result in different degrees of shading, some more desirable than others.

## Genes involved in fur length and texture

Cat fur length is governed by the *Long hair* gene in which the dominant form,  $L$  codes for **short** hair, and the recessive  $l$  codes for **long** hair.

There are many genes resulting in unusual fur. These genes were discovered in random-bred cats and selected for. Some of the genes are in danger of going extinct because the breeders have not marketed their cats effectively, the cats are not sold beyond the region where the mutation originated, or there is simply not enough demand for the mutation.

There are various genes producing curly coated or "rex" cats. New types of rex pop up spontaneously in random-bred cats now and then. Here are some of the rex genes that breeders select for:

- rr = Cornish rex
- rere = Devon rex
- roro = Oregon rex (extinct?)
- Se = Selkirk rex

There are also genes for hairlessness, which produce the French hairless cat (genotype hh), the British hairless cat (genotype dd), and the Canadian [Sphynx cat](#) (genotype rr). Some rex cats are prone to temporary hairlessness, known as baldness, during moulting.

Here are a few other genes resulting in unusual fur:

- The Lp gene (dominant) results in LaPerm cats with silky single coats.
- The Wh gene (dominant, possibly incomplete) results in Wirehair cats. They have bent or crooked hair producing springy, crinkled, coarse fur.
- The Yuc gene, or York Chocolate undercoat gene, results in cats with no undercoat.

## See also

- [Bicolor cat](#)

- [Tortoiseshell cat](#)

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## Cat Deterrent

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A **cat deterrent** is a mechanism or device used to discourage [cats](#) from entering an area, or to encourage them to leave if they do enter. Cat deterrents are most commonly used by gardeners, in order to prevent damage to their gardens or avoid acquiring unwanted cat faeces; people with an interest in observing garden birds also use cat deterrents.

Cat deterrents include:

- lion dung
- orange peel and other objects of a citrus origin
- ultrasonic devices
- electric fencing

### Lion Dung

Lion Dung has been reported to be an effective method of deterring cats, and has received support from the British organisation Cats Protection. Research reported by the BBC [1] found that it was not terribly effective however.

### Citrus deterrents

Cats dislike the smell of citrus, and citrus-based products are used by some as a deterrent.

## Ultrasonic device

Ultrasonic devices (inaudible to humans) are a popular method of deterring cats. The RSPB, on the basis of a trial involving 150 volunteers, has endorsed a commercial product called "CatWATCH" RSPB research on electronic cat deterrents

## Electric fencing

A design for an electric fence for deterring cats can be found [here](#). A variety of commercially produced electric fences are also available, with voltages low enough to deter but not cause harm to cats. Care must be taken with the strength of electric current used; one Cumbria pensioner received a fine for setting up a system based on a 12v battery [\[2\]](#) [\[3\]](#).

Cats Protection describe the use of electric fences as "barbaric" on their website, though they do not give any evidence to support this view.

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## Cat Hoarding

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**Cat hoarding** refers to the behavior of harboring large numbers of cats in a private home, often to the extent that the cats become [feral](#). As a result, the cat hoarder's home often becomes infested with both live and dead cats to the extent that, because of cat feces, parasites and odors, the home is condemned by local authorities. When such homes are discovered and raided by police or animal control, cat colonies in excess of one hundred animals are not uncommon.

The psychological conditions leading to cat hoarding are complex, and often the cat hoarder feels persecuted for doing what he or she believes is a humane endeavor to provide a home to stray cats.

The no-kill shelter program has been accused of cat hoarding by PETA<sup>[11](#)</sup>.

## References

[^ A website about cat hoarding at PETA](#)

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## Cat Show

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A **cat show** is a judged event where [cats](#) compete to win titles in various cat registering organizations. Both [pedigreed](#) and random bred cats can compete, although the rules differ from organization to organization. Cats are compared to a breed standard and those judged to be closest to it are awarded a prize. Often, at the end of the year, all of the points accrued at various shows are added up and additional national and regional titles are awarded.

In the US, each judge has a separate ring with cages. The cats are brought up to the judge, who removes each cat in turn and then replaces them when they are done. Spectators, including the owners of the cats are present and in the audience. The cats' owners are given a number for each cat and are responsible for getting them to the ring when they are called.

In Europe, many times the cats are all placed in undecorated cages in a hall, then the judge comes around to each cat and examines them. The owner must leave the hall while judging takes place. When all the judging is done, the results are tallied and the owners may return.

Cat shows are important so that breeders can compare their cats and progress on breed standards can be achieved.

# Registering bodies

- American Cat Fanciers Association
- Australian Cat Federation
- Canadian Cat Association
- Cat Fanciers' Association
- [Fédération Internationale Féline](#)
- Governing Council of the Cat Fancy
- The International Cat Association

## See also

- [Show cat](#)

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## Catgirl

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A **catgirl** is a woman or girl with [cat](#) ears and a cat tail, but an otherwise human body; they are found semi-commonly in anime and manga either as a form of cosplay or actual body parts, as well as in a few video games (Dark Cloud, for example). Catgirls wishing to look especially cute will wear over-sized mittens and shoes that look like paws. "Catgirl" can sometimes be modified to refer to other woman/animal combinations that are sometimes found, usually mammals like bunnygirls, foxgirls and (more rarely) doggirls; see kemono. Fans unfamiliar with the Japanese obsession with cuteness (kawaii) sometimes point out catgirls act more like kittens than grown cats, who can be aloof and surly.

Most catgirls are typically not considered furry because they resemble humans with cat-like embellishments rather than being an anthropomorphic cat. This even includes characters such as Escafowne's Merle, the Puma Twins from Dominion: Tank Police, or Aisha Clan-Clan from Outlaw Star, who are more catlike than usual.

Ordinary humans, such as Hikaru Shidou from Magic Knight Rayearth, or Ichigo Momomiya (Zoey Hanson in the English adaptation) from Tokyo Mew Mew (Mew Mew Power in the English version) will sometimes sprout cat ears or a tail in order to illustrate their excitable personalities. This is similar to the phenomenon of becoming chibi and is mostly a stylistic quirk from manga artists. In Japanese, catgirls are usually called *nekomimi* (+3)—literally, "cat ears"—rather than the literal term *nekomusume* (+). Sometimes characters do not actually feature cat-like ears or such an accessory but their hair sticks out and resembles cat ears.

Characters in anime and manga may momentarily develop a catlike mouth. This is usually used to emphasize mischievous thoughts or comments by a character. Rebellious boys are more often compared to dogs (InuYasha being a popular example) or wolves. The "lone-wolf" characterization is very common for brooding, aggressive, socially isolated males, while comparisons to dogs usually refer to adorably rebellious but ultimately harmless boys. However, in certain anime and manga series, such as Loveless, a boy may be compared to a cat in a similar way catgirls are. In those occasions, they are sometimes referred to as catboys (or catboys). Understandably, Bishounen catboys are typically associated with shoujo and yaoi.

Hermione Granger from the Harry Potter series is sometimes depicted as a catgirl in Japanese doujinshi due to her accident with the Polyjuice Potion in Harry Potter and the Chamber of Secrets, in which she temporarily took on many characteristics of a cat.

In some circles, *catgirl* is a disparaging term for a stereotypical hyperactive and obnoxious fangirl, who might wear cat ears as an accessory while at conventions.

## List of catgirl characters

Amy Diamondstar from Exodus - Furry Rebellion! Amy is some kind of pink-furred cat.  
 Anya and Lisa (Foxgirl) from Tsunami Channel  
 Aisha Clan-Clan from Outlaw Star  
 Arf (doggirl) from Magical Girl Lyrical Nanoha  
 Aria and Lieze Lotte from Magical Girl Lyrical Nanoha A's  
 Bagi, title character of Bagi  
 Botan from Yu Yu Hakusho (she's not a catgirl, but occasionally, when she is caught in a lie, she assumes a catgirl appearance).  
 Cat Lady in the motion picture Star Trek V: The Final Frontier (1989), portrayed by stuntwoman Linda Fetter.  
 Calico Ashigari from Exodus - Furry Rebellion!  
 Captain Amelia from Treasure Planet. Voiced by Emma Thompson  
 Cham-Cham from Samurai Shodown II (not actually a catgirl, but wears cat ears)  
 Chen from Perfect Cherry Blossom.  
 The Cheshire Cat from Miyuki-chan in Wonderland

Chinami and Yuriko from Ground Defense Force! Mao-chan  
 Dejiko (aka Princess Chocolla, Digiko, or Di Gi Charat) and Puchiko (aka Petit Charat or  
 Cappuccino), stars of Di Gi Charat  
 Dora the Explorer Dora's Halloween, costumed as Catgirl.  
 Fam from Ruin Explorers  
 Felicia from Darkstalkers  
 Foxy Love from Drawn Together (foxgirl). Foxy's ears are only part of her hat, but her tail  
 actually seems to be part of her body.  
 Foxy Malone from Exodus - Furry Rebellion!  
 Hazuki from Tsukuyomi - Moon Phase (she is not actually a catgirl, but wears cat ears and  
 behaves like one)  
 Hojo no Ruri from Onmyou Taisenki  
 Ichigo Momomiya (Zoey Hanson in the English adaptation) from Tokyo Mew Mew (The  
 English version is titled Mew Mew Power)  
 Dr. Katherine "Kat" Manx (Cat Ranger) from Power Rangers SPD A feline alien and head of  
 research and design at the SPD Academy. She created the Delta Morphers alongside the  
 parents of the B-Squad Rangers. Unlike most catgirls, Dr. Manx does not have a tail (or if she  
 does, it was never shown on the program). (Portrayed by Michelle Langstone)  
 Kate from the webcomic Anime Arcadia ([link](#))  
 Katt from Breath of Fire 2  
 Kitty Navilos from The Rogue's Gallery by Alan Solivan (not a real catgirl, just wears fake  
 ears and a tail )  
 Kizna Towryk from Pilot Candidate (she is not actually a catgirl, but has implanted cat ears)  
 Koboshi from Pita-Ten (she is not actually a catgirl, but wears cat ears)  
 Kohaku from Melty Blood (she has several animations as a catgirl)  
 Koto (foxgirl) from YuYu Hakusho  
 Kuaru from Lunatic Night (cat or dog? All that's said is that she can transform into a "Furry  
 Beast")  
 Lethe from Fire Emblem: Path of Radiance  
 Mao from the PlayStation2 game "Shining Tears" (no tail, but natural cat ears and catlike  
 agility)  
 Maya from Geobreeders (she can look like a catgirl, though she usually chooses not to)  
 Meirin and Tamamo-no-Mae (foxgirls) from Yami to Boshi to Hon no Tabibito  
 Merle, Naria and Erya from Vision of Escaflowne  
 Miau from Little Monica (she behaves like a catgirl, wearing cat ears and a tail as well)  
 Miss Nyako and her nice, Konyako, from Eden's Bowy  
 Mithra, the race of cat-like humanoids from the video game Final Fantasy XI  
 Myao,a witch from the Playstation game Rhapsody:A Musical Adventure  
 Lt. M'ress, a Caitian communications officer (voiced by Nichelle Nicols), from Star Trek  
 Animated Series  
 Most characters from Loveless.  
 Natsuki from Hyper Police (who is a nekomusume)  
 Nei and Fal (a.k.a. Rika) from Phantasy Star II and Phantasy Star IV respectively. There is  
 some dispute that the "Nei-type" or "Numan" is not a catgirl because they lack tails.  
 Neko (a staff member) and the species Kera'sha from the book series Dragon Tamers,

appearing from the second book onwards.  
Nia from from DearS  
Nina from Words Worth  
Atsuko Natsume a.k.a. Nuku Nuku from All Purpose Cultural Cat Girl Nuku Nuku (she is a cat/human cyborg, with human appearance)  
Norn from Atelier Iris  
Nya from To-Y (not a real catgirl, just wears fake ears and a tail)  
Ouka (wolfgirl) from .hack//Legend of the Twilight  
Pink from Dragon Pink  
The Puma Twins, Anna and Uni, from Dominion Tank Police  
Sera from Sonic the Hedgehog  
Shader from Chrono Crusade  
Shrodinger from Hellsing (Actually, he is a catboy, cat ears and all.)  
Taruto and others from Magical Nyan Nyan Taruto  
Uriko from Bloody Roar  
Yoriko from Da Capo  
Youko (foxgirl) from Tactics

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## Cats in Ancient Egypt

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**Cats** (*Felis catus*) are among the most common pets in the world. In the United States, for example, according to a survey released by the American Pet Products Manufacturers Association, feline pets number around 77 million. Even though cats have now overtaken

dogs in popularity in the US, and are enormously popular elsewhere, the history of feline domestication is not as well known as that of their canine counterparts.

In 1888, an Egyptian farmer accidentally uncovered a large tomb containing thousands upon thousands of mummified cats and kittens. This discovery, outside the town of Beni Hasan, contained around eighty thousand cat bodies that date back to 1000-2000 BCE.

## Cats in other religions

Feline reverence is not peculiar to Ancient Egyptian civilisation. Muslim theology maintains that the prophet Muhammad once found a cat sleeping on his robe; instead of waking it, he cut a hole through his robe so as not to disturb the animal. This reverence can be found in ancient Indian texts, where records of cats involved with human society can be found in two ancient Indian great epics, the Ramayana and Mahabharata, circa 500 BCE. As the Hindu and Parsee religions respected all forms of life and were especially sympathetic towards cats, all good Hindus were expected to take care of at least one cat during their lives. By contrast, the Islamic culture generally regards dogs as somewhat unhygienic animals.

Not every culture has viewed cats with reverence. The superstitious persecution of cats by the Roman Catholic Church may have been one of the contributing factors in the Black Death in the Middle Ages.

## Cats in everyday life in Ancient Egypt

The exaltation of cats in Ancient Egypt most likely began with their contribution to agriculture. Feral cats, or "reed cats", naturally preyed upon the rats and other vermin that would otherwise eat from the royal granaries. They earned their place in towns and cities by killing mice, poisonous snakes and other pests.

The two main breeds of cat native to Egypt were the jungle cat *Felis chaus* and the African wildcat *Felis silvestris lybica*. The latter of these was more commonly domesticated, largely due to its temperament. The jungle cat was not nearly as peaceful, and was probably not especially helpful in the initial phases of domestication.

The African wildcat, the more placid of the two, easily coexisted with the human population who were eager to rid their streets of vermin. In return the cats received protection from humans, in the sense that they would be safe from other predators as long as they remained near human habitats. These two species eventually fused to create a new breed of cat, related to the modern-day [Egyptian Mau](#).

The change in temperament is attributed to two principal factors: heredity and learned tolerance of humans. The changes due to domestication follow a pattern similar to other domesticated animals including wolves (dogs), and cattle. These changes include coloration as there is less need for camouflage in captivity than in the wild, smaller brain size due to the gradual elimination of unnecessary survival instincts, and an overall decrease in size due to the change in diet and habitat.

In *Cats: The Rise of the Cat*, Roger Tabor suggests that the domestication process is due to two possible reasons. Gaining confidence around humans through frequent contact at the granaries, cats began to venture into settlements, attracted by the indigenous bird and

vermin population. Breeding within itself, a large population of cats could develop, and would continue on doing so at an exponential rate. Additionally, familiarity with human society was aided by the association of cats with the goddess Bast - Egyptian temple priests would often keep cats at their temple as a representative of the goddess.

Additionally, in their book *Wild Cats of the World*, Mel Sundquist and Fiona Sundquist suggest that a likely route to domestication was through the rearing of kittens captured from the wild. Fashionable Egyptian society tamed wild animals of all kinds using this method, including baboons, lions and gazelles in menageries at the most wealthy households.

## Cats in Egyptian mythology

Egypt was not always unified; initially, it was a land with many regional tribes and nomes. Many nomes had a totemistic system of religion, centering the worship of an animal as a spiritual symbol. Some peoples would choose a totem animal because of the services it provided, some for admirable qualities, some out of fear. Regardless, when war broke out between peoples, the tribe that won was able to demand more respect for their totem, and mandated its worship. Eventually an empire was formed under Menes circa 3100 BCE, and a more pluralistic form of totemism was established. Ibises, eagles, and beetles were among the totems worshipped alongside cats.

The Egyptians viewed their gods not as simple spirits but as intelligences that could be personified in a body. The earliest evidence of cats as deities comes from a 3100 BCE crystal cup decorated with an image of the lion-headed goddess Mafdet. The goddess Bast was originally depicted as a fiercely protective and warlike lion, but as her image "softened" over time she became more strongly associated with domestic cats.

As cats were sacred to Bast, the practice of mummification was extended to them, and the respect that cats received after death mirrored the respect they were treated with in everyday life. The Greek historian Herodotus wrote that in the event of a fire men would guard the fire to make certain that no cats ran into the flame. Herodotus also wrote that when a cat died, the household would go into mourning as if for a human relative, and would often shave their eyebrows to signify their loss.

Such was the strength of feeling towards cats that killing one, even accidentally, incurred the death penalty. Another Greek historian, Diodorus Siculus, describes an interesting example of swift justice imposed upon the killer of a cat: about 60 BCE, he witnessed the chariot of a Roman soldier accidentally run over an Egyptian cat. An outraged mob gathered and, despite pleas from pharaoh Ptolemy XII, killed the soldier.

## Bubastis and the Cult of the Cat

Although the cat cult was an significant religious movement by the birth of the New Kingdom it gained new importance when Shoshenq I developed Bubastis, chief centre of worship for the goddess Bast, located east of the Nile Delta, into an important city. At the same time, Bast developed into an immensely popular and important deity representing fertility, motherhood, protection and the benevolent aspects of the sun - along with Sekhmet, she was known as the Eye of Ra. The cult of the cat garnered a huge following and thousands

of pilgrims journeyed each year to Bubastis to celebrate. Bubastis also became another name by which the goddess was known.

Close to the centre of the city lay a large temple to Bast. This temple was in a depression which sited it at a lower elevation to the rest of the city, which had been raised to minimize flood damage from the nearby. Of this Herodotus, who visited the city in 450 BCE, wrote that although the size of the shrine to Bast was perhaps 'not as large as those of other cities, and probably not as costly, no temple in all of Egypt gave more pleasure to the eye'.

Herodotus went on to describe the temple in detail. A canal within this depression gave the temple the appearance of a man-made island. In the courtyard was a grove of trees leading the way to the interior, which contained a massive statue of Bast - and a great number of sacred cats, cared for by the temple priests with donations from pilgrims. The temple's cat population, while respected, was extremely large and needed to be moderated by the periodic sacrificial culling of kittens, which were then mummified and sold to pilgrims as reliques.

Bubastis became a marketplace for merchants of all sorts; artisans came forth with thousands of bronze sculptures and amulets depicting cats to worshippers of Bast. These amulets commonly featured an image of a cat and its kittens and were often used by women trying to have children, praying to Bast that they be granted the same number of children as kittens depicted on the amulet.

Herodotus wrote that the annual festival of Bast held in the city was the one of the most popular of all, with attendees from all over Egypt, who would raft down the Nile celebrating and feasting all the way. When they arrived in Bubastis, they feasted yet more and made sacrifices to Bast.

The famed revelling and commercialism of Bubastis even made its way into Judeo-Christian mythology. In the sixth century BCE, the prophet Ezekiel wrote that "The young men of Aven and of Pibeseth [Bubastis] shall fall by the sword: and these cities shall go into captivity" Ezekiel 30:17. Ezekiel believed that these cities would be punished, like Nineveh, for their perceived paganism and sin.

By 525 BCE, Egypt was essentially the only empire not conquered by the Persians. At that point Cambyses, the son of Cyrus, set out to do just that. Cambyses and his army crossed the fifty-six mile stretch of desert to the Egyptian outpost of Pelesium on camelback; they then clashed down upon the Egyptian army who were reluctant to strike back at the sacred symbol of the cat upon the Persian shields.

## Funerary traditions

Herodotus noted that cats who died anywhere in Egypt were often taken to Bubastis to be mummified and buried in the great cemetery, but this may or may not have been the case. At the burial site in Bubastis the Swiss Egyptologist Edouard Naville found more than 20 m<sup>3</sup> (720 cubic feet) of cat remains but also a great deal of evidence of cremation. Naville found stacks of cat bones in many pits, the walls of which were made up of bricks and clay. Near each pit lay a furnace, its bricks blackened from fire. This discovery causes some problems. The mummification and preservation of the body was intended to make it possible for the deceased's ka to locate its host and subsequently be reborn into the afterlife. As the body

would have to be intact for this process to occur, cremation would seem an undesirable way of dealing with the body of a sacred creature with a *ka*. Nevertheless, many cats were afforded the full embalming ceremony and buried in other great cemeteries along the Nile.

In her book *The Cult of the Cat*, Patricia Dale-Green states that, "The cat's body was placed in a linen sheet and carried amidst bitter lamentations by the bereaved to a sacred house where it was treated with drugs and spices by an embalmer". She goes on to state that although the cat of an Egyptian noble would receive more extravagant burial status, the body of a worker's cat would still be carefully prepared and the embalming carried out with the same conscientiousness as for a human body, often with provisions for the afterlife such as pots of milk and even mummified mice.

Nowhere, perhaps, is this appreciation shown more than in the colossal tomb at the temple of Bast discovered in 1888. This tomb, outside of Beni Hasan, held more than nineteen tonnes of animal mummies and remains, the vast majority being cats but a number of mongooses, dogs and foxes were amongst the specimens that made it to the British Museum. The farmer who made the discovery sold most of the tomb's contents to be ground up as fertilizer, but fortunately a number of specimens made it into the hands of scientists for testing and examination. Some of these are on display at the British Museum.

The sole Egyptologist to visit the site, William Martin Conway, wrote: "The plundering of the cemetery was a sight to see, but one had to stand well windward. The village children came [...] and provided themselves with the most attractive mummies they could find. These they took down the river bank to sell for the smallest coin to passing travelers. The path became strewn with mummy cloth and bits of cats' skulls and bones and fur in horrid positions, and the wind blew the fragments about and carried the stink afar". (quoted in Tabor p26).

Recently, during the making of his documentary for the BBC, *Cats: The Rise of the Cat*, Roger Tabor discovered a further cat cemetery at Bast's temple. This find consists of a twenty centimetre-thick layer of compressed mummies which spans more than sixty metres in length.

## The decline of cat-worship

The cult of Bast was officially banned by imperial decree in 390 CE. Egypt has since experienced a decline in the respect once held for cats and although they are still kept as pets and tolerated elsewhere because they catch pests, the cat has lost practically all religious significance in modern Egypt.

## References

- Dale-Green, Patricia (1963) *The Cult of the Cat*, Weathervane Books, ISBN 0-517-17500-2
- Sundquist, Mel; Sundquist, Fiona (2002) *Wild Cats of the World*, Univ. of Chicago Press, ISBN 0-226-77999-8
- Tabor, Roger (1991) *Cats: The Rise of the Cat*, BBC Books, ISBN 0-563-36011-9

- Trumble, Kelly; Kubinyi, Laszlo (1999) *Cat Mummies*, Houghton Mifflin, ISBN 0-395-96891-7

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## Felis

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European Wild Cat, *Felis silvestris*

Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Carnivora
Family:	Felidae

Genus: **Felis** Linnaeus, 1758

**Felis** is a genus of cats in the family Felidae.

Species in the genus include:

- Chinese Desert Cat, *Felis bieti*
- Jungle Cat, *Felis chaus*

- Sand Cat, *Felis margarita*
- Black-footed Cat, *Felis nigripes*
- Wild Cat, *Felis silvestris*
  - European Wild Cat, *Felis silvestris silvestris*
  - Indian Desert Cat, *Felis silvestris ornata*
  - [Domestic Cat](#), *Felis silvestris catus*
  - African Wild Cat, *Felis silvestris lybica*

Species previously placed in the genus but now considered not to belong include:

- Caracal, *Caracal caracal*
- Pallas Cat, *Otocolobus manul*
- Ocelot, *Leopardus pardalis*
- Margay, *Leopardus wiedii*
- Puma, *Puma concolor*

There is also the [fictional](#) species *Felis sapiens* in the comedy science fiction setting Red Dwarf.

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**Felis Britannica** is the United Kingdom Member of the [Fédération Internationale Féline](#) (FIFe).

FB registers and shows [cats](#) under the rules of FIFe. Registrations and show awards at FIFe International Shows are recognised by all other member of FIFe.

Felis Britannica is itself a federation of cat clubs all over the UK which organise shows licenced by FB. Individuals can be members of several clubs, but to register pedigree kittens, you have to nominate one club to handle your registrations and to claim show awards.

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## Feral Cat Colony

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A **feral cat colony** is a local population of [feral cats](#) living in a specific location and using a common food source such as food scavenged from dumpsters or supplementary feeding by humans. Feral cat populations and colonies are located worldwide, including parts of the world where the domestic house cat is an introduced species, such as the Americas and Australia.

Those familiar with feral cats disagree on how many cats must be present for the population to be considered a "colony", with some who consider even a single feral cat that is regularly present at a site to be a colony, while others would require multiple cats to be present in a location at a higher density than the baseline population in surrounding areas.

Feral cat colonies form when irresponsible humans intentionally abandon their unsterilized pets or allow them to wander off, or if the pet escapes before planned sterilization. Colonies can also arise when changes in human activity create an opportunity for existing baseline feral cat populations to form a locally concentrated group. For example, the opening of a new restaurant and resulting presence of edible garbage can attract cats from the local population and allow them to breed and survive in larger numbers.

The feral colony around the Pantheon, Rome is given long legendary history at that location.

## Colonies often considered a nuisance

When a feral cat colony grows to a large size, those living or working nearby might consider the presence of a locally concentrated cat population to be a nuisance. Specific concerns often include:

- Urine spraying to mark territory
- Digging in gardens and feces left by the cats
- Noise made by fighting and mating cats
- Predation upon wildlife
- Diseases transmissible to humans (zoonoses)
- Diseases transmissible to pets
- The poor state of health of the cats in the colony
- The likelihood of population growth

Those who consider feral cat colonies to be a nuisance traditionally have attempted to eliminate the colony, by requesting that municipal or private pest control services trap the cats and remove them (typically to be euthanized). However, if the factors that allowed the colony to develop in the first place (e.g. food resources) are not addressed as well, a new colony can form in the same location when cats that escaped trapping and cats from the surrounding area move in and breed.

## "Managed" colonies

More recently, a number of animal welfare organizations have begun to employ the "Trap-Neuter-Return" (TNR) method to deal with the issue of feral cat colonies, sometimes with the support of local municipalities. This approach includes sterilization of the cats to prevent breeding, removal (and euthanasia of sick or injured cats), vaccination, marking, and return of healthy cats to the site, and rescue of kittens and other tame cats to adoptive homes. Groups promoting this approach believe that it addresses many of the concerns of those who might otherwise consider the colony a nuisance, and provides a palatable alternative for cat lovers who might otherwise take no action to prevent the population from growing.

A colony in which the TNR method is being used to sterilize the cats and that is under the regular care and observation of a caretaker is known as a **managed colony**.

## Breeds arising from feral cat colonies

Two [breeds of cat](#) have been developed recently from feral cat populations. The [Egyptian Mau](#) was developed from Egyptian feral cat colonies in the 1950s. The [American Keuda](#) is being still developed from barn cat colonies in the US Southwest from the 1980s.

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## Fédération Internationale Féline

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The **Fédération Internationale Féline** (or FIFE) is a federation of cat registries. There are currently thirty-nine member organizations in thirty-seven countries. Membership spans Europe, South America, and Asia.

Founded by Madam Marguerite Ravel, the federation was unofficially started in 1949 in Paris, France. At their first General Assembly in Ghent, Belgium, the federation was officially founded. The original name was Fédération Internationale Féline d'Europe or FIFE. In 1972 the Brazilian Cat Club joined, making it necessary to change the Euro-centric name of the federation. The "d'Europe" was dropped, and the abbreviation was changed to FIFE.

The emphasis of the federation is on the health and well-being of their cats.

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## Kitten

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The term **kitten** (Old English genitive of *Cat*) most commonly refers to a pre-adolescent [cat](#). It may also refer to a young rabbit, rat, hedgehog or squirrel. This article discusses kittens of the domestic cat.

## Birth and development

A litter of kittens usually consists of three to six kittens. Born after approximately 63 days of gestation, kittens emerge in an amnion which is bitten off and eaten by the mother cat. For the first several weeks, kittens are unable to urinate or defecate without being stimulated by their mother. They are also unable to regulate their body temperature for the first three weeks, so kittens born in temperatures less than 27°C / 80°F are at risk for death from exposure if they are not kept warm by their mother.

Kittens open their eyes about seven to ten days following birth. At first, the retina is poorly developed and the vision is poor. Kittens are not able to see as well as adult cats for about three months. Cats cannot see in total darkness, but what seems dark to humans may just be an extremely low light level, sufficient for feline vision. This dim light vision is somewhat fuzzy and they cannot distinguish detail. During daylight, their vision is far more acute.

Between two and seven weeks kittens develop very quickly. Their coordination and strength improve and they spar with their litter-mates and begin to explore the world outside the nest. They learn to wash themselves and others and play hunting and stalking games. If they are outdoor cats their mother or other adult cats may demonstrate hunting techniques for them to emulate.

Gradually, as they reach one month of age, the kittens are weaned and begin to eat solid food. Kittens live primarily on solid food after weaning but usually continue to suckle from time to time until separated from their mothers. Some mother cats will scatter their kittens as early as at three months of age while others continue to look after them until they approach sexual maturity.

Between two and six months, kittens grow quickly, going through a "leggy" and energetic phase. By the end of its first year, the kitten has become a cat, although some larger [breeds](#) such as the [Maine Coon](#) may take a few more months to attain full adult size. The breed [Manx](#) requires a full five years before becoming fully grown. Kittens usually become sexually mature at six to eight months, but females in particular can mature earlier. Kittens' gender can be determined relatively easy around the age of six to eight weeks, although it is also possible at earlier stages of development. Males' urinal opening is round, whereas females' is a slit. Also the distance between anus and urinal opening is greater in males than in females.

Kittens are highly social animals and spend most of their waking hours interacting with their mother and littermates. Although domestic kittens are commonly sent to new homes at six to eight weeks of age, some experts believe that being with its mother and littermates from six to twelve weeks is important for a kitten's behavioral development. Most cat breeders will not sell a kitten that is younger than twelve weeks.

The young of species in the genus *Panthera*, and of some other big cats, are called cubs rather than kittens. Either term may be used for the young of smaller wild felids such as ocelots, caracals, and lynxes, but "kitten" is usually more common for these species.

## Caring for domestic kittens

Kittens require a diet higher in protein and fat than adult cats do. From weaning until about one year of age they should be fed a diet specifically formulated for kittens. Most veterinarians recommend that kittens be vaccinated against common illnesses beginning at 2-3 months of age and [spayed or neutered](#) at 5-8 months of age. Some veterinarians will spay or neuter kittens who are as young as 6-8 weeks. This practice is particularly common in animal shelters. Kittens should also be wormed against roundworms from 4 weeks.

Orphaned kittens who are too young to eat solid food should be fed a commercial cat milk replacement formula every two to four hours. Kittens should not be fed cow's milk because it does not provide all of the necessary nutrients and may cause diarrhea. Orphaned kittens who are too young to urinate and defecate at will should be stimulated to do so by rubbing with a damp washcloth after each meal.

If your kitten develops diarrhea, the best treatment is removal of food for 12 hours (provide access to water only). Slowly reintroduce small amounts of bland food such as boiled chicken and rice. Slowly reintroduce their usual food, avoiding 'strong' varieties, such as beef and liver-based food. Your kitten may also need to be dewormed, as parasitic infestation may be to blame.

## Perceptions of cuteness

Feline kittens are stereotypically (and typically) very cute to human perception. Entire websites such as [Kittenwar.com](#) are devoted to the cute look and behavior of kittens.

There are good evolutionary reasons to expect humans to find juvenile humans, and perhaps juvenile animals in general, cute. This is related to the novelty of the exaggerated size of the head that is common to juvenile mammals and many other species. Why humans find [cats](#) in general cuter than most other species remains a topic of speculation. It may be the retention of some aspects of the scheme of childlike characteristics: the relative lack of a distinct snout (in favor of something approaching a snub nose) and the relatively round face and big eyes, all characteristic of human young.

As a result of these perceptions, kittens are sometimes referred to figuratively as something pleasant to view, or as something that will induce affectionate or protective behaviour in humans. The enormously popular (and profitable) Hello Kitty franchise, among other phenomena, plays on this perception.

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## Pedigree

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A **pedigreed cat** is a cat that has its ancestry recorded and tracked by a major cat registry. The number of generations required varies from breed to breed, but all pedigreed cats have papers from the registering body that attest to its ancestry.

Sometimes [purebred](#) is used to mean pedigree, but as all breeds came from random bred cats originally, the term pedigree is preferred.

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## Points (Coat Color)

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**Point coloration**, often mistakenly called '[Siamese](#) coloring' this pattern is seen not only in Siameses, but also in many other [cat breeds](#), and in mixed breed or [moggy](#) cats.

The point pattern is expressed by limiting pigment to the coldest areas of the body, namely the face, ears, tail and legs. This means that point [kittens](#) are often born white, since there is little temperature difference in the womb. As the kitten ages, the cooler areas darken and warmer areas cause the pigment to become unstable and show up as only a creamy to white color. Points are not limited to solid colors or dark colors. It is possible to have a red (orange color) or fawn (pale warm gray) point. It is also possible to have a [tortoiseshell](#) or [tabby](#) point. If the points are not black or at least very dark, the coloration is called *colorpoints*.

Because of this restriction of pigment, point cat's eyes are always some shade of blue, because the top layer of the iris is not covered in another color, letting the blue show through. The back of the eye also lacks pigment, giving these cat's pupils an eerie red reflection in the dark, unlike a normally pigmented cat's green to blue shine.

The point gene is carried on the C locus, where albinism is also carried. It is shown with the sign cs, and needs two alleles of cs for the point to be expressed. The point gene is recessive to the [tabby](#) gene. Also carried on the C locus is the gene for the sepia pattern. This is the darkest of all of the pigment restricting patterns, and pigment is only paled at the warmest point in the body, the abdomen. This pattern's gene is represented by cb. When a cat carries the genes cs and cb, the mink pattern is formed, in which the pigment distribution is between a sepia and a point cat.

## Breeds with points

These breeds either include points in the breed standard, or often contain the coloration:

- [Himalayan](#)

- [Birman](#)
- [Balinese](#)
- [Colorpoint Shorthair](#)
- [American Bobtail](#)
- [American Curl](#)
- [Oriental Shorthair](#)
- [Ragdoll](#)
- [Cornish Rex](#)
- [Devon Rex](#)
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## Purr

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Some species of felines make a sound which is called a **purr**. It varies in detail from cat to cat (e.g., loudness, tone, etc.), and from species to species, but can be characterized as a sort of tonal buzzing. Some cats purr so strongly that their entire body vibrates. Cats purr at 27 - 44 hertz.

## How felines purr

Cats produce the purring noise by vibrating their larynx, or voice box, in a particular manner. They have a timing mechanism in the brain which sends neural messages to a muscle in the larynx, rhythmically opening and closing the air passage several times per second. Combined with the steady inhalation and exhalation of air as the cat breathes, a purring noise is produced.<sup>[1]</sup>

Cats can either purr or roar, one exception being the tigers which can purr but only in one direction. In general, small cat species purr, while larger ones roar, although pumas and cheetahs purr and do not roar.<sup>[2]</sup>

## Historical theories

One theory held involved blood hitting the aorta. Another held that purring might have been caused by the vibrations of the hyoid apparatus, a series of small bones connecting the skull and the larynx that nominally serves to support the tongue. Yet another theory held that cats might possess a special purring organ, though none was found.

## Why felines purr

Humans usually interpret the purring of a domestic cat as an expression of some type of friendliness or contentment. This assumption is based on the observation that cats often (though not always) purr when being stroked by humans, combined with the experience that human children tend to enjoy stroking by their parents and interpret it as a gesture of affection. Consequently, most humans enjoy listening to or holding a purring cat.

It is, however, not entirely clear to scientists whether this really is one of the cat's reasons for making the sound; it is well established that a cat also purrs when it is uneasy, nervous or in great pain, perhaps to comfort itself or to express submission. Other theories suggest that a cat purrs when it wants, needs, or is receiving attention, whether it be affection or medical treatment. Purring may also reduce pain, help a wounded cat to heal, or even help to keep a cat's bones strong.

Ethologist Paul Leyhausen, in his book **Cat Behavior**, interprets purring as a signal meaning "I am not a threat" to explain the otherwise differing circumstances that elicit the sound.

## Other examples of purring

It is not clear quite how and when purring is used between cats themselves, which is probably a more important issue bearing on its primary purpose than how and why it happens when humans are involved. One speculation is that it is a signalling mechanism between mother cat and nursing kittens. Female cats are known to purr while giving birth, and this may be to reduce the pain and also assist post-natal healing. Kittens purr while nursing, presumably as an "all's well" signal to their mother.

Some cats seem to be able to meow without interrupting the purring sound.

## References

1. [^ How A Puma Purrs](#)
2. [^ Cheetahs can purr.](#)
3. [Why do Cats Purr?](#)

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# Selective Breeding

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**Selective breeding** in domesticated animals is the process of developing a cultivated [breed](#) over time.

## Selective Breeding Methods

In general, the owners of the animals use three strategies to refine local populations:

1. Isolation. There must be a period in which the members of the group are relatively fixed, so that no new genetic material comes in. Without genetic isolation of the group, the differentiation that creates a new breed cannot take place.
2. Artificial selection. Breeders must *prevent* random mating from coming about, and limit mating to those individuals who exhibit desired characteristics. One logical consequence of this isolation is the next characteristic: inbreeding.
3. Inbreeding. Ordinarily those who are controlling the artificial breeding will find it necessary at some stage to employ a degree of linebreeding (mating within one bloodline, or strain) or inbreeding (mating closely related individuals), to facilitate the weeding-out of undesired characteristics and the fixation of desired traits. Inbreeding and linebreeding are controversial aspects of artificial selection, but have been practiced for centuries.

The Appaloosa horse, which was developed by the Nez Percé Indians in the Northwest United States, provides an example. The Spanish colonists had established horse breeding in what is now New Mexico by about 1600, and the Spaniards of that era were known to have horses with spotted coats. By 1806 (when they are mentioned in journals kept by the Lewis and Clark expedition) the Nez Percé were observed to have developed strong, hardy, spotted horses.

It is not known if the Nez Percé practiced inbreeding, but they were reputed to geld stallions judged unsuitable for breeding, and to trade away mares likewise unsuitable for breeding, which accomplishes the goals of isolation and artificial selection.

In Europe, the first use of this process was recorded in mid 18th century England, by Robert Bakewell and Thomas Coke

## Closed vs. open studbook

A studbook is the official registry of approved individuals of a given breed kept by a breed association. It is said to be "closed" if individuals can be added only if their parents were both registered. It is said to be "open" if individuals can be added without their parents being registered, such as by inspection.

Studbooks have been kept for centuries; the concept of the breed associations and clubs is more recent. Most of the "purebred horses" have open studbooks. For example, a "purebred" Arabian mare can be "examined" by the Trakehner authorities; if she is found acceptable, her offspring can be registered as Trakehner. By contrast, the studbooks of purebred dogs only remain open if the breed is under development or if there is deemed to be an insufficient genepool.

## Crossbreeding and backbreeding

In some registries, breeders may apply for permission to crossbreed other breeds into the line to emphasize certain traits, to keep the breed from extinction or to alleviate problems caused in the breed by inbreeding from a limited set of animals. A related preservation method is backbreeding, used by some equine and canine registries, in which crossbred individuals are mated back to purebreds to eliminate undesirable traits acquired through the crossbreeding.

Some horse societies accept crossbreds who meet certain criteria onto the breed registry.

## Purebred Cats, Dogs and the Debate over 'Breed Purity'

Most purebred cats and dogs of [breeds](#) recognized by all-breed club registries are controlled by "closed studbooks". In a number of modern breeds recognized by the kennel clubs, there are high incidences of specific genetic diseases or disorders and sometimes increased susceptibility to other diseases, reduced litter sizes, reduced lifespan, inability to conceive naturally, etc. This came about because:

1. Many breeds have been established with too few foundation dogs or ones that were already too closely related, or both
2. There was artificial isolation: the registries (stud books) are closed for most breeds; therefore one cannot introduce diversity from outside the existing population.
3. Most selective breeding practices have the effect of reducing the diversity further. In addition, in the show world, breeding specimens are often selected on the basis of aesthetic criteria only, without regard for soundness.
4. Even if the foundation dogs were sufficiently diverse genetically, almost no one knows how their genetic contributions are distributed among the present day population, consequently, breeding is done without regard to conserving these contributions, which may be of value to the general health and survival of the breed.

Similar problems affect purebred cats, however to a lesser extent since selective breeding in cats has not been practiced for nearly the length of time that it has been in dogs. The

purebred cat is a relatively new creature; some breeds of cats have existed less than fifty years.

## Purebreds

The very idea of 'breed purity' often strikes an unpleasant chord with modern animal fanciers because it is reminiscent of nineteenth-century eugenics notions of the "superior strain" which were supposedly exemplified by human aristocracies and thoroughbred horses. The application of theories of eugenics has had far-reaching consequences for human beings, and the observable phenomenon of hybrid vigor stands in sharp contrast.

The idea of the superior strain was that by "breeding the best to the best," employing sustained inbreeding and selection for "superior" qualities, one would develop a bloodline superior in every way to the unrefined, base stock which was the best that nature could produce. Naturally the purified line must then be preserved from dilution and debasement by base-born stock. This theory was never completely borne out. It can be said that when the ideal of the purified lineage or aesthetic type is seen as an end in itself, the breed suffers over time. The same issues are raised in the world of purebred [cats](#).

His claim that selective breeding had been successful in producing change over time was one of the key arguments proposed by Charles Darwin to support his theory of natural selection in his acclaimed yet controversial work *Origin of Species*. Here, the "selective" does not mean breeding selected in a humanly controlled fashion.

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## Show

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A **show** is a judged event or display in the hobby of animal fancy or in the occupation of animal husbandry.

Shows feature the best specimens of purebred animals in a locality or country. Prestigious shows or those with large purses (prize money) to be won may attract exhibitors from around the world.

Typically, shows are an opportunity for breeders to feature their best breeding stock, so animals in a show are usually *entire*, that is, the animal has not been spayed or neutered.

Animals compete for the title of Best of Breed, a distinction which can add significant value to a breeder's lines. The top prize in a show is usually the title Best in Show or Best (or Supreme) Exhibit in Show.

Animals typically "shown" include:

- [cats](#)
- cattle
- dogs
- guinea pigs (often called "cavies" when show animals)
- horses
- sheep
- rats
- mice
- poultry

## See also

- [cat show](#)

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## Show Cat

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A **show cat** (also known as a [purebred cat](#) or [pedigreed cat](#)) is one that has been judged to be close to the physical ideal for its [breed](#) standard at a [cat show](#). Not all pedigree cats are show cats, many are just pets but the ones with the best conformation and personality are often shown in associations such as the CFA and TICA in the US, the GCCF in the UK or the FiFe in the rest of Europe. Uncommonly, a prize-winning pedigree show cat can be worth thousands of dollars but most are loved pets. In order to compare examples of breeds and improve stock, cat shows are held where judges evaluate the cats according to a breed standard. Pedigreed cats are often identified with microchip implants.

A common misconception is that all pedigree cats are less healthy than random bred cats due to inbreeding. Not all pedigree cats are excessively inbred, however; in the past, this was the case with some breeds, before the modern understanding of genetics was widely circulated. Currently, breeders take great care to select for the healthiest animals, which has greatly reduced the incidence of health issues. Many of the worst, like PKD in Persians and HCM in Maine Coons, have been nearly eliminated due to preventive screening, long term tracking and study by geneticists.

Breeds have different origins, some are manmade or the result of mutation, while others are found in nature. Some breeds of cat have been created by taking a single tom cat or queen with an unusual physical characteristic that breeds true. The entire [Cornish Rex](#) breed can be traced back to a single parent animal with an unusual genetic mutation producing a curly coat. Both the [Burmese](#) and [Tonkinese](#) breeds can be traced back to a single cat, Wong Mau, which was brought from Burma in the 1930s. Breeders continually strive to eliminate negative characteristics that various cat breeds exhibit as the breeds are developed. There is not really any such thing as a 'purebred' cat since all registered breeds began as random bred cats. In this case, 'pedigreed' is a more accurate term.

Cat breeders are continually competing to find the 'ideal' of the breed - the cats that come closest to fitting the breed standard. Because of this, the physical characteristics of a prize-winning show cat have gradually changed in some breeds. This genetic shifting is most obvious in the two oldest, most popular and most distinctive breeds of show cat - the [Persian](#) and the [Siamese](#). However, some show cats are naturally occurring breeds that are perpetuated to keep the original look of a cat from a particular region. Examples are the [Maine Coon](#) and [Turkish Van](#).

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- [cat breed](#)

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## Taboo Food and Drink

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**Taboo food and drinks** are those that people avoid for religious, cultural or health reasons.

Certain religions forbid the consumption of certain types of meat. For example, Judaism prescribes a strict set of rules, called Kashrut, regarding what can and cannot be eaten. Certain sects of Christianity also hold to these or similar rules. In Islamic practice, the laws of Haram and Halaal dictate, among other things, certain foods which may not be eaten. Hindus, Jains and Buddhists often follow religious proscriptions for vegetarianism.

Cultural taboos against certain forms of meat may be due to the species' standing as a common pet. In addition, some meats are considered taboo simply because they fall outside of the range of the generally accepted definition of a foodstuff within a given society. This is not necessarily because the meat is considered repulsive in flavor, aroma, texture or appearance.

Some authorities impose cultural food taboos in the form of law. This is alleged to be dietary persecution and possibly human rights abuse. For example, even after resumption to Chinese rule, Hong Kong has not lifted its ban on supplying meat from dogs and cats, imposed in colonial times.

Health reasons may also contribute to a taboo. For example, eating undercooked pork has a risk of trichinosis, while many forms of seafood can cause extreme cases of food poisoning.

Medical food taboos come from professionals' advice that some food is known to exacerbate an illness, make a person more vulnerable to one or impede treatment.

## Pets

## Cats

[Cats](#) are eaten in parts of China. In Guangdong, China, cat is reportedly served along with snake in a dish called "The Dragon and the Tiger". In desperate times, people have been known to resort to cooking and eating cats, in places where it is otherwise not usual to do so, as it occurred in a poverty-stricken shanty town in Rosario, Argentina, in 1996 (though the much-advertised cat meal was later revealed to have been set up by media from Buenos Aires).

Cats are also used to produce medicinal potions such as Korean "liquid cat", a remedy for joint pain made by boiling cats with spices, and for their fur which is used to make fur coats and other fur clothing.

Cats are sometimes confused with civet cats. This has led Americans to accuse some Chinese manufacturers of using cat fur in their products. Others worry that some traditional medicines imported into the United States are of unknown animal origin. In 2001, a shipment of cat toys imported into the United States from China were recalled and destroyed because they were trimmed with cat fur, which had just been banned in the U.S.

Some Australian Aboriginal tribes have been known to hunt the [feral cats](#) as a secondary source of meat. One tribe well known for this activity believe this cat to be either indigenous or of ancient, non-European origin. However, one recent DNA analysis has shown its genetic similarity to British shorthair cats. Feral cats in Australia are regularly hunted, but not eaten, by non-Aborigines due to their being voracious pests. They are considered a danger to native species. There is a small minority of scientists who contend the cats are more likely to eat from rubbish dumps and other food sources provided by humans.

The term *roof-hare* (roof-rabbit) applies to cat meat presented as that of a hare, another pet used as a source of meat. Subtracting the skin, feet, head and tail, hares and cats are practically identical. The only way to distinguish them is by looking at the processus hamatus of the feline scapula, which should have a processus suprhamatus. *Pasar gato por liebre* ("to pass off a cat as a hare") is an expression common to many Spanish-speaking countries, equivalent to "to pull the wool over someone's eyes" derived from this basic scam. There is an equivalent Portuguese expression *Comprar gato por lebre*, meaning "to buy a cat as a hare".

## References

- *Unmentionable Cuisine*; Calvin W. Schwabe ISBN 0-8139-1162-1  
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## Taurine

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**Taurine** (from *taurus* = ox, as it was discovered in ox bile) or **2-aminoethanesulfonic acid** is an acidic chemical substance found in bile which acts as an emulsifier for ingested lipids and assists in their absorption. Taurine may also come from synthetic materials.

## Chemistry

Chemically, it is a colorless crystalline substance with the empirical formula C<sub>2</sub>H<sub>7</sub>NO<sub>3</sub>S, formed by the hydrolysis of taurocholic acid or decarboxylation of cysteine. Taurine is found in urine, as well as juices and fluids of muscle, lungs and nerve tissue of many animals, and plays several important roles in the body and is essential to newborns of many species. While it is often referred to as an amino acid, this is an inaccurate categorization since it does not contain any carboxylic acid functional groups.

## Physiology and Pharmacology

**Taurine has three major roles in human metabolism:**

- It plays a role in digestion. It is conjugated with the bile acids chenodeoxycholic acid and cholic acid to form (at the usually above 7 pH of bile) the bile salts, sodium taurochenodeoxycholate and sodium taurocholate.
- It may assist in the formation of reactive oxygen species for the respiratory burst in neutrophil granulocytes
- There is evidence that it is an inhibitory neurotransmitter in the central nervous system as well as a precursor to epinephrine.

It has been linked to a number of other metabolic functions but its role is not clear.

## Uses

It has been tested medically in the treatment of congestive heart failure, cystic fibrosis, [diabetes](#), epilepsy and several other conditions with positive results. It is used by some as a neutralizer for monosodium glutamate [\[1\]](#). However, neither the harmfulness of monosodium glutamate nor the benefit of taurine has been proven.

Sources of dietary taurine include shellfish and organ meats such as liver.

Taurine, it is hoped, could eventually be used to reverse liver damage caused by alcoholism or a heavy night's drinking. Tests show that taurine can reverse, or even prevent, the build up of liver fat.

Taurine is one of the active ingredients commonly found in energy drinks such as Red Bull, and in pills which often feature caffeine and/or other stimulant ingredients. The manufacturers claim that taurine enhances the effects of caffeine, but to date there have been no studies performed to confirm this.

Taurine is essential for [cats](#); [cat food](#) is supplemented with taurine, which is why other pet foods are not recommended for cats. In cats, taurine "helps maintain good eye health, regulate the heart beat, maintain cell membrane stability, and prevent brain cell over-activity" [\[2\]](#).

Taurine supplements may be important to counteract the effects of human aging on the natural taurine production process. As humans age, hepatic taurine production can fall or fail completely, producing low to no energy; cardiac, digestive, and mental problems; and premature death.

In biomedical research, taurine is also used in buffers for gel electrophoresis of nucleic acids.

Some multi-purpose solutions for contact lenses contain taurine. For example, one provider claims that [\[3\]](#) taurine protects corneal cells from osmotic stress and functions as an antioxidant. Taurine does occur naturally in tears and ocular tissues.

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## Winged Cat

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**Winged cats** are caused by one of three conditions. The most common is longhaired cats having matted fur. Felted mats of fur can form along the body and flanks if a longhaired cat is not properly groomed. When the cat runs, the mats flap up and down giving the impression of wings. These can be very uncomfortable for the cat and can harbour dirt, feces and parasites. Extensive mats must be removed by a veterinarian shaving them off.

The second most common cause of winged cats is a skin condition called Feline cutaneous asthenia which is related to Ehler-Danlos Syndrome (elastic skin) in humans. The third condition is a form of conjoining or extra limbs. These non-functional or poorly functional extra limbs would be fur covered and might resemble wings.

There are more than 138 reported sightings of winged cats. There are 28 documented cases (with physical evidence) and at least 20 photographs and one video. There is at least one stuffed winged cat, but this may be a nineteenth century fake or "grift". An undated taxidermy specimen in poor condition can be found in a museum in the Niagara Valley. It has bony structures near its shoulder blades covered with flaps of skin. These might be extra limbs.

## Historical Winged Cats

The earliest report of a winged cat is from Henry David Thoreau: *A few years before I lived in the woods there was what was called a 'winged cat' in one of the farm-houses in Lincoln nearest the pond, Mr. Gillian Baker's. When I called to see her in June, 1842, she was gone a-hunting in the woods, as was her wont ... but her mistress told me that she came into the neighborhood a little more than a year before, in April, and was finally taken into their house; that she was of a dark brownish-grey colour, with a white spot on her throat, and white feet, and had a large bushy tail like a fox; that in the winter the fur grew thick and flattened out along her sides, forming strips ten or twelve inches long by two and a half wide, and under her chin like a muff, the upper side loose, the under matted like felt, and in the spring these appendages dropped off. They gave me a pair of her 'wings,' which I keep still. There is no appearance of a membrane about them. Some thought it was part flying squirrel or some other wild animal, which is not impossible, for, according to naturalists, prolific hybrids have been produced by the union of the marten and the domestic cat.*

- In the 19th century, a winged cat at the centre of a custody dispute with one party claiming him to be their cat, Thomas, and the other claiming it to be their feline, Bessy.
- In "Animal Fakes and Frauds" (1976), Peter Dance described a 19th century winged cat that was preserved and offered for sale in the early 1960s. Its wings had grown when the cat was very young. It had been exhibited during the 19th century by a circus owner, but when its original owner demanded its return the cat mysteriously died. It was stuffed, but has not been properly examined.

- A "flying cat" was reported in India in 1868. It was shot by Mr Alexander Gibson and the skin was exhibited at a meeting of the Bombay Asiatic Society. Gibson believed it to be a cat, but others claim it to be a bat or flying fox.
- In August 1894, a cat with wings resembling those of a duckling was being exhibited by Mr David Badcock of Reach, Cambridgeshire, England. It was later stolen and turned up in Liverpool, England, but had shed its wings.
- In 1897 a [tortoiseshell](#) cat with pheasant-like wings projecting from each side of its 4th ribs was shot and killed in Matlock, Derbyshire. The story was reported in the High Peak News of Saturday 26 June 1897. Witnesses claimed the cat used its wings outstretched to help run faster.
- In 1899, London's Strand Magazine reported a 'winged cat' or kitten belonging to a woman living in Wiveliscombe, Somerset, England. Cat show judge HC Brooke, also described it in the weekly magazine "Cat Gossip" in 1927: *This cat had growing from its back two appendages which reminded the observer irresistibly of the wings of a chicken before the adult feathers appear. These appendages were not flabby, but apparently gristly, about six or eight inches long, and place in exactly the position assumed by the wings of a bird in the act of taking flight. They did not make their appearance until the kitten was several weeks old.* Unfortunately someone attempted to cut off the wings with fatal consequences for the cat.
- In 1933 or 1934, a winged black and white cat was captured in Oxford, England by Mrs Hughes Griffiths. She claimed it used its 6 inch wings to aid in jumping long distances. It was exhibited for a while at Oxford Zoo.
- In 1936, a winged cat was found on a farm near Portpatrick, Wigtownshire, Scotland. It was a white longhair and the wings were flaps 6 in (15 cm) long and 3 in (7.5 cm) wide on its back. They flapped up and down when the cat ran. This is consistent with badly matted fur.
- In 1939, "Sally," a black and white cat with a 24 inch wingspan from Attercliffe, Sheffield, England, was sold to a Blackpool museum of freaks.
- During World War II, an overweight black-and-white cat in Ashford, Middlesex became a local attraction because of the wings which sprouted from its shoulders. This also seems a case of matted fur.
- In June 1949, a 20 lb cat with a 23 inch wingspan was shot dead in northern Sweden. Professor Rendahl of the State Museum of Natural History said the wings were a deformity of the skin which happened to take the shape of wings.
- In 1950, a tortoiseshell cat called Sandy with "sizeable" wings was exhibited at a carnival in Sutton, Nottinghamshire. Sandy had not previously grown wings so this seems a case of matted fur.
- In either 1950 or 1959, Madrid papers reported Juan Priego's grey Angora cat, "Angolina," had grown a pair of large fluffy wings.
- In May 1959, a winged Persian cat was caught near Pinesville, West Virginia. The finder, Douglas Shelton, named it Thomas, but after the cat made headlines Mrs Charles Hicks claimed it was her lost cat, Mitzi. When the cat was produced in court, her wings had fallen off and turned out to be extensive mats of fur.

- In 1966, a winged cat from Alfred, Ontario, Canada was killed and was examined by scientists at Kemptville Agricultural School. The wings were nothing more than matted fur. The cat was also suffering from [rabies](#).
- In the October/November 1967 issue of the Cats Protection League's periodical "The Cat", Cecily Waddon reported matted Persian whose felted fur resembled wings and flapped when the cat moved.
- In 1970, J A Sandford of Wallingford, Connecticut saw a winged cat in a neighbour's garden. The orange-and-white longhaired cat was *positively waddling due to large wing-like growths hanging from its midsection*. The owner claimed it was how the cat shed its fur in summer. The fur was matted into rectangular pads about 5 inches long by 4 inches wide. Some claim it to be a case of Feline Cutaneous Asthenia, but it is a textbook case of matted fur.
- In 1975 the Manchester Evening News published a photograph of a winged cat which had lived in Banister Walton & Co builder's yard at Trafford Park, Manchester, England during the 1960s. It had a pair of 11 inch long fluffy wings projecting from its back. The skin of its tail was flattened into a broad flap. Workmen reported that the cat could raise its wings above its body, suggesting the deformity contained muscle as well as skin. This sometimes happens with Cutaneous Asthenia.
- In 1986 a winged cat was reported in Anglesey, Britain, and later shed its wings suggesting they were mats of fur. In April 1995, Martin Millner spotted a fluffy winged tabby in Backbarrow, Cumbria, England. In 1998, a black winged cat was to be found in Northwood, Middlesex. Its wings were 2-3 inches back from the shoulder blades, 8 inches long, 4 inches wide, 1 inch thick and flapped as the cat ran.
- In 2004, at Bukreyevk (near Kursk), Central Russia, a winged ginger stray tomcat named Vaska was drowned by superstitious villagers according to the local Komsomolskaya Pravda newspaper.

## Feline Cutaneous Asthenia

Cutaneous asthenia ("weak skin") is a skin deformity characterised by abnormal elasticity and stretching of the skin. Pendulous wing-like folds of skin form on the cat's back, shoulders and haunches. Even stroking the cat can cause the skin to stretch and tear. The flaps may include muscle fibers allowing some movement, but the cat cannot flap them in a bird-like manner though the wings may bounce up and down when the cat moves.

Cutaneous asthenia is caused by a collagen defect. Collagen is the protein that binds the cells of the dermis together. It is also called **dermatoproxy** and **hereditary skin fragility** or **cutis elasticica** ("elastic skin") and is found in humans (Ehlers-Danlos Syndrome or EDS), dogs, mink, horses, cattle and sheep. In cattle and sheep it is called **dermatosparaxis** ("torn skin"). In horses a similar condition is called **collagen dysplasia**. The skin is also abnormally fragile. The skin flaps peel or slough off very easily, often without causing bleeding. This explains why cats with the condition suddenly "molt" their wings.

A recessive autosomal (non-sex linked) form of feline cutaneous asthenia has been identified in Siamese cats and related breeds. In the homozygous state it is apparently lethal.

## Veterinary Reports

- In 1970, Peter Pitchie, a vet in Kent, England, attempted to spay a 5 month old female tabby cat. When he injected the anesthetic, the cat's skin immediately split. When he shaved the cat's flank for the spaying incision the skin split again. Further splits occurred when he tried to sew up the first two. He eventually sutured all the splits using a round-bodied needle and despite their dramatic formation they healed without complications.
- In 1974, a 4 year-old tom cat with "fragile skin", was taken to Cornell University's New York State Veterinary College Small Animal Clinic for investigation. Dr DV Scott noted that its skin was exceptionally thin and velvety in texture. It was hyperextensible (extremely stretchy) and had a criss-cross network of fine white scars from previously healed tears. When fur was clipped from a foreleg to gain a blood sample, the skin peeled away. Peeling was found to occur whenever the slightest pressure was applied anywhere to the cat's skin. Investigation showed that the collagen fibres in the cat's skin were abnormal.
- In 1975, an adult female cat examined by W.F. Butler of Bristol University's Anatomy Department was found to have very fragile skin on its body. It had abnormally low levels of collagen in the skin of its lower back.
- In 1977, Drs Donald F. Patterson and Ronald R. Minor of the University of Pennsylvania's School of Veterinary Medicine studied a young short-haired gray tomcat which had severely lacerated its skin through normal scratching. Its skin was found to be delicate and easily torn. It was also abnormally elastic and the skin of the back could be extended to a distance above the backbone equal to about 22% of the cat's entire body length. They wrote a paper on the subject and included photos of the cat with its skin gently stretched into "wings". Because of the difficulties in caring for a cat with an incurable skin fragility problem, the donated it to the veterinary school. It was mated to 4 long-haired female cats and several of the offspring inherited cutaneous asthenia.

An undated veterinary report describes a 6 month old non-pedigree tomcat which presented with two skin wounds on the right hand side of its body. The skin in the affected areas, and the skin on its back, was hyperextensible, smooth and easily torn by just a small amount of pressure. Microscopic examination revealed abnormally low levels of connective tissue.

Cats with the condition cannot be grasped by the scruff as this may tear away. The syndrome is also linked to slipping joints. Dietary supplements may be needed to promote skin healing and regrowth. Antibiotics may be needed to combat infection when skin has split or torn.

## Winged Cats in Popular Culture

A Kircher engraving from 1667 depicted a demonic creature with a cat's head, bat's wings and human torso. Cats and bats were both associated with the devil (in Christianity) and demons were sometimes depicted as bat-winged cats.

In the 1980s and 1990s, the Forgotten Realms role-play game and related fantasy novels depicted shy winged cat-owl hybrids as the pets of wizards.

In the videogame Final Fantasy V, many random encounter enemies resemble winged cats.

Winged cat angel figurines are popular among cat owners in the USA.

Winged kitten figurines called "flittens" are produced by Greenwich Workshop in the USA. These show cute kittens with butterflies' wings. Bradford Editions produce "Almost Purr-fect Angels" winged cat figurines.

"Catwings," a series of children's picture books by Ursula K. Le Guin, features several winged cats.

For more information on Winged Cats, visit this Messy Beast information page:  
<http://web.archive.org/web/20050223162447/www.messybeast.com/winged-cats.htm>

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## 2 Cat Behavior

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## Cat Body Language

[Cats](#), like many other animals, communicate a variety of messages using body language. Examples include arching their backs as a signal of fear or aggression and slowly blinking to signal relaxation. As is the case with dogs, the tail is often used as a signalling mechanism. A twitch can indicate minor irritation, and a tail held high suggests confidence. A cat who chooses to lie with its stomach and chest exposed conveys happiness, trust and comfort. A cat with tail held high and twitching shows excitement, but this is often mistaken for anger. Flattened ears mean that the cat feels threatened, and may attack. Mouth open and no teeth exposed suggests a feeling of playfulness.

Many people fail to understand the silent language of cats. In particular, 'dog people' who are accustomed to the fawning outwards signs of dog 'language' seem slow in detecting what a cat is telling them in its body language, which creates the false impression among "dog people" that cats are cold-hearted, unemotional, or dumb. To understand cats, one must observe a feline closely and learn what its body signals tell you. The flattened ears, teeth showing, baring belly for submission are easily 'read' by humans. Some characteristic signals, however, are often misunderstood. For instance, a cat rubbing its body along an arm or leg of its human is not only a way in which to attract attention and, perhaps, a morsel of food. It is also a way of 'marking' its human as its very own. Using scent glands located around its mouth and elsewhere, it subtly 'marks' its human as part of its cat territory. Most cats prefer gentle rubs behind the ears. To inform their humans they need petting or attention, a cat may push its entire body weight up against the human as the cat snuggles next to his/her favorite person.

### Some subtle Anthropomorphisms

- Disgust - Lifting and subsequent shaking of a paw or paws is sign of disgust. The more paws the more disgusting. This can sometimes be a four paw affair with each paw being lifted and shaken before the other.
- Agitation - The swishing or sweeping of the tail in one full 180 degree swoop mid-air or against the human. And if the message isn't getting through, the cat may simply leave the room.

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## Catfight

A **catfight** is, by literal definition, a physical clash between two [cats](#).

More often, the term 'catfight' is used as a slang term for an altercation, usually physical, between two women. It is stereotyped as involving slapping, scratching, hair-pulling, and sometimes biting as opposed to punching or kicking. It can also be used to describe two human females insulting one another verbally, or being unpleasant to one another. Many catfights in cartoons, movies, and beer commercials end with at least one of the participants missing several articles of clothing. Catfighting is also a popular subject amongst pornographic films depicting multiple women in sexually suggestive and combative situations. In the 1970s, prurient interest in catfighting lead to the popularity of several women in prison films.

Catfighting has also recently been experiencing a boom in the form of payable entertainment. There are many different forms that now exist. Catfighting media displays forms from the more recent extreme catfight aspect, in which punching and kicking are included with the stereotypical array of woman fight tactics, such as scratching and the pulling of hair. Such stereotypical displays of anger are frequently demonstrated on the daytime television talk show *The Jerry Springer Show*. In more extreme variations such as in pornography, facesitting is involved.

# In Popular Culture

The subject of a catfight was also once the focus of an episode of the popular TV sitcom Seinfeld, episode number 156, *The Summer of George*:

Elaine: Ok, why? Why do guys do this? What is so appealing to men about a cat fight?

Kramer: Yeye cat fight!

Jerry: Because men think if women are grabbing and clawing at each other there's a chance they might somehow kiss.

(Source: [Seinfeldscripts.com](http://Seinfeldscripts.com).)

One of the highest profile catfights on television has been Miller Lite's racy Catfight commercials in 2002, which were derided by many as sexist. The careers of both actresses in the commercial, Kitana Baker and Tanya Ballinger, enjoyed a major boost. It is notable for the fighters losing some articles of clothing after a brawl.

Another famous Catfight was the brawl in the toilet between Queen Latifah and Missi Pyle in the movie Bringing down the house which ends with Queen Latifah dunking Missi Pyle's head in the toilet bowl.

Another minor celebrity who achieved 15 minutes of fame as a result of a catfights is Danielle House, a former Miss Canada International (1996) who was convicted for assaulting her ex-boyfriend's girlfriend in a bar-room. After serving her sentence, House was named Playboy's Playmate of the Month for December, 1997. The Song "Girlfight" by Brooke Valentine is about a nasty catfight between 2 girls.

The top story for late night talk shows on November 6, 2005 was two cheerleaders for the Carolina Panthers, Renee Thomas and Angela Keathley, charged with battery and disorderly conduct, respectively. Patrons in the bar's women's bathroom voiced their annoyance at how long the two were occupying a stall. A fracas ensued. The combination of

catfighting, cheerleaders, and allegations of lesbian activity made for a perfect storm of titillating media. Catfight-Facesitting has recently become very popular in pornography.

Perhaps the most famous form of catfighting are those depicted in WWE.

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## Evening Crazies

The **Evening Crazies** is behavior during which domestic felines ([cats](#)), as well as [kittens](#), enter a period of increased hyperactivity and playfulness. Since cats are nocturnal predators, it is normal for them to be active late at night. Although the "evening crazies" are most commonly witnessed during the evening hours (hence the name), cats can actually experience the evening crazies at any time, although the vast majority of cats sleep during the day.

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## Socialization

**Socialization** in the study of animal and human behavior is the process by which human beings or animals learn to adopt the behavior patterns of the community in which they live. For both humans and animals, this is typically thought to occur during the early stages of life, during which individuals develop the skills and knowledge necessary to function within their culture and environment. However, this also includes adult individuals moving into an environment significantly different from one(s) in which they have previously lived and must thus learn a new set of behaviors.

### Cats

For example, the [cat](#) returns readily to a feral state if it has not been socialized properly in its young life. A feral cat usually fears humans. People often unknowingly own one and think it is merely "unfriendly."

These cats, if left to proliferate, often become "pests" in populated neighborhoods by decimating the bird population and digging up people's yards. Feral cats are sometimes helpful when used in agriculture to keep rodent and snake populations down. Such cats are often referred to as "barn" cats.

Socializing cats older than six months can be very difficult. It is often said that they cannot be socialized. This is not true, but the process takes two to four years of diligent food bribes and handling, and mostly on the cat's terms. Eventually the cat may be persuaded to be comfortable with humans and the indoor environment.

[Kittens](#) learn to be feral either from their mothers or through bad experiences. They are more easily socialized when under six months of age. Socializing is done by keeping them

confined in a small room (ie. bathroom) and handling them for 3 or more hours each day. There are three primary methods for socialization, used individually or in combination. The first method is to simply hold and pet the cat, so it learns that such activities are not uncomfortable. The second is to use food bribes. The final method is to distract the cat with toys while handling them. The cat may then be gradually introduced to larger spaces. It is not recommended to let the cat back outside because that may cause it to revert to its feral state. The process of socialization often takes three weeks to three months for a kitten.

Animal shelters either foster feral kittens to be socialized or kill them outright. The feral adults are usually killed or euthanized, due to the large time commitment, but some shelters and vets will spay or neuter and vaccinate a feral cat and then return it to the wild.

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## 3 Cat Attractants

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### Dihydroactinidiolide

**Dihydroactinidiolide** is a volatile terpene with chemical formula C<sub>11</sub>H<sub>16</sub>O<sub>2</sub> and CAS number 15356-74-8. It has a sweet, tea-like odor and is used as a fragrance. Dihydroactinidiolide occurs naturally in black tea, fenugreek, fire ants, mangos, silver vine, and tobacco.

As with [nepetalactone](#), found in catnip, dihydroactinidiolide is a [cat attractant](#). Cultivators of silver vine (which contains another such chemical, actinidine) sometimes find their plants destroyed by enthusiastic [cats](#).

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### Nepeta

*Nepeta curviflora*

Kingdom:	Plantae
Division:	Magnoliophyta
Class:	Magnoliopsida
Order:	Lamiales
Family:	Lamiaceae

Genus: *Nepeta* Species: See text.

*Nepeta* is a genus of about 250 species of flowering plants in the family Lamiaceae. The members of this family are known as **catnips** or **catmints**.

The genus is native to Europe, Asia and Africa, with the highest species diversity in the Mediterranean region east to China. Most of the species are herbaceous perennial plants, but some are annuals. They have sturdy stems with opposite heart-shaped, green to greyish-green leaves. The flowers are white, blue, pink or lilac and occur in several clusters toward the tip of the stems.

*Nepeta cataria* (Catnip, True Catnip, Catmint or Field Balm) is a 50–100 cm tall herb resembling mint in appearance, with greyish-green leaves; the flowers are white, finely spotted with purple. It has been introduced to many countries, and is now a widespread weed in some areas, including the United States. A lemon-scented cultivar, *N. cataria* 'Citriodora' looks exactly like true catnip, but has the scent of, and can be used like Lemon balm.

*Nepeta grandiflora* (Giant Catmint or Caucasus Catmint) is lusher than true catnip, and has dark green leaves and dark blue, almost purple flowers.

*Nepeta × faassenii* (*N. racemosa* × *N. nepetella*; Faassen's Nepeta or Faassen's Catnip) is mostly grown as an ornamental plant. This hybrid is far smaller than either of above, and is almost a ground cover. It has greyish-green leaves and light purple flowers.

Some *Dracocephalum*, *Glechoma* and *Calamintha* species were formerly classified in *Nepeta*.

## Effects on cats

Catnip and catmints are mainly known for, and named after, the effects they have on cats, particularly [domestic cats](#). Approximately two thirds of cats are susceptible to the effects of catnip, as the phenomenon is hereditary.

Catnip contains [nepetalactone](#), a terpene, that is thought to mimic feline sex pheromones. Cats detect it through their vomeronasal organs. When cats sense the bruised leaves or stems of catnip, they will rub in it, roll over it, paw at it, chew it, lick it, leap about, then purr loudly, growl, and meow. This reaction only lasts for several minutes before the cat loses interest. It takes up to two hours for the cat to "reset" and then it can come back to the catnip and have the same response as before. Young kittens and older cats are less likely to have a reaction to catnip but big cats, such as tigers, seem to be extremely sensitive to it.

Cat owners do not need to worry about allowing their cats access to catnip because there are, for the most part, no negative side effects to it. However, some cats become overly excited when exposed to catnip, and so aging cats with heart troubles should not be given catnip.

Other plants that also have this effect on cats include Valerian and plants that contain actinidine or dihydroactinidiolide (*Smith, 2005*).

At least three species attract cats, *Nepeta cataria*, *N. grandiflora* and *N. × faassenii*, but most other species have not been tested. Of these, both true catnip and Faassen's catnip have a sharp, biting taste, while the taste of giant catmint is bland.

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## Nepetalactone

**Nepetalactone** is a lactone chemical compound first isolated in the plant catnip, *Nepeta cataria* (apparently named after the Italian town of Nepete). It was first isolated in 1941.

Nepetalactone's structure is two rings – a cyclopentane and a cyclic ester, making a terpenoid. Empirically it is C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>. The structure and the effect of the compound is similar to valepotriates. There are a number of isomers of nepetalactone.

As 4a±,7±,7a±-nepetalactone it is the active chemical in *Nepeta cataria* that causes its characteristic effect on [cats](#). Around 75% of cats are affected: susceptibility is gene-linked. The chemical interacts as a vapour at the vomeronasal organ.

In humans the compound has a number of very mild effects; it is a weak sedative, antispasmodic, febrifuge and antibacterial. In high doses it also has an emetic effect.

It also has an effect on some insects, repelling the cockroach and mosquito, poisonous to some common flies, but a sex pheromone to aphids.

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## 4 Cat Breeds

A **cat breed** is an infrasubspecific rank for the classification of [domestic cats](#). A cat is considered to be of a certain cat [breed](#) if it is true breeding for the traits that define that breed. Only three percent of owned cats belong to a **cat breed**, and an even smaller percentage of those are suitable as [show cats](#). A breeding certificate proves that a cat belongs to a **cat breed** by showing the cat's [pedigree](#) back to at least four generations. The whole concept of cat breeds is a relatively new one. Two hundred years ago there was no such thing. Today there are almost a hundred **cat breeds**. Varieties of domestic cat can also be identified by characteristics other than breed.

See [selective breeding](#) for more in-depth detail on purebred animals.

## See also

- [List of cat breeds](#)
- [Cat types](#)

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## List of Cat Breeds

The following list of [cat breeds](#) uses a wide interpretation of the word "breed". Breeds listed here may be traditional breeds with long histories as registered breeds, rare breeds with their own registries, or new breeds that may still be under development. Please see individual articles for more information. See also [breed](#).

Cats can also be grouped by [type](#) according to appearance or function.

## Longhair and semi-longhair

- [American Bobtail](#)
- [American Keuda](#)
- [Angora](#) (British Angora) renamed *Oriental Longhair* in 2002

- [Asian Semi-longhair](#) (or Tiffanie)
- [Balinese](#)
- [Birman](#)
- [British Longhair](#)
- [Chantilly/Tiffany cat](#)
- Cherubim (or Honeybear)
- Colourpoint Longhair
- [Exotic cat](#)
- [Himalayan](#)
- [Javanese](#)
- [Maine Coon](#)
- [Nebelung](#)
- [Neva Masquerade](#)
- [Norwegian Forest Cat](#)
- [Oriental Longhair](#)
- [Persian](#)
- [Ragdoll](#) (and Ragamuffin)
- [Siberian](#)
- Snow Cat
- [Somali](#)
- [Sterling](#)
- [Turkish Van](#)
- [Turkish Angora](#)
- [York Chocolate cat](#)

## Shorthair

- [Abyssinian](#)
- [American Shorthair](#)
- Antipodean (New Zealand Shorthair)
- Asian Shorthair
- [Australian Mist](#) (or Spotted Mist)
- [Bahraini Dilmun Cat](#)
- [Bombay](#)
- [British Shorthair](#)
- Brazilian Shorthair
- [Burmese](#)
- [Burmilla](#)
- [Chartreux](#)
- [Colorpoint Shorthair](#)
- [Cornish Rex](#)
- [Egyptian Mau](#)
- [European Shorthair](#)
- [Havana Brown](#)

- Jungala
- Khao Manee
- [Korat](#)
- Kucing Malaysia
- Malayan
- [Oriental Shorthair](#)
- [Russian Blue](#)
- [Savannah](#)
- Seychellois
- [Siamese](#) (and Traditional Siamese or Applehead Siamese)
- Templecat
- [Tonkinese](#)

## Breeds with unusual physical features

- [American Bobtail](#)
- [American Curl](#)
- American Ringtail
- American Wirehair
- [Bengal cat](#)
- [California Spangled Cat](#)
- [Chausie](#)
- [Cornish Rex](#)
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- [Don Sphynx](#)
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- German Rex
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- [LaPerm](#)
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- Mojave Spotted
- [Munchkin](#)
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- [Peterbald](#)
- [Pixie-bob](#)
- [Savannah](#)
- [Selkirk Rex](#)
- Serengeti

- [Singapura](#)
- [Sphynx](#)
- [Scottish Fold](#)
- [Snowshoe](#)
- [Sokoke](#)
- [Toyger](#)
- [Ussuri](#)

## External References

A worldwide list of all known recognised and unrecognised cat breeds, strains and varieties, including extinct and experimental breeds is stored at [Cat Breeds](#) with recognition/discovery dates at [Breeds Timeline](#).

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# Abyssinian

## Abyssinian Cat

Shorthaired Abyssinian

Common nickname: Abby

Country of origin: Egypt

Breed standards (external links): [CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#), [FIFE](#)

The **Abyssinian** is a natural [breed](#) of domesticated [cat](#) believed to originate from one Egyptian female kitten called Zula that was taken from a port in Alexandria, Egypt, by a British soldier and brought to England where the breed was developed by Zula being bred with an English [tabby](#), and the most 'Abyssinian' looking kitten of her litter being bred with its mother to splice the Abby gene. It is believed all Abyssinians in Europe, the Americas, and Australia are descended from Zula, but there has been at least one and possibly as many as three Abyssinians introduced from Libya (or less likely Egypt) into the existing Abyssinian gene pool in the USA. The Abyssinian has become one of the most popular shorthair breed of cats in the USA. There are said to be still wild Abyssinians in some parts of North Africa.

The Abyssinian has a distinctly ticked, tawny coat. The tail and paws may show tabby markings, but the body must not. It has large almond-shaped green or gold eyes with a fine dark line around them, and large ears. The coat is generally a warm golden colour, but

"Abbys" can also be blue, fawn, cinnamon and red. There is also a Silver Abyssinian variant whose coat shows shades of white, cream and grey.

Abyssinians are very active, friendly, curious and playful, but are usually not "lap cats"; they are too preoccupied exploring and playing; they are "busy" cats, and can get bored and depressed without daily activity and attention. Many Abyssinians enjoy heights, and will explore their surroundings in three dimensions, from the floor to their owner's shoulders to the top of the highest furniture. They are highly intelligent, but probably the most independent of any domestic breed. There is a long-haired version of the Abyssinian, called the [Somali](#).

## Famous Abyssinians

- Jake from The Cat from Outer Space  
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# American Bobtail

A brown tabby American bobtail.

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [TICA](#)

The **American Bobtail** is a relatively new and uncommon [breed](#) of [cat](#) most notable for its stubby "bobbed" tail about half the length of a normal cat's tail. This is the result of a genetic mutation affecting the tail development, similar to that of a [Manx](#). The cat is not related to the [Japanese Bobtail](#) despite the similar name and physical type — the breeding programs are entirely unrelated and the gene causing the mutation is entirely different.

American bobtails are a very sturdy breed, with both short or longhaired coats. Their coat is shaggy rather than dense or fluffy. They can have any colour of eyes and fur, with a strong emphasis on the "wild" tabby appearance in show animals.

According to legend, bobtails are the result of a crossbreeding between a domestic [tabby cat](#) and a bobcat. Although this IS genetically possible, the unusual tail is actually the result of a random genetic mutation. The breed was recognised by the International Cat Association in 1989.

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# American Curl

## American Curl

### Country of origin

United States

### Breed standards (external links)

[CFA](#), [ACFA-shorthair](#), [ACFA-longhair](#), [TICA](#), [CCA](#), FIFe

The **American Curl** is a [breed](#) of [cat](#) with unusual ears. The ears curl back from the face in a smooth arc toward the center of the back of the skull; they are otherwise perfectly normal cats. The breed is the result of a spontaneous mutation which occurred in a cat in Lakewood, California in 1981. The first cat, a black female domestic cat, was found and taken in by the Ruga family who named her Shulamith. All American Curls descend from her, the foundation female. In 1983, the first American Curl was exhibited at a [cat show](#), and in 1987, the longhair American Curl was given championship status by The International Cat Association (TICA). In 1993, the American Curl set a precedent in the Cat Fanciers' Association (CFA) by being the first breed to be admitted to the Championship Class as one breed with two coat lengths. The American Curl is a medium size cat (7-11 lbs) with no health handicaps associated with the curled ears. They are strong, healthy cats remarkably free of genetic defects that affect many purebred cats, and will not reach maturity until 2-3 years of age. The American Curl may have either curled ears or straight ears. If the cat's ears are curled, it will not be apparent until two or three days after the birth, and will take their final form after four months. The curled ears should be hard and stiff to the touch. The longhairs have a plush, silky coat, and the shorthairs have a thick, non-woolly coat, and is also silky. The American Curl may have three degrees of curl - first degree, second degree, or third degree. The third degree is the preferred one. Luxurious tufts of fur sprout from the bottom of the ears. The straight ear American Curl has all of the loving personality of the curled ear American Curl but may not be shown. The American Curl comes in two coat lengths - either long haired or short haired. The American Curl comes in all colors.

The American Curl, while still an uncommon breed, is found across the world from the United States to Spain, France, Japan, Russia, and many other countries.

The character "Ray" from the comic strip *Achewood* is an American Curl.

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# American Shorthair

### Country of origin

Emigrated from Europe to America

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#)

The **American Shorthair** is the most popular and most prevalent [breed](#) of American [cat](#).

American Shorthairs are medium to large sized cats, with powerful legs and strong paws. Their muzzle is squarish. Their coat is short, with the fur being thick, dense, and stiff to protect them from cold, moisture, and superficial skin injuries. Their coat thickens up in the winter and sheds in the spring but still remains lighter and slimmer than its close cousin, the [British Shorthair](#). American Shorthairs are very affectionate, long-living, disinclined to behavioral problems, and gets along well with other family members including dogs. The American Shorthair is also an excellent hunter, but its sunny and gentle disposition make it ideal for families with small children.

An American shorthair is not considered fully grown until 3-4 years old, when it attains the true strong athletic proportion of its breed. Males are usually larger than females and have definite jowls. It is perfectly happy as an indoor or outdoor cat.

American Shorthairs come in over a 100 different varieties of colors (blacks, whites, silvers, creams, reds, browns, greys, and tabby mixes), but their eyes, pad color, and nose will always match their coloring. Their tail tapers to a blunt tip and has no kinks.

Grooming for an American Shorthair is extremely easy, all they require is regular brushing and a wipe over with a damp chamois will make the coat shine.

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# American Wirehair

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#), [FIFe](#)

The **American Wirehair** is a [breed](#) of domestic [cat](#) that originated in upstate New York. The first wirehair cat appeared as a random coat mutation among a litter of six born to two barn cats. This single red and white male had odd wiry fur. The owner of the cats called a local breeder of Rex cats, Mrs. William O'Shea, to take a look at the kitten. She bought the kitten for \$50, along with one of his normal coated female littermates, to start a breeding program. The wirehaired male was named Council Rock Farm Adam of Hi-Fi, and the female Tip-Toe of Hi-Fi.

Breedings between the two produced wirehaired kittens, many of which were sold off to other interested breeders. As the population grew, cats were exported to Canada and Germany. the breed did well, and in 1978 they were accepted for Championship competition. As of 2003, though the breed is well known, they are ranked as the most rare of the 41 CFA breeds, with only 22 registered, down from 39 in 2002. The unique wirehair coat is genetically dominant over a normal coat, unlike the gene that creates rex fur. The fur is springy, dense and coarse, and even their whiskers are often curled. Many find it pleasant to the touch. It is unusual in that this coat has not appeared among other cats (most mutations occur in various places), and all wirehairs can trace their ancestry back to Adam. Apart from the wiry coat, they are strong, muscular cats, built similarly to American Shorthairs. They come in a variety of colors. Their personality is described as intelligent, and affectionate. They are said to be adaptable cats resistant to disease, and have been described as both cool and reserved, and wild, playful and inquisitive cats.

## References

Cat World, a Feline Encyclopaedia, by Desmond Morris, 1996  
<http://www.cfainc.org/breeds/profiles/american-wh.html>  
<http://www.avma.org/careforanimals/animatedjourneys/petselection/catstats.asp>  
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# Angora

A white Angora

## Alternative names

British Angora

## Country of origin

United Kingdom

## Breed standards (external links)

Not currently recognised by any major clubs

## Notes

This breed was renamed Oriental Longhair in 2002

The **Angora** is the old name for the Oriental Longhair (European Javanese, Dutch Mandarin) British [breed](#) of [cat](#). This Angora name was dropped by British Cat Registries in 2002 due to confusion with the Turkish Angora. They have the body type and nature of an [Oriental cat](#) - lean, sleek, intelligent and inquisitive - and a silky medium-length coat which is much longer and thicker than that of a traditional oriental cat or [Siamese](#).

Oriental Longhairs can be any of the standard shorthair colours. The range of possible coat colours includes everything from self-coloured (black, blue, chocolate, lilac, cinnamon, caramel, fawn, red, cream and apricot), torty, smoke (silver undercoat), shaded or tipped, tabby or white. All Oriental Longhairs have green eyes, except for the whites, which may have green or blue eyes, or be odd-eyed (two different colored eyes).

If an Oriental Longhair is bred to a shorthaired oriental or a Siamese, the kittens will all be short-haired. However, if these kittens are reintroduced into a breeding program as adults, approximately half of their kittens will have long coats.

The Oriental Longhair is analogous to the CFA [Balinese](#) and [Javanese](#), and the TICA [Oriental Longhair](#) breeds in the United States.

The British "Angora" should not be confused with the Turkish Angora, one of the most ancient breeds of longhaired cats. Originating from the mountainous regions of Turkey, the Turkish Angora is recognized by many official registries including CFA and TICA.

The Turkish Angora has a svelte, but not Oriental style, foreign body type. It does not come in pointed colors. It is a refined and elegant cat, with large ears set high and tight on the head, and offering smaller boning than the more well-known Persian cat. The Turkish Angora is a natural breed of cat, and is prohibited from outcrossing to any other breed, unlike the British "Angora" (which has since dropped the name due to pending GCCF recognition of the Turkish Angora).

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## Australian Mist

### Country of origin

Australia

### Breed standards (external links)

[\(WNCA - includes an explanatory document\)](#)

The **Australian Mist** (formerly known as the **Spotted Mist**) is a [breed](#) of [cat](#). This breed was developed in Australia in the late 1970s, hence its name. The breed was developed by crossing the [Burmese](#), [Abyssinian](#), and [Domestic shorthair cats](#) to create a shorthaired cat with a spotted coat. The name was changed from 'Spotted Mist' to 'Australian Mist' in 1998 when cats with marbled coats, rather than spots, were accepted as part of the breed.

Australian Mists are medium-sized shorthaired cats, with a round head and large, expressive eyes. The coat patterns have three levels of definition; (1) ground colour, paler than pattern; (2) pattern, delicate though distinct from ground colour; (3) appears to wear a misted veil, caused by random ticking in the solid colour areas. The legs and tail are ringed or barred, and the face and neck also have delicate lines of color. Australian Mist cats come in seven colors: brown, blue, chocolate, lilac, caramel, gold and peach.

As a relatively new breed, all Australian Mist catteries are in Australia, however desexed cats have been introduced to America and several other countries. The breed is now accepted for Championship status by the World Cat Federation. The Australian Mist will celebrate 20 years as an accepted Championship breed in Australia during 2006.

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## Bahraini Dilmun Cat

**Bahrain** is a small island just off the east coast of Saudi Arabia in the Arabian Gulf. The local [cats](#) of Bahrain have a very distinctive 'look' about them - they are slender, elegant, street smart spotted tabbies. These spotted tabbies have beautiful short hair coats that are extremely sleek, I compare their coats to the feel of a beautiful silk Persian carpet. The spotted Bahraini cats occur in all different cloours from dark brown, bronze, cinnamon, lillac, ginger, silver, etc. and the cats occur in solid colours also. Recently the typical Bahraini cat has been called the 'Dilmun Cat' after the name of ancient Bahrain. These cats have managed to adapt to the harsh climatic conditions of Bahrain. Due to the extreme summer temperatures in Bahrain the cats have large ears and short fur. In the summer they sleep all day and come out in the evening, and in the cooler months they are more active at day time.

Generally these lovely cats are not much appreciated in their home land. Most of the cats in Bahrain live as street wise cats in areas where there is a sufficient supply of food and enough shelter (fortunately for the cats people throw out a lot of food in Bahrain!). Appart from their good looks, the cats of Bahrain are particualary endearing creatures because of their great personalities. Even people that normally don't like cats end up with a soft spot for the cats of Bahrain.

The cats of Bahrain are very adaptable creatures, and that has been the key to their survival. Unfortunately, nowadays there is so much development going on in Bahrain with shopping malls and high rise offices popping up, that the traditional home areas of the cats are being demolished. The next test of their survival is to see how they will survive in the modern towns and cities of Bahrain.

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## Balinese

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [ACE](#), FIFe

The **Balinese** is a [breed](#) of [oriental cat](#) with long hair and Siamese-style markings, or [points](#). They resemble a [Siamese](#) with a medium-length silky coat and a plumed tail, but not nearly as fluffy as a [Himalayan](#), and they require much less grooming. Balinese are extremely intelligent cats, although less talkative than their Siamese ancestors.

The Balinese was originally registered as a 'longhaired Siamese', and examples were known from the early 1920s. The occasional long-haired kittens in a Siamese litter were seen as an oddity, and sold as household pets rather than as [show cats](#). This changed in the mid-1950s, when two breeders, Mrs. Marion Dorsey of Rai-Mar Cattery in California and Mrs. Helen Smith of MerryMews Cattery in New York, decided that they would commence a breeding program for the longhaired cats. Helen Smith named the cats 'Balinese' because she felt they showed the grace and beauty of Balinese dancers, and because 'longhaired Siamese' seemed a rather clunky name for such graceful felines. The breed became quite popular after this, and a number of breeders began working on 'perfecting' the Balinese appearance. This led eventually to the development of two entirely separate 'strands' of Balinese cat - some owners prefer a traditional or 'apple-headed' Balinese, while breeders and judges tend to prefer a more contemporary appearance.

Like the Siamese, there are now two different varieties of Balinese being bred and shown - 'traditional' Balinese and 'contemporary' Balinese. The traditional Balinese cat has a coat approximately two inches long over its entire body and it is a sturdy and robust cat with a semi-rounded muzzle and ears. The traditional Balinese closely resembles a [Ragdoll](#) cat although they do not share any of the same genes or breeding other than having a partially Siamese ancestry. A 'contemporary' Balinese has a much shorter coat and is virtually identical to a standard show Siamese except for its tail, which is a graceful silky plume.

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## Bengal Cat

## Country of origin

United States

## Breed standards (external links)

[ACFA](#), [TICA](#), [CCA](#), [ACE](#), FIFe, GCCF

The **Bengal cat** is a relatively new breed of domestic housecat (*felis catus*) developed to have a gentle and friendly temperament, while exhibiting facial coloration patterns and body coat patterns (such as spots and rosettes) reminiscent of the wild Asian Leopard cat, *felis bengalensis*. Put another way, a bengal cat desirably has 'wild' coat characteristics and coloration with a gentle domestic cat temperament.

Bengals are medium sized cats - a male may weigh as much as 20 lb (9 kg), and a female commonly weighs 7 to 12 lb (4 to 6 kg.) Male cats are generally larger than females.

Bengal cats are a hybrid developed over many generations through a program of rigorous crossbreeding, hybridizing domestic cats with desired coat and temperament features with Asian Leopard Cats (ALC) and ALC hybrids. The principle of hybrid vigor dictates that hybrid cats are often larger than either parent, but are typically infertile. F1 and F2 males are nearly always infertile, F3 males are normally infertile, but females are often fertile even in early hybrids.

A cat with one wild ancestor is called an F1, short for first filial. An F1 bred with a domestic cat or other bengal filial cat yields an F2, or second filial. Any kittens from an F2 female are termed F3. Any kittens from an F3 female are termed F4. F4 and higher generations are officially known as Stud Book Tradition (SBT) bengals and can be shown and registered. Any SBT bengal is at least four generations from the wild. It is worth noting that the offspring of an F2 and an SBT is an F3, not an SBT. This labelling, although somewhat complex, should be irrelevant to a prospective bengal owner. Lower filial cats (F1-F3) are typically termed foundation cats and are best reserved for breeding purposes.

Any bengal cat offered for sale should be an F4 or higher hybrid. Although some specialty breeders occasionally sell lower filial number (F1-F3) cats, their temperament is not easily predicted and undersocialised low generation cats can be skittish, retiring and not easily housebroken. The ALC is a solitary, small, shy and reclusive cat not known for interacting with humans. The purpose of crossbreeding them with domestic cats was to obtain a wild-appearing cat with a desirable friendly personality and gentle temperament.

The modern SBT bengal gene pool contains genes sourced from many varieties of domestic cats - mainly [Egyptian Maus](#), [American Shorthair](#), [Abyssinian](#), [Ocicat](#), and [domestic shorthaired cats](#). It is commonly accepted that the breed was developed by Jean Mill of California in the 1970's, although bengal breeders exist throughout the world today. Many breeders today are working to develop specific characteristics in the breed, often by backcrossing foundation cats with particularly vivid markings. The wild Asian Leopard Cat has considerable variation in markings throughout the world.

Bengal cats are either spotted or have marbled patterns on their coats. Spots with multiple colors, or ringed spots are particularly desired. The following colors and patterns are recognized: Brown Spotted Tabby, Brown Marbled Tabby, Seal Sepia Spotted Tabby, Seal Sepia Marbled Tabby, Seal Mink Spotted Tabby, Seal Mink Marbled Tabby, Seal Spotted Lynx Point and Seal Marbled Lynx Point only. Silver Spotted, Silver Marbled and Melanistic (black) are additional colors and patterns not yet recognized by all breeding associations that accept the Bengal cat.

Bengal cats can take a great deal of interest in running water and often don't mind getting wet. Most Bengal owners have stories about their cat's affection for running water or even jumping in a sink or tub. Additionally, Bengal cats are very intelligent and curious, and so are particularly interactive with their human housemates, wanting to be in the middle of

whatever the human is engaged in, and often following the human around the house as household chores are performed. Bengals tend to vocalize to communicate with their humans, and are quite capable of jealousy and spitefulness if they feel that another feline is getting more attention. The other side of this coin is that they are also extremely affectionate towards and playful with their humans. Excellent hearing and highly developed instincts make Bengal cats excellent "watch dogs."

In February 1998, an F2 Bengal cat named Cato made the guinness world records by being the most expensive cat purchased. It was bought for \$41,435.00 (USD) by Cindy Jackson of London, England (Jackson herself also a record holder for having had the most cosmetic procedures). The Bengal cat was sold by [breeder](#) Lord C. Esmond Gay of Bedfordshire, England. Note however, that as of 2005, this Bengal cat is no longer the world record holder.

## New Developments

There are currently two new varieties of cats being developed from the Bengal:

- The [Serengeti Cat](#) - developed from crosses with [Oriental](#) or [Siamese](#) with the aim to produce a domestic cat with the wild looks of a Serval.
- The [Toyger Cat](#) - developed from crosses with domestic cats with the aim to produce a striped 'toy tiger'

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## Birman

A sealpoint Birman's face

### Alternative Names

Sacred Birman

### Country of origin

Burma or Thailand

### Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [FIFE](#)

The **Birman** is a [breed](#) of domestic [cat](#). This breed has a pale cream coloured body and coloured points of Seal, Blue, Chocolate, Lilac, Lynx or Red Factor colors on the legs, tail and face. The body type varies from [Persian-type](#) to [Siamese-type](#). Birmans differ from

conventional colour-point cats by their white paws called gloves. The coat is medium-length, not as long and thick as a Persian's, and does not mat.

The Birman is said to have originated in western Burma, and certainly cats with similar markings are recorded in documents from ancient Thailand. One story claims that a pair was given as a gift to an Englishman named Major Gordon Russell and his friend August Pavie by the priests of the Khmer people; another that the cats were acquired by an American named Vanderbilt from a servant who had once been at the temple of Lao-Tsun where the cats were kept as sacred animals. Two cats were shipped to France in approximately 1919. The male died in transit, but the female was pregnant and gave birth to a litter of kittens in France. These formed the basis of a breeding program and the breed was registered with the French Cat Registry in 1925. The Birman breed was almost wiped out during World War II. Only two cats were alive in Europe at the end of the war, and they had to be heavily outcrossed and rebred to rebuild the breed. The restored breed was recognised in Britain in 1965 and by the American Cat Fanciers' Association in 1966.

In reality modern western Birmans are a hybrid of [Siamese](#) and [Persian](#) breeds and may differ considerable from Burma temple cats from which they originally obtained their white gloves.

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## Bombay

Bombay cat

### Country of origin

United States

### Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [ACF](#)

## Origins

The **Bombay** cat was originally created in 1958 when a breeder from Kentucky (USA) deliberately bred an American shorthair with a Burmese for the purpose of creating a domesticated cat that resembled a wild panther. The offspring of this breeding did indeed resemble the black leopard of India. The name came from the Indian city of Bombay (now Mumbai).

## Characteristics

The Bombay is a muscular yet agile cat with a black coat. The heads of Bombay cats are rounded and wide with a short tapered muzzle. The eyes are rounded and set wide and have golden or copper coloured eyes, and their ears are broad, slightly rounded and medium sized and, like the eyes, set wide. The Bombay has a coat that is short, satiny and tight to the body. Bombay cats do not require grooming, although petting the cat will keep their coat shiny and will also remove dead hair. A rubber brush can help when the cat sheds larger amounts of fur (uncommon). If the cat is fed a balanced diet, the coat will shine and the cat's naturally energetic personality will become evident

## Personality

Bombay cats crave affection; while this can be said of most felines, the Bombay will, if pleased by the amount of affection being given, purr loud enough to be heard over 15 feet away indoors! Bombay cats are quiet and watchful, prefer the indoors and can be affected by loud intrusive noises. An uncommon side effect of loud noises in Bombays can result in them losing fur from their stomachs and near their tails. Should this occur, simply keep the cat indoors or away from loud noises for a short period and make sure they have somewhere they can hide. Preferred locations noted from experience are:

1. behind chairs
2. behind cupboards
3. anywhere small that is difficult to gain entry to, including
  - o behind TVs
  - o inside cabinets
  - o underneath small tables

Bombay cats are by nature lap cats; they are almost heat-seeking in their lifestyle and are known to jump up their owner's backs and rest around their neck if they feel they are being ignored. While Bombay cats will tolerate other breeds of cat, they are dominating over them and will not take well to being treated as a subordinate by other cats. Bombay cats seem to get on exceptionally well with dogs due to the hierarchical nature of dogs, which the Bombay will exploit to the full. Both males and females are excellent pets.

These cats are smart, agile and inquisitive. They will often seek out human interaction. Visitors to the home are best advised not to hide things in pockets or packages that the cat might find interesting, as Bombays will investigate packages and will commonly chew through carrier bags and containers to get at meat. This can lead to problems as they will seek out chicken bones, which have been known to cause damage to their throats after getting into a poorly secured bin containing chicken bones. These cats are head-bumpers and nose-rubbers, Some can be very "talkative" and have distinct "voices". These cats love nothing more than to be held and fussed over.

Quiet, sensitive, reserved and intelligent, the Bombay is suited to life in a quiet home, where it is affectionate to the whole family.

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## British Longhair

A semi-longhair version of [British Shorthair](#). Apart from fur, it is identical to the British Shorthair. Also known as Lowlander (US) and Britanica (Europe), but not recognised in the UK.

The rationale for this [breed](#) is that the original longhaired British cat, through interbreeding with imported longhairs, was developed into the [Persian](#) and became increasingly massive and extreme in type and with longer, thicker fur than the early Persians. During the late 19th Century and early 20th Century, the Persian was considered the

longhaired analogue of the British Shorthair (Frances Simpson "The Book of the Cat" depicts and describes the old type of Persian). During the latter part of the 20th Century a shorthaired version of the modern Persian was developed and was called the [Exotic Shorthair](#); this was very different from the British Shorthair. It was therefore proposed that a longhaired cat of the British type be reintroduced into the cat fancy.

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## British Shorthair

A blue British Shorthair ("British Blue")

### Country of origin

United Kingdom

### Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [FIFe](#)

The **British Shorthair** is a domesticated [cat](#) originally bred in the United Kingdom. It is known for the seemingly perpetual smile on its face; Lewis Carroll chose the breed as the model for his Cheshire cat in Alice's Adventures in Wonderland. Today, this breed is commonly used as a show work. The most famous British Shorthair is perhaps the one who appears as the face of Whiskas cat food.

### Breed Description

British Shorthairs have very dense, soft coats. The eyes are large, round and copper in colour. The head is round with chubby cheeks. The body is rounded and sturdy. The breed has a broad chest, shoulders and hips with short legs, round paws and a plush tail. Males weigh about 14 lb (6 kg).

The British Shorthair may be any colour or pattern, but the 'blue' variant is common enough to have a name of its own: the 'British Blue'.

The lifespan of this breed is 14 to 20 years.

### Origin

The British Shorthair originates from the native working cats of the United Kingdom, which in turn originated in Rome.

## Temperament

The British Shorthair is an easygoing breed. It has a stable character and can easily live in an apartment setting. It is not terribly demanding of attention, although it will make its desire for play known if its owner looks available. It is not normally destructive or hyperactive, although it can be playful.

## Care

The British Shorthair does not require a lot of grooming because the fur does not tangle or mat easily. However, the coat should be brushed weekly to remove loose hair and minimize shedding.

The breed is prone to obesity and some members of the breed have dental problems.

Breed profile sites:

- [Der Katzenklub Österreichs \(in English\)](#)
- [Cats and Kittens](#)
- [The Cat Fancier's Association](#)
- [Catland](#)
- [Petplace](#)
- [British Shorthair owner gift ideas](#)

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## Burmese

Pedigree Chocolate Burmese, "Pipmo Golden Padung"

### Country of origin

Burma

### Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [FIFe](#)

The **Burmese** is a [breed](#) of domesticated [cats](#) descended from a specific cat, Wong Mau, who was found in Burma in 1930 by Dr. Joseph G. Thompson. She was brought to San Francisco, California, where she was bred with Siameses. This breed was first recognized in 1936 by the CFA. Due to a dispute by Siamese breeders, who regarded the Burmese as a poorly coloured Siamese rather than a distinct breed, registration was suspended by the CFA between 1947 and 1953. The breed was recognised by the UK Governing Council of the Cat Fancy in 1952.

The Burmese is a foreign shorthair, categorised by colour into brown (or seal), blue, chocolate, lilac, red, cream and tortoise shell. They have yellow eyes and a very short satiny coat. They are heavier than they look, as they are very muscular. By the standards of pedigree cats they are long-lived, many reaching 16 to 18 years.

Burmese have very strong voices and are very affectionate, forming a strong bond with their owners. Other characteristics include an inclination to climb curtains and sit on doors. They are easily trained to use a scratching post to help conserve the owner's furniture and carpets. Burmese cats are very friendly and curious even towards complete strangers. They are athletic, brave and humourous, and may show remarkable ingenuity, particularly in finding warm places. Burmese cats tend to follow their owners everywhere, even to the point where they may become a bit disturbing.

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## Burmilla

A "blue" male Burmilla

### Country of origin

United Kingdom

### Breed standards (external links)

[CCA](#), [ACF](#)

The **Burmilla** is a breed of domestic cat which originated in the United Kingdom in 1981. It is a cross between the [Chincilla Persian](#) and [Burmese](#) breeds.

Standards were produced in 1984 and the breed gained championship status in the United Kingdom in the 1990s.

The Burmilla can have a variety of colours: black, blue, champagne, chocolate, cream, lilac, platinum and red. They can also be [tortoiseshell](#), with colours including black, blue, brown, chocolate and lilac.

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## Chantilly/Tiffany cat

The **Chantilly/Tiffany** is a striking feline with a semi-foreign body style and a full semi-long coat. The coat is silky, soft and smooth; the lack of undercoat makes grooming easy. Somewhat a late bloomer, the Chantilly/Tiffany is slow to mature and usually does not come into its full glory until about two years. The eye color of the feline intensifies with age.

Originally found only in chocolate, today's Tiffany/Chantilly comes in a range of colors and patterns. The color, like the coat, develops late.

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## California Spangled Cat

### Country of origin

United States

### Breed standards (external links)

[TICA](#)

The **California Spangled Cat** is a [breed](#) of [cat](#). They were bred to resemble spotted wildcats, like the endangered species ocelot and leopard. They are a rare breed, and usually expensive, priced between \$800 to \$2500. They were originally bred in the 1980s.

Inspired by the poaching death of a leopard, the anthropologist Louis Leakey, motivated Paul Casey to breed a domestic cat resembling a small leopard, and that this would emphasize how important it is to preserve the leopard.

California Spangled Cats are a crossbreed of many strains of cat. Despite their wild appearance, they are completely domestic.

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## Chartreux

### Country of origin

France

### Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [ACF](#), [TICA](#), [FIFE](#)

The **Chartreux** is an internationally-recognized [breed](#) of domestic [cat](#). Chartreux cats are from France, reportedly originally bred by Carthusian Catholic monks at their monastery in Grenoble for the purposes of catching mice to preserve food storages from loss and damage. Legend has it the Chartreux's ancestors were feral mountain cats from what is now Syria, brought back to France by returning Crusaders in the 13th century, many of whom entered

the Carthusian monastic order. The first documented mention of the breed was by the French naturalist Buffon in the 17th century. The first Chartreux were brought to the USA in 1971.

Physically, the Chartreux is large and muscular with short but powerful limbs, big paws and very fast reflexes. They are known for their blue (grey) double-thickness fur coats and gold- or copper-colored eyes. Chartreux cats are known for their "smile"; due to the structure of their heads and long, tapered muzzle, they often appear to be smiling.

Chartreux cats tend to be quiet, rarely making noises such as mewing or crying. Some are mute. They are quite observant and intelligent, with some Chartreux learning to operate radio on/off buttons and to open screen door latches. Chartreux cats are also fond of chasing and playing well into their adult years; some can be taught to fetch small objects in the same manner as a dog. Chartreux are good with children and other animals, are nonaggressive and affectionate, good travelers and are generally very healthy.

Historically famous Chartreux owners include the French novelist Colette and French general/president Charles de Gaulle.

The Chartreux breed was advanced to championship status in 1987 by the Cat Fancier's Association (CFA.)

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## Chausie

A Chausie is a hybrid of the domestic [cat](#) *Felis catus* and *Felis chaus*, the Jungle Cat. Generations are identified by F1, F2 etc, with F1 being the offspring of the original cat and jungle cat mating. Males in the F1 to F4 generations are all sterile.

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## Chinchilla Longhair

A cat breed recognized by the South African Cat Council.

Only cats with 5 generations of pure bred Chinchilla are allowed.

Chinchilla Longhairs are smaller than Persian cats: females typically are between 2,5 to 3,5 kilograms, whereas the Persian females range from 3,5 to 5,5 kilos. The Chinchilla Longhair male is from 3,5 to 5,5 kilograms, whilst Persian males range from 5,5 to 8,5 kilograms.

They are the oldest man-made breed: see their history at [\[1\]](#)

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## Cornish Rex

## Common Nicknames

Rex, Corny/Cornies

## Country of origin

England

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [FIFe](#)

A **Cornish Rex** is a [breed](#) of domestic [cat](#), with no hair except for down. Most breeds of cat have three different types of hair in their coats: the outer fur or "guard hairs", which is about 5 cm long in shorthairs and 10cm+ long in longhairs, a middle layer called the "awn hair", and finally the down hair or undercoat, which is very fine and about 1 cm long. Cornish Rexes have only the undercoat.

The coat of a Cornish Rex is extremely fine and soft to the touch. However, their light coat means that they are only suitable for indoor living in moisture free and warm conditions. Consequently, these cats tend to hang around light bulbs, the tops of computer monitors, and other warm places. Cornish Rexes also have a cheesy smell peculiar to the breed - this odour comes from scent glands in the paws.

The Cornish Rex is an adventurous cat. As the Rex is intelligent, it can readily adapt to new situations and engage in explorative behaviour. Humans often consider this behaviour to be deliberately mischievous, but this is a case of anthropomorphism. The Rex seeks out the company of people, and is friendly towards other companion animals. It is a suitable pet for timid children.

## Origin

The Cornish Rex is a genetic mutation that originated from a litter of kittens born in the 1950s on a farm in Cornwall, UK (hence their name). One of the kittens, Kallibunker, a cream colored male, had an extremely unusual, fine, curly coat, and he became the first Cornish Rex.

There is another very similar breed — the [Devon Rex](#). Devon and Cornish Rexes are produced by different genes, and crosses between the two are not allowed in pedigrees, nor will they produce a cat with the short wavy fur if mated together. Another hair-deficient breed is the [Sphynx cat](#).

Though some people believe that the short hair of the Cornish Rex makes them non or hypo-allergenic, this is absolutely not accurate. Most people who have cat allergies are allergic to cat dander, and cat saliva. Since Cornish Rex cats groom as much or even more than cats with all types of hair in their coat, the Cornish Rex cat still produces an allergic reaction in people who are allergic to cats. However, due to the low amount of fur shed from these cats, people with only slight allergies may experience fewer symptoms with a Rex.

The word "Rex" implying short or otherwise unusual fur comes from a rabbit breed. King Albert of the Belgians (1875 – 1934) once entered some short-haired rabbits in a rabbit

show. The rabbits didn't meet the breed standard. Not wanting to offend the king, the show officials accepted them, but wrote "rex," meaning "king" by their names.

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# Cymric

## Alternative names

Long-haired Manx

## Country of origin

Isle of Man

## Breed standards (external links)

[ACFA](#), [TICA](#), [CCA](#), [ACE](#)

## Notes

TICA and ACF consider Cymrics a variety of Manx

The **Cymric** (pronounced KIM-rick) is a [breed](#) of [cat](#). Some cat registries consider the Cymric a long-haired variety of the [manx](#), rather than a separate breed.

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# Devon Rex

A male Devon Rex

## Common nickname

Pixie cat, Alien cat

## Country of origin

England

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#), FIFe

The **Devon Rex** is a relatively new [breed](#) of [cat](#) with a sparse, curly, very soft coat similar to that of the [Cornish Rex](#). The Cornish Rex's coat is unusual because only the down layer of hair is present, the other two layers are absent. More information on the layers is available under [Cornish Rex](#). See also the [Sphynx](#) breed for more information on hair-deficient genetics in cats.

The curl in their fur is caused by a different mutation and gene than that of the Cornish Rex and German Rex, and breeding of a Devon to either of those cats results in cats without rexed (curled) fur.

Devons, which are medium sized cats, are often called "pixie cats" or "alien cats" because of their unique appearance. Their uncommonly large ears are set low on the sides of their wide heads, their eyes are large, and their noses are slightly upturned. Their body type is distinctly lightly-built.

The typical Devon is active, mischievous, playful, and very people-oriented. They're relatively easy to take care of, but they do shed, and many of those with allergies have found that they are not always hypoallergenic.

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## Don Sphynx

### Alternative names

Don Hairless, Russian Hairless, Don Bald Cat, Donskoy or Donsky Sphynx

### Country of origin

Russia

### Breed standards (external links)

[TICA](#)

The **Don Sphynx** is a Russian [breed](#) of hairless [cat](#). It is closely related to the [Peterbald](#).

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## Egyptian Mau

### Country of origin

Egypt

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#), FIFE

**Egyptian Maus** are a medium-sized short-haired [cat breed](#). They are the only naturally spotted breed of domesticated cat. The spots on an Egyptian Mau are not just on the coat; a shaved Mau has spots on its skin. The [Ocicat](#) is very similar in appearance to the Egyptian Mau, but was the product of selective breeding which led to its spots. Another similar looking breed is the [Bengal cat](#), but this breed tends to be considerably larger.

Egyptian Maus are the fastest breed of domestic cat, capable of running at 36 mph. The next fastest breed is the [American Shorthair](#) which has a top speed of 31 mph. For comparison, giraffes also run at 36 mph. Maus are powerful cats for their size, alert and active. Males are usually somewhat larger than females.

The breed conformation is described by *The Cornell Book of Cats* as  
*a balance between the compactness of a [Burmese](#) and the slim elegance of a [Siamese](#). Its medium-length body is muscular, with the hind legs longer than the front, giving the Mau the appearance of standing on tiptoes when upright.*

The longer hind legs are another reason for the breed's startling speed. The Mau also has a loose flap of skin on the lower abdomen, similar to the cheetah, which allows a longer stride while running, again contributing to its great speed. The recently developed [American Keuda](#) breed also sports such a flap. A Mau running at full speed is impressive, with incredible acceleration.

Egyptian Maus are thought by many to be one of the progenitor breeds of the modern domestic cat. They have anatomical, metabolic and behavioral differences from other cat breeds which could be considered as evidence of antiquity or at least uniqueness from other cat breeds. Besides those already mentioned, Maus are more temperature sensitive than most breeds - they are fond of very warm temperatures. They are more sensitive to medicines and anesthesia. Maus also have an unusually long gestational period. The maximum normal period for cats is 69 days, although Siamese may take a day or two longer. For a Mau, 73 days is still considered normal.

Maus often possess very musical voices. They are known to chirp, chortle and emit other distinctly unusual vocalizations when stimulated. Another behavior, quite common in happy Maus, has been described as "wiggle-tail." The cat, male or female, moves its back legs up and down, and appears to be marking territory, also known as spraying, but it is not actually releasing urine. Even veteran Mau owners are known to check after a joyous Mau does this little dance.

Purebred Egyptian Maus are a relatively rare breed. Currently, the number of registered Egyptian Maus worldwide is probably about 3000 (?). Maus come in five colors: silver, smoke and bronze, which are eligible for showing, and black and blue, which are not, but which can be used in breeding. All Maus must have green eyes, but an amber cast is acceptable in kittens and young adults, up to age 1 1/2 years.

## Popular Culture

In the 2004 movie Catwoman, the cat 'Midnight' who brought Patience Phillips back to life as Catwoman was played by three Egyptian Maus, as well as a computer-generated Mau. The movie reveals that the ancient Egyptian Mau breed has the (fictional) ability, through its connection with the Egyptian goddess Bast, to revive worthy dead women as super-powered Catwomen.

## References

Siegal, Mordecai, faculty and staff of Cornell Feline Health Center, Cornell School of Veterinary Medicine (Editors); *The Cornell Book of Cats: A Comprehensive Medical Reference for Every Cat and Kitten*; Villard Books; ISBN 0-39-456787-0; (hardback, 1989)

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# European Shorthair

## Country of origin

Sweden

## Breed standards (external links)

[ACE](#)

**European Shorthair** is a [breed](#) of shorthaired [cat](#) originating in Sweden. It's one of the oldest and very common breeds, but it wasn't standardised until quite late and is currently only recognised by one major cat club.

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# Exotic Cat

Cream tabby male exotic cat

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [TICA](#), [FIFe](#)

Breeders crossed the American Shorthair with the Persian in the United States around 1960. Thus were born shorthaired Persians, called **Exotic Shorthairs** and recognized by the C.F.A in 1966. During the breeding program, crosses were also made with the Russian Blue and the Burmese. Since 1987, the only allowable outcross breed is the Persian. The F.I.Fe. recognized the **Exotic Shorthair** in 1986. They have nearly the same body as the Persian, but a thick, dense short coat. They appeal to people who like the personality of a Persian but do not want the hassle of grooming a long-haired cat. They also known as "Persian for lazy people"

## Known movie apparition

Tabby male, assitant to Mr. Tinkles in the Movie "Cats & Dogs"

## Appearance

The Exotic has a compact, rounded, powerfully-built body with a short, thick "linebacker" neck. Its large round eyes, short snub nose, sweet facial expression, and small ears give it a highly neotenic appearance that many people consider cute. He looks like a little teddy-bear.

## Description

**Head:** Round, massive. Very broad skull. Rounded forehead. Round, full cheeks. Short, broad, round muzzle. Short, broad nose with pronounced stop. Strong chin. Broad, powerful jaws.

**Ears:** Small, rounded at the tip, not too open at the base. Widely spaced and well-furnished with hair on the inside.

**Eyes:** Large, round, well-spaced. Pure, deep color corresponding to that of the coat (gold to copper in most varieties; green in the chinchilla and the golden; blue in the white and the colorpoint).

**Neck:** Short and thick.

**Body:** Medium in size, cobby, low to the ground. Broad chest. Massive shoulders. Large-boned, powerful muscles. Weight: 3,5 - 6 kilogram.

**Paw:** Short, straight, and large. Round, large paws. Tufts of hair between the toes are desirable.

**Tail:** Short, thick, carried low. Rounded tip.

**Coat:** Shorthaired but slightly longer than that of other shorthaired breeds. Dense, fluffy, erect hair. All Persian colors are recognized.

## Character

The Exotic Shorthair has a gentle and calm personality reminiscent of the Persian, but he is livelier than his longhaired ancestor. Curious and playful, he is friendly to other cats and dogs. Easygoing and quiet, as he rarely meows. He doesn't like being left alone, he needs the presence of his owner, but he's always independent. They tend to show more affection and

loyalty than most breeds and make excellent lap cats. Their calm and steady nature makes them ideal apartment cats for city dwellers. Nonetheless, Exotics retain some of the energetic spark of their American Shorthair forbears and they are often capable mouse hunters.

## Care and grooming

Unlike the high-maintenance Persian, the Exotic is able to keep its own fur tidy with little human assistance, weekly brushing and combing is recommended to remove loose hair and reduce shedding and [hairballs](#).

As with other flat-faced animals, the Exotic's tears are prone to overflowing the nasolacrimal duct, dampening and staining the face. This can be relieved by periodically wiping the cat's face with a cloth moistened with water or one of the commercial preparations made expressly for the purpose.

This robust and healthy breed does not reach maturity until around two years of age and enters puberty fairly late. When two Exotic Shorthairs are crossed, they may produce longhaired kittens called "Exotic Longhairs" by the C.F.A. and considered Persian in France, externally they look like Persians, but genetically they are different.

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## Foldex Cat

The **Foldex cat** is a cross between [Exotic Shorthairs](#) and [Scottish Folds](#), bred in Canada. It has a [Persian](#)-type cobby conformation combined with folded ears. The breed remains controversial because of skeletal defects associated with the Scottish Fold breed.

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## Foreign White

**Foreign White** is a [cat](#) breed of [Siamese](#) heritage. It has white coat and blue eyes. It is virtually immune against deafness usually associated with white cats with blue eye colour.

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## Havana Brown

### Country of origin

Britain

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#)

The **Havana Brown** is a [breed](#) of [cat](#), resulted from persistent efforts to develop a completely brown cat breed. In the early 1950s in Britain, a cross between a seal point [Siamese](#) and a black [domestic shorthaired cat](#) with Siamese heritage led to the foundation stock for the Havana Brown.

The Havana Brown is a moderately sized, muscular short-haired cat with a body of average length. The coat color must be brown, typically reddish-brown, with no [tabby](#) markings. Whiskers should also be brown and the eye color should be green. The head should be slightly longer than wide and the nose should have a distinct stop at the eyes. Males tend to be larger than females and are average in weight compared with other breeds.

The Havana Brown is an intelligent cat that often uses its paws both to examine objects, and to communicate with its owners. The most likely explanation of the breed's name is that its coat color is very similar to that of Havana cigars.

The breed has been recognized for championship competition in both the US and Britain since the late 1950s. It is considered an endangered breed, since the breeding pool is very small. In the late 1990s, there were only 12 CFA-registered Havana Brown catteries and under 130 unaltered cats.

## References

Susie Page; *The Complete Cat Owner's Manual*; Fog City Press; ISBN 1-875137-84X (hardback, 1997)

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## Himalayan

The **Himalayan**, also called colourpoint persian, is a [breed](#) of [cat](#) with extremely long, fluffy fur, and the blue eyes and the points of a [Siamese](#). Himalayan is the American term, while in Europe they are referred to as colourpoint persians.

They were bred from Siamese (for the markings) and [Persians](#) (for coat-length and temperament), and share characteristics of both breeds. Himalayans are now considered the same breed for cat registries (CFA), (TICA) as the modern Persian [show cat](#) since they have the exact same conformation with a pointed coat.

The body of a Himalyan is white, but the points come in many different colours: blue, brown, lilac, chocolate, red and creme. The points can also be tabby or tortie patterned.

These cats are sweet-tempered, intelligent, social and good companions. Because of their heritage from the Siamese cats they tend to be more active than an ordinary Persians. Their coat needs daily attention and grooming, because, like many longhaired cats, they have an abundance of fur.

## Trivia

The Himalayan cat has become well-known in recent years with the movies Meet The Parents (2000) and Meet The Fockers (2004). The cat seen in the two movies was named Mr. Jinx. In the movies Homeward Bound: The Incredible Journey (1993) and Homeward Bound II: Lost in San Francisco (1996), one of the main characters is a Himalayan cat named Sassy (voiced by Sally Field).

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## Japanese Bobtail

The **Japanese Bobtail** is a [breed](#) of [cat](#) with an unusual 'bobbed' tail more closely resembling the tail of a rabbit than that of an ordinary feline. The short tail is caused by the expression of a recessive gene. Thus, so long as both parents are bobtails, all kittens born to a litter will have bobtails as well. Unlike the [Manx](#) and other cat breeds, where genetic disorders are common to tailless or stumpy-tails, no such problem exists with the Japanese Bobtail.

The bobtail is a small oriental cat native to Japan and Southeast Asia. The breed has been known in Japan for centuries, and there are many legends and myths, as well as pieces of ancient art, featuring it. The Maneki Neko, or 'beckoning cat' is a bobtail.

Japanese bobtails may have almost any colour, but calico (called "Mi-ke", meaning "three-fur") or bi-colours are especially favoured by the Japanese. The Japanese Bobtail is a breed of domestic cat that originate in Japan, for many centuries; it is featured in many ancient prints and paintings.

Breed Standard: Japanese Bobtail

HEAD: The head should form an equilateral triangle. (Not including ears)

EARS: Large, upright, set wide apart but at right angles to the head and looking as if alert.

MUZZLE: Fairly broad and round neither pointed nor blunt.

EYES: Large, oval rather than round. They should not bulge out beyond the cheekbone or the forehead.

BODY: Medium in size, males larger than females. Long torso, lean and elegant, showing well developed muscular strength. Also balance is very very important.

NECK: Not to long and not to short, in proportion to the length of the body.

LEGS: Long, slender, and high. The hind legs longer than the forelegs,

PAWS: Oval. Toes: five in front and four behind.

COAT (SHORTHAIR): Medium length, soft and silk.

COAT (LONGHAIR): Length medium-long to long, texture soft and silky gradually lengthening toward the rump.

TAIL: The tail must be clearly visible and is made up of one or more curves.

POINT SCORE HEAD... 20 TYPE... 30 TAIL... 20 COLOR and MARKINGS... 20 COAT... 10

The Japanese Bobtail is a recognised breed by all major registering bodies: CFA ([www.cfa.org](http://www.cfa.org)), TICA ([www.tica.org](http://www.tica.org)), FIFE; Shorthair only ([www.fifeweb.org](http://www.fifeweb.org)).

## History

The earliest written evidence of cats in Japan indicates that they arrived from China or Korea at least 1,000 years ago. In 1602, Japanese authorities decreed that all cats should be set free to help deal with rodents threatening the silk-worms. Buying or selling cats was illegal, and from then on, bobtailed cats lived on farms and in the streets. So, the Japanese Bobtails are the "street cats" of Japan. In 1968 the late Elizabeth Freret imported the first three Japanese Bobtails to the United States from Japan. The beckoning cat, which is a Bobtail seated with one paw raised. Considered to be a good-luck charm, a maneki-neko statue is often found in the front of stores. Look around the next Japanese restaurant you visit you'll likely spot one. In 2001 the first registered litter of Bobtails in the UK were bred under the "Solstans" prefix.

## General

They usually have litters of three to four kittens that are extremely large for newborns. Compared to other breeds, they are active earlier, and walk earlier. Affectionate and generally sweet-tempered. Enjoys supervising household chores and baby-sitting. Well-defined sense of family life. They are active, intelligent, talkative cats. Their soft voices are capable of nearly a whole scale of tones; some people say they sing. Since they adore human companionship they almost always speak when spoken to. Because of their human-oriented personality they are easy to teach tricks and enjoy learning things like walking on a harness and lead.

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## Javanese

### Breed standards (external links)

[CFA](#)

The **Javanese** is a recognized [breed](#) of [cat](#). Javanese have a long, silky coat, that comes in a variety of colors. These cats are highly intelligent, and resemble the [Balinese](#).

Javanese are very social cats which will become depressed if they are left alone too often. They are generally very playful pets, and are markedly good at jumping. However, they do have a tendency to become overweight if they do not receive adequate exercise. Javanese are also quite vocal, and most will "talk" for no particular reason.

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# Korat

## Alternative names

Si-Sawat

## Country of origin

Thailand

## Breed standards (external links)

[KCA](#), [CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), FIFe

The **Korat** is one of the oldest stable [breeds](#) of [cat](#). Originating in Thailand, it is named after the Nakhon Ratchasima province, although in Thailand it is often known as Si-Sawat, which means good fortune. In fact they are often known colloquially as the "Good Luck Cat" and are given in pairs to newlyweds or people of high esteem as a wish for good luck.

The first known written mention of the Korat was in "The Cat-Book Poems" authored between 1350 and 1767 AD in Thailand, now preserved in the National library in Bangkok. They first appeared in America in the 1950s and arrived in Britain from there in 1972.

Korats are a shorthair with a small to medium build and a low percentage of body fat; their bodies are often described as semi-cobby, and are surprisingly heavy for their size. They are an active cat and form strong bonds with people.

Korats have several characteristics that together distinguish them as a breed:

- Korats are one of a few breeds that have only one colour: a silvery gray that often has lavender undertones - generally called blue in the cat world, although it is notably different in viewing from other 'blue' cats.
- Their eyes are a shade of yellow from birth (sometimes described as a "pale amber") but change to an emerald or peridot green at full maturity (2 to 4 years). During this change the eyes are green in the centre with a yellow at the edges. It should also be noted that unlike other cats when viewed at night using a spotlight their eyes reflect green rather than the more common red.
- Korats only have one coat (they lack a downy undercoat possibly due to their long history in a hot and humid climate) and do not shed much hair.

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# LaPerm

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [TICA - Longhair](#), [TICA - Shorthair](#)

The **LaPerm** is a recognized [breed](#) of [cat](#). A LaPerm's fur is curly (hence the name "perm"), with the tightest curls being on the belly, throat and base of the ears. La Perms come in many colors and patterns. La Perms generally have a very affectionate personality.

## LaPerm Breed Profile

(First Published in Our Cats)

The LaPerm is a very charming rex breed from the USA whose popularity in the UK is increasing steadily since it was introduced here. These cats are genetically unique and not related to any other rex breeds, having a dominant gene causing their curly coats. They have an elegant and athletic build which gives a clue to the fact that they are no couch potatoes, but active, outgoing cats who like to join in with whatever their humans are doing. When people see a LaPerm for the first time it is their soft coats of shaggy curls and ringlets which make a big impression.

## History

Think back to 1982; Cher was in the charts with Meatloaf singing Real Dead Ringer For Love, launching her rocky image with that big shaggy perm that seemed to trademark the early 80s. At the same time Linda and Richard Koehl had recently moved to the country for an easier pace of life, buying a cherry farm in The Dalles, Oregon, and not realising that they would soon be seeing a star with curls all of their own. The Koehls had a mouse problem so they invested in some hardy farm cats to keep the critters in check. One of these was a plain but hard-working brown tabby shorthair called Speedy who gave birth to a litter of kittens which included a rather bald, long skinny kitten a bit like the pink panther with a blueprint of a tabby pattern on her skin. Linda wondered if something was wrong with the kitten but as she grew she developed a lovely soft curly coat which everyone liked to touch. Perhaps this was also why she turned out to be so affectionate and a favourite of everyone on the farm.

Speedy didn't start sipping cocktails with Jackie Stallone and send Curly off to fame school, in fact Curly grew up and took her place alongside her mum as a champion mouser working hard on the farm. One day Curly, and the whole LaPerm breed, were almost wiped out when she climbed into the warm engine of a pick up truck and was sliced by the fan when it was started up. She pulled through and became a house cat for while convalescing from her injuries, but she managed to find her way out and into the arms of one of the farm's toms. As a young and innocent first time mum she didn't know what was happening and found herself in labour under a tree in the middle of a blustery rainstorm one night. Linda heard strange noises and took a torch outside to find Curly fiercely staving off barking dogs while straddling her newborn babies. Linda popped the babies into her pockets and took the family

into the warmth of a barn to make them a nest in the hay. The next day when Linda was able to look at them in daylight she realised that all five kittens had the same appearance as their mother had at birth. All five were male and grew up to have the same soft curls. They also took just as much interest in reproduction and with five studs keeping the farm's females entertained before long the cherry trees were as full of curly kittens as they had been with mice!

Linda found herself with a growing colony of unusual rex cats which included long and short coats and (thanks to the input somewhere along the way of a local cat who had a Siamese mother) chocolate and colourpoints too. It was only when people started commenting on her odd cats and asking what they were that she did some research and realised that she had some kind of rex. She took some cats to a show to ask for feedback and was told by exhibitors, breeders and judges that she had something very special. Several key people in the USA cat fancies gave her their support and the breed has grown and grown and is now a well established championship breed in the States with breeding programmes in many other countries around the world.

The LaPerm breed is strongly allied with Native American culture as the area where the Koehl's farm is situated is in a sacred territory of the Wishram people, a Chinook speaking tribe who traditionally made a living netting, drying and trading salmon from the Columbia river. The area still contains rock carvings of the vigilant goddess Tsagaglalal, who has obviously watched over the LaPerms. It is because of this that many LaPerm breeders give Native American names to their kittens and decorate their pens with this theme in mind when showing. The naming of the breed was a carefully considered affair; several possible names had already been used or were too clumsy sounding or close to something else so a name was chosen by Linda which evocatively brings to mind the breed's most important feature: its curly coat.

## Description

The LaPerm is in many ways a cat of moderation with no extremes and is still true to its original type. It does however have a striking appearance because of its unusual coat. The muscular foreign type body is medium in size with longish legs and neck. The head is a modified wedge with gently rounded contours and a muzzle which slightly broad of the wedge. In profile the straight nose leads into a gentle break between the eyes up to a flattish forehead. LaPerms also have rather broad noses. Their flared ears are placed to follow the line of the face, while their almond shaped eyes are medium large and expressive.

Like other rexes, all colours and patterns are acceptable, although tabbies, reds and torties are well represented reflecting their origins. Also the unusual colours from the early days of the breed have been selected for, so lilac, chocolate and colourpoints are popular. Tabby points are especially attractive. Newer varieties such as ticked tabbies, shadeds and darker points are also being bred. The curl tends to open up the coat showing off shading, ticking or silver undercoats.

The coat itself is described as having a unique textured feel. It is not silky, having a certain drag on the hand like velvet and the texture comes as much from the shape of the curls as from the mixture of different hair types. It should be soft and inviting, although the shorthairs

will have more texture to their coats. The coat is rather loose and bouncy often feeling springy when patted, and stands away from the body with no thick undercoat. It is light and airy and judges sometimes blow on the coat to see if it will part. The coat varies according to the season and the maturity of the cat but is essentially wavy or curly all over with the longest and most defined curls in the ruff and on the neck often falling in ringlets. There are also curly ear furnishings including tufts at the ear tips and ear muffs. The longhairs have a curly plumed tail while the shorthairs have tails rather like bottle brushes, and both have long curled whiskers. Sometimes the coat falls into a natural parting along the back, jokingly referred to as "the parting of the waves"!

## LaPerms in the UK

The first LaPerm in the UK was Uluru BC Omaste Po of Quincunx, a lilac tortie and white Longhair who was bred in the States by A. D. Lawrence. She was imported by Anthony Nichols using a PETS passport in May 2002 after a stop over with LaPerm breeder Corine Judkins in Holland. She arrived pregnant and gave birth to a litter of five kittens shortly after who were used as the foundation stock for the UK breeding programme. A number of other imports have followed or are in the pipeline, including cats from Europe, New Zealand and the USA. Judy Whiteford (Aswani) and Kate Munslow (Canonna) have been involved from that first litter and have both imported new cats themselves and Corine Judkins (Crearwy) has moved to Wales bringing her cats with her including the stud who sired the first UK litter. Several other breeders have joined our friendly gang and our numbers are growing.

LaPerm breeding policies share in common with other rex breeds the need to maintain a broad gene pool by careful use of outcrossing. This helps us to keep the breed vigorous with a minimum of health or breeding problems. In the States outcrossing has mainly been with non-pedigree cats and breeders seek out cats closely resembling the correct type. In other countries, including here in the UK, a select list of approved breeds is preferred. This list comprises the Ocicat and Tonkinese for the shorthairs and the Somali and Tiffanie for the longhairs (with their shorthaired equivalents also being permitted). We have undertaken some outcross matings with excellent results and have been delighted by the support we have received from people with other breeds.

In fact the LaPerm has been enthusiastically received all round with the Rex Cat Club, Rex Cat Association and Scottish rex Cat Club all agreeing to represent and support the breed and many judges attending our breed seminar. Also the best feedback has been from new owners who have been thrilled with their beautiful, loving pets. At the time of writing our preliminary status application is being prepared and we already have over fifty LaPerms in the country so we are well on track to assuring our place in the British cat fancy.

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LaPerm Cat Club [www.laperm.co.uk](http://www.laperm.co.uk)

The LaPerm Society of America <http://www.lapermcats.com>

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# Maine Coon

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [GCCE](#), [FIFE](#)

The **Maine Coon** is one of the largest [breeds](#) of domestic [cat](#), known for its intelligence, playfulness as well as distinctive physical appearance. The breed is one of the oldest natural breeds in North America and originated from New England.

## Origin

In the 17th and 18th centuries, domestic cats brought over from Europe faced very severe winters in New England where only the strongest and most adaptable cats survived. Through natural selection (as opposed to selective breeding), the Maine Coon developed into a large, rugged cat with a water-resistant, thick coat and a hardy constitution. The origin of the breed (and its name) has several (often fantastic) stories surrounding it. One comes from a legend that a domestic cat released in the wilds of Maine interbred with a raccoon, resulting in offspring with the Maine Coon's characteristics. Though this is biologically impossible, this myth, bolstered by the bushy tail and the most common coloring (a raccoon-like brown tabby) probably led to the adoption of the name 'Maine Coon.' Another popular story is that the breed sprang from the six pet cats which Marie Antoinette sent to Wiscasset, Maine when she was planning to escape from France during the French Revolution. However, most breeders today believe that the breed originated in matings between pre-existing shorthaired domestic cats and overseas longhairs (perhaps Angora types introduced by New England seamen, or longhairs brought to America by the Vikings). Maine Coons' long coats resemble their European counterparts, the [Norwegian Forest Cats](#).

## Physical characteristics

Maine Coons are very large (but energetic) cats, sometimes weighing 11.3 kilograms (25 pounds); the average weight is 6 to 9 kilograms (13-20 pounds) for adult males and less (7-11 pounds) for females. Growth to full size often takes longer than for most cats, with Maine Coons usually reaching full size at age three or four.

The most common color/pattern in the breed is brown with [tabby](#) markings. Maine Coons are recognized in all colors except for chocolate, lavender, ticked tabby, and the point-restricted ("Siamese") pattern. Eye color also varies widely. All patterns may have green, green-gold, or gold. Blue eyes, or one blue eye with one gold eye, are possible in white coat cats.

Maine Coons have medium-long, dense fur, with longer hair, or a *ruff*, on their chests similar to the mane of a lion (which is why the breed is sometimes humorously called the "Mane Coon"). Their fur consists of two layers - an undercoat and an additional layer of longer guard hairs, which gives the breed their key physical feature. The fur is generally very soft. Maine Coons have long hair on the backs of their legs (called pantaloons or britches) and between their toes which helps to keep warm in the cold. They also have bushy plumed tails and broad, angular heads, squared-off muzzles and wide-set ears topped with tufts of fur. Most Maine Coons keep their fur in good order without the need for additional human grooming, but due to the length and quantity of hair, most will also benefit from a simple brushing once a week. While the Coon may be polydactyl, having one or more extra toes on their paws, this trait is generally bred out, as it has been rejected by the standard.

## Behavioral characteristics

Maine Coons are a breed distinguished by intelligence, dexterity and playfulness. They have a tendency to use their front paws extensively (often curling the paw round to pick objects up) and as a consequence will easily learn to open cabinet doors, turn on water faucets, or pick up small objects. Some Maine Coons will eat with their paws, rather than eating from the bowl itself.

Due to their above-average intelligence, Maine Coons are known to be one of the easiest cat breeds to train. Maine Coons are generally very quiet and do not meow much. However, they are noted for their ability to trill their meows, which sounds like a combination of a purr and a meow, and they tend to make this sound when happy or startled. Maine Coons are a very independent breed, and they do not often "beg" for attention. They are noted for rarely eating alone, preferring to eat in the company of other cats or humans. Maine Coons are usually not "lap" cats, and many Maine Coons, probably because of their size, are not comfortable with sitting on a person's lap or chest, though this may depend on the personality of the individual cat.

Some Maine Coons enjoy playing with, but not usually in, water. They may dip toys in their water bowls before playing with them, or just tip the water bowl over. They may also skim their paws across the surface of their water bowl. Maine Coons occasionally engage in mischievous behavior when bored, such as deliberately pushing things off tables and the tops of fridges with their paws.

Maine Coons can be very dog-like in their behavior. Playing fetch is a favorite game. As with dogs, they will bring their ball, drop it at the feet of their intended playmate and wait patiently for the ball to be thrown.

## Health considerations

A genetic predisposition towards hypertrophic cardiomyopathy appears in some genetic lines of the Maine Coon population. In extreme cases, this condition can result in the sudden death of what appears to be an otherwise healthy animal. It can be detected by regular cardiac ultrasounds of pets between the ages of 3 and 6, the age at which the disease becomes detectable. Responsible breeders, in an effort to reduce the occurrence of HCM, now screen

their animals, some for four or more generations, and make this information available to potential pet buyers. If you are buying a Maine Coon, be sure to ask for these health records.

In the past, [Taurine](#) deficiency was a common cause of dilated cardiomyopathy in all cats, including Maine Coons. Since the pet food industry started adding Taurine to cat food, this kind of cardiomyopathy is increasingly rare. Taurine-related cardiomyopathy can be cured with the addition of the nutrient to the diet, but genetic HCM causes a permanent enlargement of the left ventricle and is rarely treatable.

Other potential health problems include [hip dysplasia](#) and Polycystic Kidney Disease. However, Maine Coons are generally quite healthy and resilient animals.

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## Manx

A rumpy brown classic [tabby](#) Manx.

### Common nicknames:

Cabbit, [Cymric](#) (if long-haired)

### Country of origin:

Isle of Man

### Breed standards (external links):

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#), [FIFe](#), [GCCF](#)

The **Manx** is a [breed](#) of [cat](#) with a naturally occurring mutation of the spine. This mutation shortens the tail, resulting in a range of tail lengths from normal to tailless. The hind legs are longer than the front legs, creating a continuous arch from shoulders to rump giving the cat a rounded appearance. Manx cats move with more like a hop than a stride when running; in this aspect, they resemble rabbits more than cats. Many Manx have a small 'stub' of a tail, but Manx cats are best known as being entirely tailless: it is the distinguishing characteristic of the breed.

## Origin

The Manx breed originated on the Isle of Man, hence their name. It is called kayt Manninagh in Manx Gaelic. They are an old breed, and tailless cats were common on the island as long as two or three hundred years ago. It is unknown exactly how the mutation originated, but one legend states that it was the result of cats surviving a shipwreck centuries ago. Legends even claim that Noah caused the breed to be tailless by closing the door to the ark as the Manx was entering, cutting off the tail. Other legends allege that cats and rabbits

mated, and their offspring became the Manx cat; the reasoning behind this is the fact that Manx usually do not have tails, and have longer hind legs, which gives them a similar appearance to rabbits, especially when running. This was further reinforced by the Cabbit myth.

The most probable scientific explanation of this breed's existence is that once the dominant mutant tailless gene was introduced to the island, it became common and concentrated in the genetically isolated population. This resulted in the "normal" cat on the island having a short or nonexistent tail.

## Other Tailless Cats

It is possible that excessive inbreeding can result in short tails, however, the Manx breed has its shortened tail due to a mutation in the tailless gene, which is dominant and inheritable regardless of the inbreeding coefficient of a particular cat. This gene, like many others, also occurs in the domestic cat population and in fact was probably transferred from the Isle of Man to it. For a cat to be considered a Manx, registering bodies (CFA, TICA, GCCF etc..) require that the cat show ancestry from the Isle of Man in an unbroken line of succession. Many of the distinguishing characteristics of cat breeds occur naturally sometimes in the domestic population. As much as cat resembles a certain breed, they are considered domestic cats unless the ancestry has been tracked through a pedigree. This is the same in pedigreed dogs. Thus a random bred cat lacking a tail is a domestic tailless, but not a Manx.

## Tail length

The Manx tailless gene is dominant and highly penetrant; kittens from Manx parents are generally born without any tail. There is no proven ratio of the amount of tailed to tailless kittens produced in each litter. However, tailed Manx bred to tailed Manx normally results in all tailed kittens, even though there are exceptions.

Manx kittens are classified according to tail length:

- **Dimple rumpy** or **rumpy** - no tail whatsoever
- **Riser** or **rumpy riser** - stub of cartilage or several vertebrae under the fur, most noticeable when kitten is happy and raising its 'tail'
- **Stumpy** - partial tail, more than a 'riser' but less than 'tailed'
- **Tailed** or **longy** - complete or near complete tail

Breeders have reported all tail lengths within the same litter.

The ideal show Manx is the rumpy. The stumpy and tailed Manx do not qualify to be shown. Depending on the presence of the mutant gene, their kittens may or may not be tailed. In the past, kittens with stumpy or full tails have been docked at birth as a preventative measure due to some partial tails being very prone to a form of arthritis that causes the cat severe pain. However, tailed Manx cats have been born for hundreds of years on the Isle of Man with no known documented problems. Most countries today have banned alteration of animals for cosmetic appearances. Some United States breeders still practice the docking Manx kittens tails as a rule. This practice is declining as other Manx breeders educate people that this breed can have a partial to full tail with no ill effects, and yet still be a Manx cat.

Docking tails on cats is not exclusively performed on the Manx breed; it can be performed on any cat breed for medical necessity.

The mutation that causes a Manx cat to be born without a tail does not occur in every Manx kitten — not all Manx cats lack a tail. However, since they carry Manx genetics, their kittens or descendants can be born without a tail even if their parents had tails. Some stumpy Manx are born with kinked tails because of incomplete development of the tail during the fetal stage. This is somewhat rare though, as other tail lengths (or lack thereof), as well as straight-tailed stumpy tails are much more common.

## Health

Pedigreed Manx cats today are much healthier and have fewer health issues related to their genetics than the Manx of years ago. This is due in part to the careful selection of breeding stock, and knowledgeable, dedicated breeders. Manx have been known to live into their mid- to high-teens and are no less healthy than other cat breeds. Like any other cat, keeping Manx cats indoors, neutering or spaying, and providing acceptable surfaces for the cat's normal scratching behavior are vital to lengthen the life of any cat.

## Manx Syndrome

**Manx Syndrome** is a colloquial name given to the condition which results when the mutant tailless gene responsible for shortening the cats' spine has an excessive negative effect. It can seriously damage the spinal cord and the nerves. The cat can have problems with spina bifida, bowels, bladder, and digestion as a result. Actual occurrences of this are rare in modern examples of the breed due to informed breeding practices. [1] Most pedigree cats are not placed until four months of age to make sure that proper socialisation has occurred. This gives adequate time for any mutant gene-related health issues to be seen, as they turn up early in the cat's life.

According to *Robinson's Genetics for Cat Breeders and Veterinarians*, both the Manx tailless gene and the [Scottish Fold](#) fold-eared gene are potential lethal genes in utero if extreme tailless to tailless are mated or if extreme fold-eared to fold-eared are mated. Problems are most likely to occur when two completely tailless Manx are bred together. For this reason, responsible breeders generally breed a 'stumpy' or fully-tailed Manx with a 'rumpy' or 'rumpy riser' to minimise the chances of serious defects. This breeding practice is responsible for the decreasing occurrence of spinal problems in recent years.

## Personality

The Manx breed is a highly intelligent [cat breed](#), it is playful, and in its behaviour, very reminiscent of dogs; for example, some Manx cats will fetch small objects that are thrown. It is considered a social feline, and the breed loves humans. This attribute makes them an ideal breed for families with young children. Some members of this breed tend to like water, many times even playing with it. This trait makes it very easy to give some Manx cats a shower for hygiene purposes, unlike most other cats. Although not as trainable as dogs, Manx cats can

learn simple commands, such as **No**. Other cat breeds that share similar personality traits are [Bengal](#) and [Ocicat](#). If there are multiple Manx cats in a household, an owner might notice that they chase each other frequently. This is common behaviour for Manx cats; they like to chase each other. However, Manx cats usually are very quiet cats, so this is typically their only vice.

One issue that Manx owners may have to deal with is that a completely tailless cat may display problems with bathroom hygiene. Many cats use their tail as an aid for releasing Feces. Since the rumpy variants do not have a tail, fecal matter may stick to their fur in the anal area, resulting in the Manx using whatever it can (carpets, the litter box, furniture, et cetera.) to assist in removal. This is not done out of spite, nor is it observed in every rumpy Manx. Such behaviour may be difficult to extinguish in a cat that has this issue.

## Coat

Manx cats exhibit two coat lengths. The short-haired Manx has a double coat with a thick, short under-layer and a longer, coarse outer-layer with guard hairs. The long-haired Manx, known to some cat registries as the [Cymric](#), has a silky-textured double coat of medium length, with britches, belly and neck ruff, tufts of fur between the toes and full ear furnishings. The Cat Fanciers' Association (CFA) considers the Cymric to be a variety of Manx. It is referred to as a long-haired Manx, but is shown in the short-hair division with short-haired cats even though its hair is longer. The International Cat Association (TICA) recognises the long haired Manx as a Cymric; the same in all respects as the Manx, except that the Cymric has a longer coat. TICA judges the Cymric with other long-haired cats in the long-hair division. Short- or long-haired, all Manx have a thick double-layered coat.

## Trivia

- The Manx breed, in spite of the absence of tail, has no problems with balance.
- The Isle of Man has adopted the Manx as a symbol of its native origins. On the Isle of Man, Manx cats appear on currency, coins and stamps.
- Even though Manx cats cease to be kittens after one year, it takes up to five years for any Manx cat to be fully grown.
- The Manx was developed before the 1700s, and since the breed is of medium size, the weight is on average 5.5 kg (12 lb).

## See also

- [Cymric](#)
- [List of cat breeds](#)

## Reference

Lorraine Shelton, et al.; *Robinson's Genetics for Cat Breeders and Veterinarians, 4th edition*; Butterworth-Heinemann; ISBN 0750640693 (hardcover, 1999)

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## Minx

There is no breed of cat called the **Minx cat** although the term is widely found, and erroneously used, on the internet and usenet. Advertisements regularly appear for Minx Cats, adding further credence to this non-existent breed. The term is a common error made by people unfamiliar with the [Manx](#) cat, a tailless breed of cat originating from the Isle of Man, Great Britain.

## Minx

*Minx* is sometimes colloquially used to indicate a miniature/dwarf form of [Manx](#) cat. It is not a separate breed.

## Mynx

*Mynx* (with a 'y') is sometimes colloquially used to indicate a first generation cross between a Manx cat and [Sphynx](#) breed or a hybrid between the Manx breed and the wild Bobcat. Some bobcat hybrids are called *Lynx* e.g. Desert Lynx and American Lynx due to their resemblance to a lynx.

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## Munchkin

The **Munchkin cat** is a relatively new [breed](#) created by a random mutation that produced a cat with extremely short legs. Munchkins have short or long coats in a wide variety of colours. Somewhat surprisingly, because of their short stature munchkins are particularly adept at climbing and jumping. They are usually raised as indoor cats, although they are reported to be extremely active, agile and fast runners. Those who have spent time around barns have proven to be extremely good hunters. The mutation only affects the length of the legs.

The breed was begun in 1983 when Sandra Hochenedel found an extremely short-legged black cat living under a trailer in Louisiana. The cat, Blackberry, was pregnant and half of her kittens were born short-legged. One of Blackberry's kittens, a tomcat named Tolouse, became the father of a breeding program and helped establish the breed in North America.

The Munchkin breed is not recognised by all registering associations and is specifically banned by the Fédération Internationale Féline [FIFe](#) and other European registries, but it is accepted by The International Cat Association (TICA).

## Genetics

The munchkin gene is an autosomal dominant one. Thus far to date, there have been no viable kittens that are homozygous for the munchkin gene, possibly because of gene lethality. Kittens that are heterozygous for the munchkin gene will be 'standard' munchkins. The remainder have normal length legs, but since it is a dominant gene these long/traditional legged cats cannot pass on the trait of short legs. Nor would this trait be passed on if the long legged kittens were crossed to another breed. Because only heterozygous munchkin cats survive to pass on the gene all litters can be a mix of standard and non-standard munchkins.

At one time it was theorized that this short legged trait was due to the same locus of genes that cause achondroplasia in humans, however all attempts to prove this to date, have failed. It is now believed to be the equivalent of hypochondroplasia which is much milder than achondroplasia. Achondroplasia affects more than the long bones of the legs. The munchkin cat is shorter than a standard domestic, but in all other respects it is identical, genetically and in size and overall appearance.

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## Nebelung

The **Nebelung cat** is a long-haired [cat breed](#), bred to resemble the [Russian Blue](#) with a long coat.

The breed was created in the early 1980s by Cora Cobb, with the two foundation cats being Elsa, a black [domestic shorthaired cat](#), and an unnamed blue domestic shorthair. The first mating of these two cats produced five black or blue shorthaired kittens as well as Siegfried (born 1984) who was blue with medium long hair. The second mating produced five black or blue shorthaired kittens, as well as a black longhair female and Brunhilde (born 1985), a blue longhaired female. Mrs. Cobb decided to mate Siegfried and Brunhilde, and their first litter was born in 1986. The offspring of Siegfried and Brunhilde were eventually out-crossed to natural Russian Blues in order to replicate the Russian Blue type. Although the Nebelung is sometimes called a longhaired Russian Blue, it is actually a separate breed, as the Russian Blue does not produce longhaired offspring. The Nebelung will produce both longhair and shorthair offspring in the same litter.

The breed was officially recognized by The International Cat Association (TICA) in 1987 under the 'new breeds' category. They are not recognized as a breed in the Cat Fanciers Association (CFA), or most other associations, as they mimic the natural, long established Russian Blue except for coat length.

Nebelung is a German word meaning 'creature of the mist'. These cats are judged in TICA on the same standard as a Russian Blue with the exception of their coat, which is mid-length with a dense plumpy tail. They have green eyes, and their fur must be 'blue' tipped with silver.

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## Neva Masquerade

The **Neva Masquerade** is the colourpointed equivalent of the [Siberian](#) Longhair [cat](#). Although naturally occurring in Russia, it differs in type from the Siberian cat recognised on the showbench and is therefore maintained as a separate [breed](#) and not as a colour division of Siberian. It is currently bred in Russia and the USA.

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## Norwegian Forest Cat

### Alternative names

Skaukatt, Norsk Skogkatt

### Common nickname

Wegie

### Country of origin

Norway

### Breed standards (external links)

[CFA](#), [ACF](#), [ACFA](#), [CCA](#), [TICA](#), [FIFe](#)

The **Norwegian Forest Cat** is a [breed](#) of domestic [cat](#) native to Northern Europe, and adapted to a very cold climate. In Norway they are known as **Skaukatts** or more properly, the **Norsk Skogkatt** (literally, Norwegian Forest Cat).

The breed is a very old one which occurred as a natural adaptation to the cold climate of the region, but it was not regarded as anything other than a standard house-cat until the late 1930s, when a small number of 'Skaukatts' were shown in Germany and received very favourably by the judges. World War II brought an abrupt end to the fledgling Norwegian show cat industry, and the breed was forgotten until the 1970s. The cats are now being bred and shown in several countries including the United States. The first international association to accept the breed was FIFe, in 1977.

Norwegian Forest cats have a thick fluffy double-layered coat, tufted ears and a long bushy tail to protect them against the cold. Their coat is essentially waterproof due to its coarse outer layer and dense underlay. They are very large cats with adult males weighing 6 to 10 kg (13 to 22 lb), while females are approximately half that size. Their hind legs are longer than their front legs. They are intelligent, playful cats that enjoy human company. The

nickname of "Wegie" began in the United States and is a shortened version of the word Norwegian.

## Countries introduced

Australia:	First	introduced	in	the	late	1990s
Japan:	First	introduced	in	the	early	1990s
United States:	First introduced in 1979					

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## Ocicat

The **Ocicat** is a new and still-rare [breed](#) of [cat](#) which has spots resembling a 'wild' cat and the temperament of a domestic animal, named for its resemblance to the ocelot.

Despite its appearance, there is no 'wild' DNA in the Ocicat's gene pool. The species is actually a mixture of [Siamese](#) and [Abyssinian](#), and later [American Shorthairs](#) (silver tabbies) were added to the mix for their silver colour and distinct markings.

The first breeder of Ocicats was Virginia Daly, of Berkley, Michigan, who attempted to breed an Abyssinian-pointed Siamese in 1964. The first generation of kittens appeared Abyssinian, but the surprising result in the second generation was a spotted kitten, Tonga, nicknamed an 'ocicat' by the breeder's daughter. Tonga was neutered and sold as a pet, but further breedings of his parents produced more spotted kittens, and became the base of a separate Ocicat breeding program.

There are twelve separate colour/pattern combinations registered for ocicats, and these fall into five larger groups - chocolate, cinnamon, tawny, silver and dilute. Ocicats must not have cream/red coloration or they are disqualified from showing.

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## Ojos Azules

### Country of origin

United States

### Breed standards (external links)

Not recognized by any major registry.

### Notes

Very rare breed

**Ojos Azules** are a relatively new [breed](#) of domestic [cat](#). Cats with dark blue eyes were discovered in New Mexico among [feral cat populations](#). The first cat discovered was a [tortoiseshell](#) named Cornflower, who was found in 1984. She was bred to males without the trait which proved to be dominant as all her kittens showed it. The breed was founded and named Ojos Azules, Spanish meaning 'Blue Eyes'. Ojos Azules are held distinct for their deep blue eyes. Unlike the blue eyes seen linked to the genes in [bicolor cats](#) and cats with [point coloration](#), both of which suppress pigmentation, this gene is not linked to any certain fur color or pattern, giving the opportunity to have cats with dark coats and blue eyes. The depth of color in the eyes is greater even than that seen in a [Siamese \(cat\)](#), and does not cause squinting, deafness or cross-eye. They are a very rare breed. In 1992, only ten were known. No true standard has been made, and no cat registration recognizes them. So far, only cats expressing the deep blue eye gene have been called Ojos Azules. It was recently discovered that cranial defects may be linked to the gene, and breeding was temporarily suspended.

Following genetic investigation by Solveig Pflueger, breeding resumed in a small way with attempts to breed Ojos Azules without the lethal genetic defects. One indicator of the Ojos gene is a flattened tail-tip.

## References

Cat World, a Feline Dictionary by Desmond Morris, published in 1997.

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## Oriental Longhair

The Oriental Longhair is a [breed](#) of [cat](#) that features a tubular, [Siamese](#)-style body (known in the cat fancy as *oriental* type), but with a longer coat than the short-haired Siamese. The coat can also come in a variety of colors and patterns, including tabby, "tortie", and solid.

In 2002, the British Angora was renamed Oriental Longhair by British cat fancies. This avoided confusion with the Turkish Angora. With no globally recognised naming convention, other cat fancies refer to this type as Javanese, Foreign Longhair or Mandarin.

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## Oriental Shorthair

An Oriental Shorthair Blue Eyed White - Notice how the line of the nose, eyes, and middle of the ear form a triangular wedge.

## Country of origin

United States

## Alternative Names

Foreign Type

## Breed standards (external links)

[ACFA](#), [ACF](#), [CFA](#), [TICA](#), [GCCF](#), [CCA](#), FIFe

The Oriental Shorthair is a [breed](#) of [cat](#). It is also called a "Foreign Type" cat. This cat combines the [Siamese](#) body with a diversity of colorings and patterns.

## Description

Oriental Shorthairs can be found in solid colors (white, red, cream, ebony, blue, chestnut, lavender, cinnamon, or fawn), smoke (silver undercoat to any of the above except white), shaded (only the hair tips colored), parti-color (red or cream splashes on any of the above), tabby (striped) and bi-colored. In total, there are over 300 color and pattern combinations possible. In addition to the colors accepted for competition, in CFA, a pointed cat from at least one Oriental Shorthair parent is considered an AOV (Any Other Variety). In TICA, these cats are considered Siamese and can compete as Siamese.

Oriental Shorthairs have expressive, almond-shaped eyes, a wedge-shaped head with large ears that fit in the wedge of the head. Their bodies are very elegant yet muscular. When seeing an Oriental Shorthair, one would never guess them to be as solid as they are.

The longhaired version of the Oriental Shorthair, [Oriental Longhair](#), simply carries a pair of the recessive long hair gene.

## Origins

The Oriental Shorthair breed was created by crossing a [Siamese](#) to an [American Shorthair](#). This cross was then bred back to the Siamese to retain the fine boning and elegant form.

The breed officially began around 1950 in England, when Baroness von Ullman (Roofspringer Cattery), decided to create a breed of cats with shorthair, solid colors, and the "foreign" body type--the long, lean body characteristic of the [Siamese](#), [Russian Blue](#), and [Abyssinian](#). Initially accepted by Cat Fancy in England as "chestnut foreign shorthairs", additional breeders soon created an all white, blue-eyed variant who gained popularity and recognition by Cat Fancy as "white foreign shorthairs". Breeders then began cross-breeding with Siamese to move the body type closer to the Siamese.

In 1972 Peter and Vicky Markstein (Petmark Cattery) visited England looking for new Siamese breeds. Struck by the combination of colors and patterns with Siamese body-type, the Marksteins brought the breed to the United States. Shortly thereafter the Marksteins proposed that CFA recognize the breed as a separate one from the Siamese, designating it the Oriental Shorthair. CFA recognized the breed for championship status in 1977. A rapid

proliferation of breedings led to new color and pattern combinations. CFA recognized the [Oriental Longhair](#) in 1995 (known as the Javanese or [Havana Browns](#) in Europe; also known as the Angora in Great Britain, but distinguished from the [Turkish Angora](#)).

## Oriental Shorthairs as pets

Oriental Shorthairs are intelligent, social animals who bond closely to their people. They are inquisitive, highly friendly, emotional, and sometimes quite vocal. People have commented that the Oriental Shorthair looks like a Greyhound or a Chihuahua. Many comment that they are much more 'dog-like' in personality.

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## Oriental Cat

The term **Oriental cat** is not generally used for any one particular [breed](#) of [cat](#). Rather, it describes a set of physical characteristics belonging to a number of [cats](#) from Southeast Asia.

The Cat Fanciers' Association and the GCCF (the Governing Council of the Cat Fancy in the UK), however, do recognize the Oriental as a specific breed.

Orientals have small, lean, athletic bodies, large triangular ears, almond-shaped eyes, and usually a very curious, inquisitive, intelligent temperament. They also have a loud voice and 'talk' a lot more than most other cats. Originally, all orientals were short-haired, with a very light-weight and generally light-coloured coat befitting the hot climate of their origin, but they have been cross-bred with [Persians](#) and other long-haired to create medium and long-haired oriental breeds such as the [Birman](#) and [Himalayan](#). They are also being cross-bred with the [Bengal Cat](#) to produce the [Serengeti Cat](#).

The most ubiquitous 'oriental' cat is the [Siamese](#). Other oriental breeds include the [Japanese Bobtail](#) (described as a semi-oriental), [Burmese](#), [Balinese](#) and many others.

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## Persian

A white Persian

### Country of origin

Iran (Persia)

### Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#), [ACE](#), FIFe

The **Persian** cat is one of the oldest [breeds](#) of [cat](#). In Britain, it is called the "Longhair" or "Persian Longhair" (tipped varieties are known as "Chinchilla Longhair").

The Persian cat is reputed to originate from Iran (Persia), but interbreeding of Angoras with native British domestic longhairs in the 19th Century makes the true origin of the breed unclear. A show-quality Persian has an extremely long thick coat, short legs, a wide head with the ears set far apart, large eyes, and an extremely foreshortened muzzle. The breed was originally established with a short (but not non-existent) muzzle, but over time this feature has become extremely exaggerated, particularly in North America, and Persians are prone to a number of health problems (specifically affecting their sinuses and breathing) caused by it. However, conscientious breeders eliminate this by careful choice of breeding stock, as the goal is first and always healthy cats.

Persian [cats](#) can have any colour or markings including [points](#), [tortoiseshell](#), blue, and [tabby](#). Persian cats with point are referred to as Colourpoint Persian in Europe and [Himalayan \(cat\)](#) in United States.

In the USA, there was an attempt to establish the silver Persian as a separate breed called the [Sterling](#), but it was not accepted and silver and gold longhaired cats are judged in the Persian category of [cat shows](#). In South Africa, the attempt to separate the breed was more successful: the SA Cat Council (SACC) registers cats with 5 generations of pure bred Chinchilla as [Chinchilla Longhair](#). The Chinchilla Longhair has a slightly longer nose than the Persian, resulting in healthy breathing and no tearing of the eyes. Its hair is translucent with only the tips carrying black pigment: a feature that gets lost when out-crossed to other colored Persians. Out-crossing also may result in loosing nose and lip liner, which is a fault in the Chinchilla Longhair breed standard.

Because their fur is too long and dense for them to maintain themselves, Persian cats need extensive and regular grooming. To keep their fur in its best condition, they must be bathed regularly, dried carefully afterwards, and brushed thoroughly every day. Their eyes need to be checked for problems on a regular basis because some animals have trouble keeping them clean.

A Persian cat without an established and registered [pedigree](#) is classed as a [domestic longhair cat](#).

Silver Chinchilla Persian

Blue Colourpoint Persian

Persian silver shaded

Blue Tabby Persian

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## Peterbald

The **Peterbald** is a breed of Russian hairless cats.

Peterbalds look very elegant and slim and have a distinctive head: narrow and long with a straight profile, almond-shaped eyes, and big set-apart ears. Peterbald cats look much like hairless Oriental Shorthair cats.

Peterbalds usually have sweet temper and they are peaceful, curious, smart and energetic. Peterbalds love their family members and need to communicate with them; they do not belong to an independent kind of cats. Peterbalds live in harmony with another cats and pets and also with children. They are also not vindictive and all that makes peterbalds an excellent companion cats.

The Peterbald breed was founded in the end of 1994 in St.-Petersburg, Russia as a result of experimental mating of Don hairless (Don Sphynx or Donskoy) male called Afinogen Myth and Oriental Shorthair female World Champion Radma von Jagerhov. The breed was created by a well known Russian felinologist Olga S. Mironova. First two litters gave four peterbald kittens: Mandarin iz Murino, Muscat iz Murino, Nezhenka iz Murino and Nocturne iz Murino. These four peterbalds are founders of the breed.

In 1996, the breed was adopted in Russian Selectional Feline Federation (SFF) with a standard and an abbreviation PBD. In 1997 it was adopted in The International Cat Association (TICA) with abbreviation PB, and in 2003 in World Cat Federation (WCF) with abbreviation PBD. Used handles of the breed are: PBD, PTB, PD and PSX.

These days the breed develops in the direction of modern Oriental and Siamese type, that is long muzzle, set apart big ears, flat cheek bones, elegant body on long legs. This is why all standards for this breed encourages mating with Oriental and Siamese cats and semi-longhair variations of those (balinese and javanese).

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## Pixie-Bob

Short-haired Pixie-Bob

### Country of origin

United States

### Breed standards (external links)

[CCA](#), [TICA](#)

The **Pixie-Bob** is a [breed](#) of [cat](#). According to legend, it is a hybrid offspring of a domestic cat and a bobcat, but DNA testing has failed to show that Pixie-Bobs are directly related to bobcats. Directly related would indicate identical Y-Chromosomes or limited Marker match testing. Therefore, Pixie-Bob are legally designated as domestic cats, even if they might have Bobcat heritage. The Pixie-Bob has a large body with big feet, and usually a short, bobbed tail and a gentle personality. Most Pixie-Bobs are short-haired, with the less common long-hair Pixie-Bob more closely resembling a bobcat. Its markings resemble those of a bobcat, with spots, stripes and swirls. This breed is currently the only one accepted by any major club to allow polydactyls, cats having more than the usual number on toes on each foot (five for the

front paws, four for the back). Adult males weigh 16–22 lbs (7–10 kg), and females weigh 8–12 lbs (3.5–5.5 kg).

## Breed Description

### Physical characteristics

Pixie-Bobs are approximately 50% larger than most domestic cats (which weigh 5.5–16 lbs or 2.5–7 kg). Most Pixie-Bobs have black fur and skin on the bottom of their paws, tipped ears, heavy ear hair, black lips, and white fur around the eyes but with black eye skin. Their chins have white fur, but often have black skin under the white fur. Some of their whiskers change from Black (root - about 25%) to White (to the tip - about 75% of the whisker). Tiger-like fur pattern, but often have reddish tones mixed in. Stomach is often reddish-gold in color with some ticking (broken stripes). Most are short-haired, but some are long-haired. Eyes are almond shaped and tilted. Eyes are blue when kittens, then change to green, and finally to gold when several months old (some don't change completely to Gold, but have a Gold with a green tint). Tails can be non-existent (rumpy), or 2-4 inches (desired - TICA required), or long tails (Pixie was a long tail). The head is usually-pear shaped. The head and tail are considered the important characteristics. They grow for 3 years instead of 1 year like most domestic cats.

### Temperament

They are highly intelligent, social, active (but not hyper-active), bold, courageous, and enjoy playing with other animals. Known for their chirps, chatters, and growls. Some Pixie-Bobs can be highly sociable around their owners and strangers, while others are highly social around their owners, but shy around strangers. Almost all Pixie-Bobs like to be in the same room as their owners, and will follow their owners around the house. Other personality characteristics, are head bunting; Chirping "language" (communicating with owners and other Pixie-Bobs) by different chirps; Most don't meow often, and some don't meow at all; Ball fetching and playing; Some can be walked on a leash; Highly intelligent (Dog analogy would be intelligent like a Golden Retriever) and capable of understanding some human words and phrases.

## Breed history

Carol Ann Brewer is credited with the creation of the Pixie-Bob breed in the mid 1980s. She took two different "Legend cats", believed to be the result of natural breeding between bobcats and [domestic cats](#), and bred them to create the first Pixie-Bob domestic cat. This first cat was named Pixie, hence the name Pixie-Bob. DNA testing shows that Pixie-Bob cats are domestic, and not wild or an exotic hybrid, as the early advertisements had alleged, but many are still unsure if this is entirely true. Pixie-Bob cats share many of the physical and personality characteristics of bobcats, except they are approximately half the size, and do not have some of the wild characteristics. Pixie-Bobs are a paradox. They look and act very

much like Bobcats, but are legally defined as domestic cats. For a cat to be considered a Certified TICA Pixie-Bob cats, they cannot be bred with bobcats, and one of their parents must be traced back to Pixie the cat.

## Other information

While Pixie-Bobs are considered to be domestic cats, Pixie-Bobs have been used to create other exotic hybrids such as the Desert Lynx and Jungle Bobs. Pixie-Bobs are legal in all 50 states without a license, and are legally considered domestic cats, despite the fact that they appear to have a bobcat heritage.

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# Ragamuffin

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [CFF](#), [ACFA](#), [UFO](#)

## General Description

The Ragamuffin is a long-haired domestic cat similar in appearance to the [Ragdoll](#). Ragamuffins are fairly large cats, queens weigh between 4.54 and 6.80 kg (10 to 15 lb) and toms weigh between 6.80 and 9.07 kg (15 to 20 lb). Each cat has a fatty pad on its lower abdomen and all are heavily boned.

Ragamuffins have plush, non-matting, soft fur which comes in many color varieties. The cats have very large expressive eyes.

They take longer to mature than most other cats, approximately 4 years to reach adulthood. Ragamuffins typically have long life spans in comparison to other domestic cats. They are a healthy robust feline with no recognized illnesses.

## History

The Ragamuffin is one of the newest breeds of domestic cat. It was created in 1994. The exact development of this breed is cloudy and will likely remain a mystery. It was accepted in the Cat Fanciers' Association (CFA) miscellaneous class in 2003.

## Mrs. Ann Baker

Many believe the Ragamuffin resulted from accidental breeding. Some accounts suggested Mrs. Baker started the breed in the 1960s with a Ragdoll [cat](#) named **Josephine** and a regular, non-pedigree cat. The kittens turned out so cute and so special; Mrs. Baker wanted to preserve their special qualities by breeding Josephine's offspring and by being the only person to breed and sell Ragamuffins. Mrs. Baker's restrictions created friction between herself and the other breeders, who ultimately, branched off on their own and pushed for the new registry with the CFA.

## Color forms

This breed has several of the color formations that are present on Ragdolls, but also has a variety of different colors. Some colors include: all variations of pointed color, including Tortie Point, Red Point, and Lynx Point. It is said that Particolor and Mitted Ragamuffins are virtually identical to Ragadolls.

## Personality

The Ragamuffin is described as a docile and affectionate cat. They are highly intelligent and love to play. Placid and loving have also been used to describe this feline. Because of their gentle nature, Ragamuffins are generally kept indoors for their own protection.

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# Ragdoll

A sealpoint, bicolor Ragdoll.

A young, purebred Ragdoll asleep.

A blue colorpoint Ragdoll.

A lilac tortie-point Ragdoll.

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#), [FIFe](#)

The **Ragdoll** is a [breed](#) of medium longhaired [cat](#). It is best known for its docile and placid temperament and affectionate nature. It is perhaps the gentlest and most easy-going of breeds. They are non-aggressive to the point that many cats cannot or should not be let outside for prolonged periods as many will not defend themselves and most do not hunt. The name "Ragdoll" derived from the fact that many of these cats go completely limp and relax

when picked up. Ragdolls have a sturdy body, short legs, and a thick coat with [Siamese](#)-style [points](#).

## History

The breed had its origin in California in the 1960s with a cat named Josephine. Several wild and scientifically impossible stories were put out by the colorful breed founder regarding the origin and development of the Ragdoll breed, including extraterrestrials, kittens' traits and personality being affected by the mother's being hit by a car, and genetic alteration using human genes. None of these legends are scientifically supportable.

What is known is that this breed was selectively bred over many years for desirable traits, such as large size, docility, and ability to go limp in the arms like a rag doll - hence the cat's name. There have been attempts to establish several competing ragdoll-type cats, among them the [Ragamuffin](#). Most of these attempted breeds are not recognized as there is little difference between them and the already-recognized Ragdolls, however the Ragamuffin is recognized by some registries.

## Characteristics

The Ragdoll is a large, semi-longhaired cat, exhibiting the pointed pattern in three varieties: colorpoint, bicolor, and mitted. Coat colors can be seal, blue, chocolate, and lilac point colors, either with or without markings on the face and feet. In some associations, they are also available in nonstandard colors, such as red (flame) and lynx point. Their long coats need minimal care and do not usually become matted, however elderly Ragdolls may require routine care similar to normal long-haired cats.

Ragdolls typically take up to 4 years to fully mature physically. An adult male can weigh between 12 and 20 lb, while the females can weigh between 10 and 15 lb.

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## Rex Cat

A **rex cat** is any of a number of different domestic [cat](#) breeds, distinguished by short, wavy fur, with little in the way of an outer coat. The breeds originate from naturally occurring genetic mutations, which have since been selectively bred. There are four main recognised rex breeds:

- [Cornish Rex](#)
- [Devon Rex](#)
- German Rex
- [Selkirk Rex](#)

The [LaPerm](#) is also sometimes considered a rex. Though the breeds look similar and are generally grouped together for show purposes, each results from a separate mutation rather than being bred from a common ancestor.

## See also

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# Russian Blue

Russian Blue cat

## Country of origin

Russia

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#), FIFe

## Notes

The ACF also recognizes Russians in white and black.

The **Russian Blue** is a [breed](#) of [cat](#). It has a lean medium-sized body and a short, plush blue (a blueish-gray that is the dilute expression of the black gene) coat. This coat is unique to the breed as it is a double coat, with the undercoat being a soft and downy and the longer guard hairs an even blue with the silver tips. This "tipping" gives the coat a shimmering appearance. Its eyes are green and ideally should be dark and vivid. These cats are highly intelligent and playful but tend to be shy around strangers. They also develop a close bond with their human companions.

Unlike many modern cat breeds, the Russian Blue is a naturally occurring breed which is believed to originate in the port of Arkhangelsk, Russia, although the only evidence of this is anecdotal. They are found in many countries, and the majority of their modern breeding program has been carried out in the USA.

Although they have been used on a limited basis to create other breeds (such as the [Havana Brown](#)) or add type to a breed in creation (the [Nebelung](#)), Russian Blues themselves are shorthaired, blue cats.

Russian Blues should not be confused with 'British Blues' (which are not a distinct breed but rather a [British Shorthair](#) with a blue coat), nor the [Chartreux](#) or [Korat](#) which are two other naturally occurring breeds of blue cats.

During the early 1970's, Mavis Jones, a Russian Blue breeder in Australia, mated a domestic white cat with a Russian Blue with the intent to create a solid white Russian Blue.

By the late 1970's, the Russian White and Russian Black colors were accepted by the cat fancy in Australia as true Russian cats. These hybridized colors are accepted in a few other registries and only on a limited basis.

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# Savannah

## Country of origin

USA

## Breed standards (external links)

[TICA](#)

The *Savannah Cat* is a new and still fairly rare exotic domestic cat breed that is the result of a cross between an African Serval and a domestic cat.

## Generations

As Savannahs are produced by crossbreeding servals and domestic cats, each generation of Savannahs is marked with a filial number. For example, the cats produced directly from a Serval/domestic cat cross are the F1 generation, and they are typically 50% serval (although if you use a F1 Savannah as the domestic cat, the percentage of serval blood can jump to 75%). The F2 generation, which has a serval grandparent and is the offspring of the F1 generation, is 25% serval. The F3 generation has a serval great grandparent, and is 12.5% serval. They can be very expensive to purchase because of their scarcity.

Male Savannah cats are typically sterile until the F5 generation or so, although the females are fertile from the F1 generation and on.

## Characteristics

Savannahs tend to be one of the larger breeds of cats, ranging up to 32 pounds (most other domestic cats range in the area of 5.5 and 16 pounds). The earlier generations, F1's to F3's or so, tend to be larger than the later generations. Also, the males are often larger than the females.

The bodies of Savannahs are long and leggy--when a Savannah is sitting, their hind legs are often higher than their spine, like a Cheetah. Their heads tend to be longer than they are wide, and like their serval ancestors, they have long necks. Also like servals, they tend to have spots on their ears, and their tails are about 3/4ths the length of other cats'.

The coat of a Savannah depends a lot on the breed of cat used for the domestic cross. Early generations always have some form of dark spotting on a lighter coat, and many

breeders employ "wild"-looking spotted breeds such as the [Bengal](#) and [Egyptian Mau](#) for the cross to preserve these markings in later generations. The Savannah can have a tan coat with black or brownish spots, or a silver coat with dark spots, a marble pattern, and many other patterns and combinations, although the TICA breed standard limits member cats to Black, Brown Spotted Tabby, Silver Spotted Tabby and Black Smoke types only.

## Behaviors

Temperamentally, Savannahs have been compared to dogs in their loyalty, and they will follow their owners around the house like a canine. They greet people with head-butts or sometimes pounces out of nowhere (many a guest entering a house with a Savannah have been pounced upon in the entry way!) They have a lot of energy and are social animals that do well with both cats and dogs.

Owners of Savannahs say that they are very impressed with the intelligence of this breed of cat. Savannahs have been known to get into all sorts of things; they often learn how to open doors, cupboards, and anyone buying a Savannah will definitely have to "Savannah-proof" the house to prevent their pet from getting into things it shouldn't! Also, many owners have trained their Savannahs to walk on a harness and do various tricks like fetching toys.

Water isn't a fear of the Savannah cat; they will jump right into the bathtub or shower with people sometimes, and get into pools and streams like their wild ancestors.

Vocally, like their serval parents and grandparents, Savannah cats normally "chirp" instead of meow.

## Care

Savannah cats have no special care or food requirements; they can eat cat food like any other domestic cat, use the litterbox, and a normal veterinarian is qualified to care for one that needs a checkup or is sick.

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## Scottish Fold

The **Scottish Fold** is a [breed](#) of [cat](#) with a natural mutation to its ears. The ear cartilage contains a fold so the ears bend forward and down towards the front of their head.

The original Scottish Fold was a long-haired white-haired barn cat named Susie, who was found at a farm near Coupar Angus in Perthshire, Scotland in 1961. Susie's ears had an unusual fold in their middle, making her resemble an owl. When Susie had kittens, two of them were born with folded ears, and one of the siblings was acquired by William Ross, a neighbouring farmer and cat-fancier. Ross registered the breed with the Governing Council of the Cat Fancy in Great Britain and started to breed Scottish Fold kittens with the help of geneticist Pat Turner. The breeding program produced 76 kittens in the first three years - 42 with folded ears and 34 with straight ears. The conclusion from this was that the ear

mutation is due to a simple dominant gene. If one parent provides the gene for straight ears, and one parent provides the gene for folded ears, the kittens will be Folds.

The breed was not accepted for showing in Great Britain and Europe as it was felt that they would be extremely prone to ear problems such as infection, mites and deafness, but the folds were exported to America and the breed continued to be established there using crosses with [British Shorthair](#) and the [American Shorthair](#).

Scottish Folds can be either long or short-haired, and they may have any coat colour combination except for Siamese-style points. Pointed Folds have been bred but they are not eligible for showing. The original cats only had one fold in their ears, but due to selective breeding they have increased the fold to a double or triple crease that lies the ear totally flat against the head.

Scottish Folds are a very relaxed, sweet, and loving breed. They enjoy following their owners around the house, and don't like being left alone for longer than a few hours. They are not very vocal, and have quiet voices. Scottish Folds are known for laying on their backs. Some say they resemble an Otter when they lay or sit on their haunches.

There is one medical problem that has been found to be related to Scottish Fold breeding. If both parents have folded ears, their kittens will be extremely prone to developing a painful degenerative joint disease that fuses the tail, ankles and knees. The disease is not fatal, but as it is easily avoidable, reputable breeders will only breed fold to non-fold.

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## Selkirk Rex

The **Selkirk Rex** is a [breed of cat](#) with highly curled hair, including the whiskers (vibrissae). Unlike the Devon Rex and Cornish Rex, the hair is of normal length and not partly missing, and there are longhair[\[1\]](#) and shorthair[\[2\]](#) varieties. Also unlike the other Rexes, the Selkirk gene is dominant.

The Selkirk Rex originated in America in 1987, with a cat named Miss DePesto, who was bred to a Persian, producing three Selkirk Rexes and three straight-haired cats. It is a large and solidly built breed, similar to a British Shorthair but with a characteristic curled coat. The coat has a woolly look and feel.

American Shorthairs, Persians, Exotics and British Shorthairs have been used as out crosses to develop this breed. The American Shorthair has now been discontinued as a breeding partner. In Australia Persians, Exotics and British are accepted out crosses until 2015.

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## Serengeti Cat

The **Serengeti cat** is a cross between the [Bengal cat](#) & an [Oriental cat](#) which until the breed is more established would most likely be a [Siamese](#).

The breed is still in the development stages, but the ultimate aim is to produce a cat that looks similar to a Serval, without using any recent wild cat blood. (Hybrids of domestic cats and the Leopard Cat form the foundation of the Bengal breed.)

Serengeti cats are spotted cats, with long legs & very large ears. Males are generally slightly larger & heavier than females & can weigh up to 15lbs; females generally weigh between 8 & 12lbs.

They are recognised by TICA (The International Cat Association) in tabby, ebony silver, ebony smoke & solid black. A group of breeders in the UK are currently working towards getting TICA to also recognise the snow spotted (aka lynx-point) variety.

The tabby is known as the brown spotted in the UK - however spots can be black or dark brown on a tan, light beige or gold background. The silver has black spots on a silver background. Ghost spotting can sometimes be seen on the solid black version.

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## Siamese

An example of an "apple-headed" Siamese cat

### Country of origin

Thailand

### Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACE](#), [FIFe](#), [GCCF](#)

The **Siamese** is one of the first distinctly recognised [breeds](#) of [Oriental cat](#). The exact origins of the breed are unknown, but it is believed to be from South-East Asia, and may be descended from the sacred temple cats of Siam (hence their name). The breed was first seen outside their Asian home in 1884, when the British Counsul-General in Bangkok, Mr. Owen Gould, brought a pair of the cats back to Britain for his sister, Mrs. Veley (who went on to be co-founder of the Siamese Cat Club in 1901). The cats were shown at the Crystal Palace in 1885, and the following year another pair (with kittens) were imported by a Mrs. Vyvyan and her sister. A small number of cats were brought in over the next few years, and together these formed the base breeding pool for entire breed in Britain.

As a result of thousands of generations of selective breeding and the pressures of competition there are now actually two subbreeds of Siamese – the modern show Siamese, and the traditional or "apple-headed" Siamese. Modern show Siamese have been bred to be extremely elongated, with bodies slender to the point of emaciation, and a Y-shaped head

with an extremely long muzzle and extra-large "batwing" ears. The traditional Siamese are much sturdier, with a round head and ears more in proportion to their size. Siamese cats often have a kink in their tails, because the original breeders saw that as a unique feature of the breed. In recent years the kinked tail has been considered a "flaw" and breeders have largely eradicated it from the Show Siamese. Both breeds of Siamese have almond-shaped eyes and like all Oriental cats they are extremely talkative and demanding of attention. They often will engage themselves in crazy antics to get the attention of their people, and often attach themselves to one human in a household. As they are "wired for sound", they can meow loud enough to compete with fire and rescue equipment. Siamese cats are generally believed to be highly intelligent (by cat standards), and their behaviour usually reflects this.

All Siamese have a creamy base coat with coloured "[points](#)" on their muzzles, ears, paws and lower legs, and tails. The darker Siamese have a darkening of their back and hindquarters as well. Originally Siamese were all seal-pointed, but now they have been bred in all of the standard cat colours including red, lilac, blue, chocolate, [tabby](#) and "torty" or tortoise-shell. In the United Kingdom, all pointed Siamese-style cats are considered to be part of the Siamese breed. In the United States, however, only four colorations are considered Siamese: seal point, blue point, chocolate point, and lilac point. [Oriental](#) cats with colorpoints in colors or patterns aside from these four are considered [Colorpoint Shorthairs](#) in the American cat fancy.

The dark coloration on the coat is produced by an enzyme that is heat-sensitive; it fails to work at normal body temperatures, but becomes active in cooler areas of the skin (such as the ears, legs, tail and face (which is cooled by the passage of air through the sinuses). All Siamese kittens, although pure cream or white at birth, develop visible points in the first few months of life in colder parts of their body. By the time the kitten is four weeks old the points should be clearly distinguishable enough to recognise which colour they will be.

Many Siamese are cross-eyed to compensate for the abnormal uncrossed wiring of the optic chiasm, which is produced by the same albino allele that produces coloured points.

Siamese cats crossed with Burmese cats are known as "[Tonkinese](#)".

Siamese cats crossed with [Bengal cats](#) are known as Serengetis. The [Serengeti](#) is a new breed of spotted cat.

## Variations

- [Balinese](#) – a longhaired Siamese in the four traditional U.S. Siamese coat colors of seal point, chocolate point, lilac point, and blue point.
- [Colorpoint Shorthair](#) – a Siamese with pointed coat colors aside from the traditional U.S. Siamese coat colors. Considered to be part of the Siamese breed in the U.K., but considered a separate breed in the U.S. Variations can include Lynx Points and Tortie Points.
- [Javanese](#) – a longhaired version of the [Colorpoint Shorthair](#).
- [Oriental Shorthair](#) – a Siamese-style cat in non-pointed coat patterns and colors, including solid, tabby, and tortoise-shell.
- [Oriental Longhair](#) – a longhaired version of the [Oriental Shorthair](#).

## Famous Siamese cats

Bucky Katt from Get Fuzzy  
 Genghis - Growltiger's enemy in Old Possum's Book of Practical Cats by T. S. Eliot  
 Jason - Seal-point on BBC TV's Blue Peter  
 Misty Malarky Yin Yang, pet of Amy Carter  
 Pyewacket, the witch's familiar in the film Bell, Book and Candle  
 Tao, from Sheila Burnford's novel The Incredible Journey  
 Sagwa in the children's book Sagwa, the Chinese Siamese Cat by Amy Tan and animated TV series of the same name  
 Shan Shein - White House cat owned by Gerald Ford's daughter, Susan Si and Am from Lady and the Tramp Syn, who played the title role of "D.C." in the 1965 Walt Disney film That Darn Cat!

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## Colorpoint Shorthair

The **Colorpoint Shorthair** is a variant of the [Siamese cat](#). It features the same long, tubular body, large ears, and triangular, wedge-shaped head as the modern Siamese. However, the coat comes in a wider variety of "point" colors and patterns than do the traditional Siamese.

Possible coat colors and patterns include red point (also called flame point), cream point, lynx points (points featuring a tabby pattern; can be in a variety of colors), and tortie-points (points featuring a tortoise-shell, or calico, pattern; can be in a variety of colors). Non-pointed coat colorations are considered part of the [Oriental Shorthair](#) breed.

In the United Kingdom, the colorpoint shorthair is not considered a separate [breed](#) from the Siamese, and are shown in [cat shows](#) as Siamese. In the United States, the colorpoint shorthair is considered a separate breed.

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## Siberian

### Country of origin

Russia

### Breed standards (external links)

[ACFA](#), [CFA](#), [TICA](#), [ACE](#), [FIFe](#)

The **Siberian** is a recognized [breed](#) of [cat](#). Siberians are strong and powerfully built, with well proportioned characteristics. They are generally intelligent, playful, affectionate and loyal. Their fur is plush, without the tendency to mat, and some claim that it is hypoallergenic. (There is currently a study underway, commissioned at the University of California (at Davis) to find out about this claim.)

Siberian Cats are known to be exceptionally high jumpers.

Siberian Forest Cats: <http://home.comcast.net/~actrose/>  
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## Singapura

A young Singapura male

A Singapura

### Alternate Names

The Drain Cat, Kucinta

### Country of origin

Singapore

### Breed standards (external links)

[ACFA](#), [CFA](#) [GCCF](#) [TICA](#)

The **Singapura** is a recognized [breed](#) of [cat](#).

These excerpts are from the UK Singapura Cat Club.

"The Singapura is an alert, healthy, medium sized cat of foreign type. The body has good bone structure and is moderately stocky and muscular, yet gives an impression of great elegance. Females are usually smaller than the males, but still feel heavier than they look. The strong slender legs taper to small oval feet. The tail should be slender but not whippy, and should have a blunt tip. Body colour is an old or golden ivory with a soft warm effect, ticked with sepia brown. Each hair has at least two bands of sepia brown ticking, separated by light bands — light next to skin, and dark tip. Muzzle, chest, stomach and inner legs are an unticked light ivory colour. Singapuras should have some barring on their inner front legs and back knees. The coat is short, fine, silky, and close-lying.

The breed has noticeably large eyes and ears. Eyes are large, set not less than an eye width apart, held wide open, but showing slant when closed or partially closed. A dark

outline to the eyes is desirable. Eye colour hazel, green or yellow only. Ears are large, wide open at base, and deep cupped. The outer line of the ears extends upwards to an angle slightly wide of parallel. The head is gently rounded with a definite whisker break and a medium short, broad muzzle with a blunt nose. In profile, the Singapura has a rounded skull with a slight stop just below eye level. There must be evidence of dark pigment outline on the nose. 'Cheetah' lines from the inner corner of the eye towards just behind the whisker pad should be present.

The original home of the Singapura is the island of Singapore, with the breed taking its name from the local Malay name for the island — meaning 'Lion City'. The breed is the result of Mother Nature's combination of genes indigenous to Southeast Asia — both the brown as in [Siamese](#) and [Burmese](#) and the agouti or ticked pattern. The area is the highest epicentre for the agouti gene, according to geneticist, Neal Todd, who has published articles on the migration of feline genes. This breed is the same colour as seal point cats or brown Burmese, but the difference is the agouti coat pattern and how it interacts with the sepia brown."

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## Snowshoe

The **Snowshoe** is a [breed](#) of [cat](#). The first Snowshoes appeared in the 1960s, as a result of cross-breeding a [Siamese](#) and an [American Shorthair](#).

The ears are large, with a triangular head that usually has black markings. The eyes are blue. The coat is short-haired and is white and gray. The tail is medium-sized. There are several varieties, such as Blue-point, Fawn-point, Chocolate-point and Seal-point.

Known to be very sweet tempered, energetic, and well adaptable. Very social breed that needs more attention than most and cannot be left alone for long periods of time. This breed is best suited to the experienced cat owner.

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## Sokoke

### Alternative Names

Khadzonzos

## Country of origin

Kenya

## Breed standards (external links)

[CCA](#), [FIFe](#)

The **Sokoke** is a [breed](#) of [cat](#). The original name of the breed was Khadzonzo. The Khadzonzo cats were discovered in the Sokoke-Arabuke forest, on the Kenyan coast, by Jeni Slater in 1978. Gloria Moeldrop, a friend of Slater's, brought some of the cats home with her to Denmark to breed. In 1990, she imported more cats from Kenya to strengthen the breeding stock. The cats were first shown in Copenhagen in 1995. The breed was officially recognized by the [FIFe](#) in 1993, with the name changed to Sokoke, after where they came from.

Sokokes have blotched [tabby](#) coats in shades of brown, with amber to light green eyes. Their coats are short and coarse, with little to no undercoat. Their bodies are long and thin, with long legs. The back legs should be longer than the front legs, similar to an ocelot. Sokokes are very active and enjoy climbing and "talking" to their people.

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# Somali

A blue Somali

## Nicknames

Fox cat

## Country of origin

United States

## Breed standards (external links)

[CFA](#), [ACFA](#), [CCA](#), [TICA](#), [ACF](#), [FIFe](#)

The **Somali** is a long-haired [breed](#) of [cat](#). The breed appeared spontaneously in the 1950s from [Abyssinian](#) breeding programs when a number of Abyssinian kittens were born with bottle-brush tails and long fluffy coats. Abyssinians and Somalis share the same personality (active, intelligent, playful, curious) and appearance. The only difference between them is the fur length and therefore the amount of grooming required. Unlike most long-haired cats,

Somalis shed very little excess hair. Their coat is generally shed *en masse*, or "blown", once or twice a year, rather than constantly shedding like a [Persian](#) or other long-haired cat.

Somalis have a striking, bushy tail, which, combined with their ruddy coat, has earned them the nickname of "fox cats" in some circles. Their coats are ticked, which is a variation on [tabby](#) markings, and some Somalis may show full tabby stripes on portions of their bodies, but this is seen as a flaw, and tabby Somalis are only sold as neutered pets. The only tabby marking on a show Somali is the traditional tabby 'M' on the middle of the forehead. Like Abyssinians, they have a dark rim around their eyes that makes them look like they are wearing kohl, and they have a small amount of white on their muzzles and chins throats. White elsewhere on their bodies disqualifies them from show-status.

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## Sphynx

The **Sphynx** (aka **Canadian Hairless**) is a rare [breed](#) of [cat](#) with extremely little fur, or at most a short fuzz over its body, and no whiskers (vibrissae). Their skin is the color their fur would be, and all the usual cat marking patterns (solid, point, van, tabby, tortie, etc) may be found in Sphynx too. They are sometimes mistaken for Chihuahuas because of their extremely unusual and, some say, uncatlike appearance. They are very affectionate and extroverted and like to cuddle with their humans, other humans, and each other.

Delicate as they may appear, Sphynx tend to be well-muscled and robustly healthy, with a few obvious weaknesses. It is essential to keep a sphynx cat warm and free from drafts, especially during kittenhood, as they have no more protection from cold than a naked human would. Sphynxes are also prone to sunburn and sunstroke because they lack the normal protection of fur. They tend to get dirty and greasy, since their skin produces the same oils as a fully-furred cat, but the oil is not spread over fur as usual. As pets they are notably more social than "normal" cats, and happier to be handled, but also require more maintenance including weekly bathing and ear-cleaning. Their natural bathing habits tend to be ineffective on skin, so the owner must compensate a bit.

Sphynx cats are not hypoallergenic<sup>[1]</sup>, in fact they can be even worse for severely allergic people than furred cats. But because they don't deposit hair on furniture or clothing, they tend to be easier to clean up after, and therefore often less troublesome to mildly allergic owners. A large number of individuals allergic to cats can live with Sphynx cats without experiencing any form of allergy. Some notice symptoms but handle it by bathing and cleaning them slightly more often than one would otherwise. Allergic people often bathe and clean their Sphynx cats every 5 - 7 days, while others do it roughly every two weeks or when needed.

Although hairless cats have been reported throughout history (hairless cats seem to appear naturally about every 15 years or so), and breeders in Canada have been working on the Sphynx breed since the early 1960's, the current American and European Sphynx breed is descended from two lines of natural mutations:

- Dermis and Epidermis (1975) from the Pearsons of Wadena, MN, USA and

- Bambi, Punkie, and Paloma (1978) found in Toronto, ON, Canada and raised by Shirley Smith.

The Sphynx breed is known for a sturdy, heavy body, a wedge-shaped head, and an alert, friendly temperament. A cat being hairless is not necessarily a Sphynx! Other hairless breeds might have different body shapes or temperaments than those described above. There are, for example, new hairless breeds, including the [Don Sphynx](#) and the [Peterbald](#) from Russia, which arose from their own spontaneous mutations. The standard for the Sphynx differs between TICA and FIFE.

Sphynx hairlessness is produced by an allele of the same gene that produces the [Devon Rex](#), which has only one of the usual two fur coats. The Sphynx allele is incompletely dominant over the Devon allele; both are recessive to the wild type. Sphynx were at one time crossbred with Devon Rex in an attempt to strengthen this gene, but unfortunately this led to serious dental or nervous-system problems and is now forbidden in most breed standards associations. The only allowable outcross breeds in the [CFA](#) are now the [American Shorthair](#) and [Domestic Shorthair](#). Other associations have different rules. In Europe mainly Devon Rex has been used for outcrosses.

A well-known Sphynx is SGC Belfry Ted Nude-Gent who is in the Austin Powers movies. He plays the part of Mr. Bigglesworth, Dr. Evil's cat.

A Sphynx was to star in Harry Potter, but the scene was cut due to time constraints.

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## Sterling

The **Sterling cat** is a silver long-haired [chinchilla cat](#), similar to a [Persian](#) but without its shortened face. Sterlings have large green eyes with a black ring around them and sparkling white fur. The breed is based on the concept of Britain's pure chinchilla longhairs, a documented breed of English origin (In Britain, cat fancies call Persians "Longhairs", "Persian Longhairs", "Chinchilla Longhairs" etc; these equate to the North American "Persian").

The [breed](#) was accepted by the International Cat Association as NBC in the early 1990s and International Cat Exhibitors followed through to bringing the breed to Championship status. Also, International Best New Breed was achieved in consecutive years in the late 1990s.

Presently, the breed maintains its own registry under International Sterling Society. Over twenty years went into this breed, including international support.

In the early 1990s, a letter of support was written by Dr. John Saidla, D.V.M. of Cornell University Feline Health Center, after a formal presentation was made to Dr. Drew Noden, DVM, Dr. Jim Richards, DVM and Dr. Fred Scott, DVM, along with genetic concept. Further documentation came forth after research at GCCF archives, during one of several visits to England.

Some confusion arises because colorbred, silver Persians are utilized as part of the breed in early F1-F3 matings. Once a litter is registered Sterling it remains Sterling. Imports are involved to enhance the breed.

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# Tonkinese

## Common nickname

Tonk

## Country of origin

Canada

## Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [CCA](#), [ACF](#)

**Tonkinese** are a medium-sized short-haired [cat breed](#) distinguished by [points](#) as with [Siamese](#) and [Himalayans](#). They are commonly referred to as 'Tonks'. As with many cat breeds, the exact history of the Tonkinese varies to some degree depending on the historian.

Tonkinese cats are a recent cross between the [Siamese](#) and [Burmese](#) cat breeds, although some assert that Tonkinese-like cats have existed since at least the early 1800s. Some claim that the appearance of the breed is closer to the original appearance of the Siamese, before Siamese breeders developed today's triangular head and very leggy body. The name is not related to the Tonkin region of Indochina, being a 'back formation' from the names of the ancestral breeds.

Tonkinese cats are commonly trim and muscular cats. They are usually intelligent, curious, affectionate with people, and interested in them. Tonks are playful cats, but not hyperactive. Some interesting toys and a cat tree, or, better yet, another Tonkinese, will keep them occupied when you're not around. Unlike most varieties of cat, they are reported to sometimes, or even often, engage in fetching.

They are more like Burmese in temperament than Siamese, that is, less high-strung and demanding. Their voices are also less piercing (or raucous, depending on taste) in most cases than the Siamese, but most Tonks do like a good chat. Most observers feel they combine the more attractive features of both ancestor breeds.

Tonks exhibit a wide variety of coat colors and patterns. The three main patterns are natural, mink, and point. The mink variety is most desirable for show. The most commonly accepted colors are: lilac (platinum), champagne, blue, and natural (brown). Typically, natural patterned cats have gold or green eyes, cats with the point pattern are blue-eyed, and

the mink cats have a shade of aquamarine. A great deal of subtle variation exists in colors and patterns, and Tonkinese coat colors change with age.

Breeding two Tonkinese cats does not necessarily yield a full litter of show quality Tonkinese kittens - the colorations do not breed true to type in about half of all otherwise purebred kittens. Those kittens that don't fit the standards perfectly are usually sold as pets, and for less money, but they still have that same Tonkinese charm and personality. The genetics of the coat coloring and its interaction with eye coloring is complex and fascinating, though perhaps not the main attraction for Tonk fans.

## References

Susie Page; *The Complete Cat Owner's Manual*; Fog City Press; ISBN 1-875137-84X (hardback, 1997)

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## Toyger

The **Toyger** is a breed of striped domestic [cat](#).

The Toyger is descended from [Bengal cat](#) stock crossed with domestic cats. The aim of this cross was to produce a striped 'toy tiger'. It was recognised for 'Registration only' by the International Cat Association in the early 1990s. There are several breeders in the United States and one breeder in the UK working to develop the breed.

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## Turkish Angora

An odd-eyed Turkish Angora

### Alternative name

Ankara Cat

### Country of origin

Turkey

### Breed standards (external links)

[ACFA](#), [CFA](#), [CCA](#), [TICA](#), FIFe

The **Turkish Angora** (Turkish: **Ankara Kedisi**) is a [breed](#) of domestic [cat](#). Turkish Angoras are one of the ancient, naturally-occurring cat breeds, having originated in central Turkey, in the Ankara region.

## Physical characteristics

They mostly have a white, silky, medium-long length coat, no undercoat and fine bone structure. There seems to be a connection between Ankara Cats and [Persians](#) (see below), and the Turkish Angora is also a distant cousin of the Turkish Van. Although they are known for their shimmery white coat, currently there are more than twenty varieties including black, blue, reddish fur. They come in tabby and tabby and white, along with smoke varieties, and are in every color other than pointed, lavender, and cinnamon (all of which would indicate breeding to an outcross).

Eyes may be blue, green or amber, but it is often a combination of one blue and one amber. The W gene responsible for white coat and blue eye is closely related to the their hearing ability, and presence of a blue eye can indicate the cat is deaf to the side the blue eye is located. However, a great many blue and odd-eyed whites have normal hearing, and even deaf cats lead a very normal, if indoor, life.

Ears are sharp and relatively bigger, head is long and wide. Another characteristic is the tail, which is kept parallel to the back.

## Behavioral Characteristics

Turkish Angora is an intelligent, adorable and very curious breed, very active throughout their life-span. Angoras love to bathe with their owners (another link to the cousin [Turkish Van cat](#), which is known as "the swimming cat"). They also tend to bond with their owners and try to be the center of attention, often doing their part in conversations. They usually don't like to be held for long, but like to stay in human presence, happily playing for hours.

Turkish Angoras are also very fond of high places, such as the tops of doors and bookshelves. Owners of Turkish Angoras should be careful to avoid letting electrical wires dangle out in the open. The Angora will chew them with their exceptionally sharp teeth. Turkish Angoras are also known to run the household by supervising every activity of their owner.

## History

Like many domestic cats, it is likely that Turkish Angora descended from the African wildcat and led the way to Persian cats. The mountainous regions of Turkey allowed for confinement of the long haired breeds like Turkish Van Cat and Turkish Angora, and it is reported by French biologist de Buffon that long-furred cats have originated in Asia Minor.

Longhaired cats were imported to Britain and France from Turkey, Persia and Russia as early as the late 1500s, though there are indications that they appeared in Europe as early as 1300s due to the Crusades. The Angora cat was recognized as a distinct breed in Europe by the early 1600s. Attempts to breed them outside Turkey yielded little success. One theory

speaks about the strong negative electrical fields dominant in Central Anatolia, especially in Ankara.

In the early 1900s, the government of Turkey in conjunction with the Ankara Zoo began a meticulous breeding program to protect and preserve the pure white Angora cats with blue and amber eyes, a program that continues today. The zoo particularly prized the odd-eyed Angoras (cats with eyes of differing colors). Prophet Muhammad's Angora, Muezza, was reputed to be an odd-eyed cat. The Zoo has its own cat facility which houses both the Van cat as well as the Angora cat. According to Dr. Can Ersoy, a biologist working at the zoo, the Van cat is about to become extinct, but there is a great deal of work being done in eastern Turkey to try and stop this. At the zoo, the Angora cat is kept under strict supervision, and kittens are sold only to people who can provide them with a good home environment.

The Angora cat, which was brought to the United States in 1955, was accepted for pedigree. Most longhaired cats are descended from the Angora, and the Persian is the result of selective breeding with Angora cats. In 1970, the CFA was the first U.S. registry to accept the Turkish Angora for registration. In 1973, the CFA accepted the Angora for Championship, but until 1978 only pure white Angoras were registrable. Today, all North American registries accept the Turkish Angora. While numbers are still small, the gene pool is growing, with the registration totals gaining ground each year.

## Turkish Van

Immature male red tabby Turkish Van

### Common Nickname

Van, Swimming Cat

### Country of origin

Turkey

### Breed standards (external links)

[CFA](#), [ACFA](#), [TICA](#), [ACE](#), [GCCE](#), FIFE

### Notes

Occurs naturally in the Lake Van

region of Turkey

The **Turkish Van** (Turkish: **Van Kedisi**) (also known as the Turkish Swimming Cat) is a rare, naturally occurring [breed](#) of [cat](#) originally found in the Lake Van region of southeastern Turkey. The word *van* refers to their color pattern, where the color is restricted to the head and the tail, and the rest of the cat is white. It is the maximum expression of the piebald white spotting gene that makes the van pattern. A chart of the effects of the gene can be seen [here](#). The spotting gene appears in many different species (like the horse and ball python). It also shows up in the common house cat, so a cat that shows this color pattern but is not registered or from the Van region, is called a "Vanalike".

## Characteristics

The coat on a Van is considered semi-longhaired. While many cats have three distinct hair types in their coat, guard hairs, awn hairs and down hairs, the Turkish Van only has one. This makes their coat feel like cashmere or rabbit fur, and the coat dries quickly when wet. Lake Van is a region of temperature extremes and the cats have evolved a coat that grows thick in the winter with a large ruff and bottlebrush tail for the harsh winters and then sheds out short in the body for the warm summers. The full tail is kept year round.

The Van is one of the larger cat breeds. The males can reach 20 lb (9 kg) and the females weigh about half of that. They have massive paws and rippling hard muscle structure which allows them to be very strong jumpers. Vans can easily hit the top of a refrigerator from a cold start on the floor. They are slow to mature and this process can take 3-5 years. Also, their fetching skills are quite good and they are quick to learn.

Another interesting trait is their fascination with water (rare among cats). Vans are also called the "Swimming Cats" since they have been known to take a dip in Lake Van in their native country. They may have acquired this trait due to the very hot summers and have extremely waterproof coats that make bathing them a challenge. Most Vans in the US are indoor cats and do not have access to large bodies of water but their love and curiosity of water stays with them. Instead of swimming they stir their water bowls and invent fishing games in the toilet.

## Breed standards

Breed standards allow for one or more body spots as long as there is no more than 20% color and the cat does not give the appearance of a bicolor. Although red tabby and white is the classic van color, the color on a van's head and tail can be one of the following: Red, Cream, Black, Blue, Red Tabby, Cream Tabby, Brown Tabby, Blue Tabby, [Tortoiseshell](#), Dilute Tortoise, Brown Patched Tabby, Blue patched Tabby and any other color not showing evidence of hybridization with the pointed cats. ([Siamese](#), [Himalayan](#) etc...)

## Preservation

Turkish Vans are a naturally occurring breed of cat. They can still be found in east Turkey, near Lake Van. Their numbers have diminished, but both the Vans and the [Turkish Angora](#), (which is a separate breed with different characteristics from central Turkey) are under the

protection of the Turkish government and are bred at the Ankara Zoo. The genetic traits of the cats have not been modified from their originals and breeding programs seek to preserve their unique combination of athleticism and loyalty.

Vans are sometimes confused with Turkish Angoras, although a side-by-side comparison reveals vastly different characteristics. Angoras are named after Ankara (Angora) and descended separately from the Vans. Angoras also carry the W gene associated with white fur, blue eyes and deafness while Vans do not. Van eye color can be amber, blue or odd (one each, amber and blue) but Vans with two blue eyes are not deaf like Angoras.

## Origins

Turkish Vans have been living in their native Turkey for thousands of years and various references to "white ringtail" cats through history show this. The classic red tabby and white pattern gives the ringtail appearance and has been found depicted on Hittite jewelry of antiquity. Also, archeologists have found "...relics of an ancient battle during the occupation of Armenia by the Romans included armor and banners displaying an image of a large white cat with rings on its tail." (From [The Van Kedi Turkey's Swimming Cat](#))

In 1955 two British women, Laura Lushington and Sonia Halliday, saw Vans in Turkey for the first time and decided to bring them home. They immediately bred true, confirming they are a true natural breed. A quote from Laura Lushington from the *Complete Cat Encyclopedia*, edited by Grace Pond and published in 1972:

"One of the two accepted breeds in Turkey, the Van Cat is now known in Britain as the Turkish Cat. Originating in the Lake Van area of southeastern Turkey, these cats have been domesticated for centuries (in fact for as long as the famous Saluki Hound); they are much loved and prized by the Turks for their exceptional character and unique colouring. Apart from their great capacity for affection and alert intelligence, their outstanding characteristic is their liking for water, not normally regarded as a feline attribute. They not only dabble in water and play with it, but have been known to enter ponds and even horse-troughs for a swim – they soon became famous as the 'swimming cats.' I was first given a pair of Van kittens in 1955 while traveling in Turkey, and decided to bring them back to England, although touring by car and mainly camping at the time – the fact that they survived in good condition showed up the great adaptability and intelligence of their breed in trying circumstances. Experience showed that they bred absolutely true. They were not known in Britain at that time and, because they make such intelligent and charming pets, I decided to try to establish the breed, and to have it recognized officially in Britain by the GCCF."

The first Vans were brought to the United States in 1982 and accepted into championship for showing in the Cat Fanciers' Association (CFA) in 1994. Since then, CFA has registered approximately 100 Vans born each year in the US, making them one of the rarest cat breeds. However, the gene pool thrives because it still uses Vans imported from Turkey. Imported Vans have no human breeding intervention and are quite robust.

## Vans as pets

Turkish Vans are fabulously intelligent, and will easily take over their home and owners. Vans are people cats that want to be with people wherever they go. They love to play and jump and explore anything in their reach, which is quite large. They are energetic; they play hard and sleep hard. Many Vans are dedicated to fetching their particular object of interest, and many owners describe them as "dogs in a cat suit" because of their unusual personalities.

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## York Chocolate Cat

### Country of origin

United States

### Breed standards (external links)

[Gorki](#), [CentralPets](#), [Catworld](#), [CCA](#), [Furry Critter Network](#)

The **York Chocolate cat** is a new American [breed](#) of [show cat](#), with a long, fluffy coat and a plumed tail. The first part of its name is taken from New York state, where it was bred in 1983. This breed was created by colour-selecting [domestic longhaired cats](#), and as the name suggests, all members of this breed are solid chocolate or lavender, solid chocolate and white, or lavender and white (*see [bicolor cat](#)*). The breed is not yet widely recognized by breeders and the Cat Fanciers' Association.

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## Cat Anatomy

**Cat anatomy** is a branch of comparative vertebrate anatomy. Cat anatomy is especially helpful to the veterinarian surgeons, and also to the human surgeons, because of the cat's similarity with humans.

see also:

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## Pectoral Muscles

There are four **pectoral muscles** in the cat: pectoantibranchialis, pectoralis major, pectoralis minor, and xiphiumeralis.

### Pectoantibranchialis

Pectoantibrachialis muscle is just one-half inch wide, and is the most superficial in the pectoral muscles. Origin, manubrium of the sternum, Insertion, in a flat tendon on the fascia of the proximal end of the ulna, Action, draws the arm towards the chest.

## Pectoralis major

The pectoralis major, also called, pectoralis superficialis, is a broad triangular portion of the pectoralis muscle which is immediately below the pectoantibrachialis. Origin, sternum and median ventral raphe, Insertion, Humerus, Action, draws the arm towards the chest.

## Pectoralis minor

The pectoralis minor muscle is a much larger than the Pectoralis major, and is divided into several parts. However, most of its anterior border is covered by the pectoralis major. Origin, Sternum, Insertion, Humerus, Action, draws the arms towards the chest.

## Xiphihumeralis

The most posterior, flat, thin, and long strip of pectoral muscle is the Xiphihumeralis. It is a band of parallel fibers. Origin, xiphoid process of the sternum, Insertion, proximal end of the humerus, Action, draws the arms towards the chest.

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# Accessory Muscles of the Scapula

There are only three **accessory muscles of the scapula**, and these are the Levator Scapulae Ventralis, Teres Major, and the Teres Minor.

## Levator Scapulae Ventralis

This is a flat, band-like muscle lying on each side of the neck, just between the [clavotrapezius](#) and [acromiotrapezius](#) muscles.

## Teres Major

The Teres Major is the stout muscle just below the infraspinatus muscle. Origin, axillary border of the scapula, Insertion, medial surface of the humerus, Action, rotates the humerus inward and lowers it.

## Teres Minor

The Teres Minor is situated just under the infraspinatus muscle. It is triangular-shaped. Origin, axillary border of the scapula, Insertion, greater tuberosity of the humerus, Action, assists the infraspinatus to rotate the humerus.

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## Latissimus Dorsi

The **Latissimus dorsi** is the large, flat, dorso-lateral muscle on the trunk, posterior to the arm, and partly covered by the spinotrapezius on its median dorsal region.

The Latissimus dorsi is a triangular, flat muscle, which covers the lumbar region and the lower half of the thoracic region, and is gradually contracted into a narrow fasciculus at its insertion into the humerus. It arises by tendinous fibers from the spinous processes of the lower six thoracic vertebræ and from the posterior layer of the lumbodorsal fascia, by which it is attached to the spines of the lumbar and sacral vertebræ, to the supraspinal ligament, and to the posterior part of the crest of the ilium. It also arises by muscular fibers from the external lip of the crest of the ilium lateral to the margin of the [Sacrospinalis](#), and from the three or four lower ribs by fleshy digitations, which are interposed between similar processes of the Obliquus abdominis externus. From this extensive origin the fibers pass in different directions, the upper ones horizontally, the middle obliquely upward, and the lower vertically upward, so as to converge and form a thick fasciculus, which crosses the inferior angle of the scapula, and usually receives a few fibers from it. The muscle curves around the lower border of the Teres major, and is twisted upon itself, so that the superior fibers become at first posterior and then inferior, and the vertical fibers at first anterior and then superior. It ends in a quadrilateral tendon, about 7 cm. long, which passes in front of the tendon of the Teres major, and is inserted into the bottom of the intertubercular groove of the humerus; its insertion extends higher on the humerus than that of the tendon of the Pectoralis major. The lower border of its tendon is united with that of the Teres major, the surfaces of the two being separated near their insertions by a bursa; another bursa is sometimes interposed between the muscle and the inferior angle of the scapula. The tendon of the muscle gives off an expansion to the deep fascia of the arm.

Variations.—The number of dorsal vertebræ to which it is attached vary from four to seven or eight; the number of costal attachments varies; muscle fibers may or may not reach the crest of the ilium.

A muscular slip, the axillary arch, varying from 7 to 10 cm. in length, and from 5 to 15 mm. in breadth, occasionally springs from the upper edge of the Latissimus dorsi about the middle of the posterior fold of the axilla, and crosses the axilla in front of the axillary vessels and nerves, to join the under surface of the tendon of the Pectoralis major, the Coracobrachialis, or the fascia over the Biceps brachii. This axillary arch crosses the axillary artery, just above the spot usually selected for the application of a ligature, and may mislead the surgeon during the operation. It is present in about 7 per cent. of subjects and may be easily recognized by the transverse direction of its fibers.

A fibrous slip usually passes from the lower border of the tendon of the Latissimus dorsi, near its insertion, to the long head of the Triceps brachii. This is occasionally muscular, and is the representative of the Dorsoepitrochlearis brachii of apes.

The lateral margin of the Latissimus dorsi is separated below from the Obliquus externus abdominis by a small triangular interval, the lumbar triangle of Petit, the base of which is formed by the iliac crest, and its floor by the Obliquus internus abdominis. Another triangle is situated behind the scapula. It is bounded above by the [Trapezius](#), below by the Latissimus dorsi, and laterally by the vertebral border of the scapula; the floor is partly formed by the Rhomboideus major. If the scapula be drawn forward by folding the arms across the chest, and the trunk bent forward, parts of the sixth and seventh ribs and the interspace between them become subcutaneous and available for auscultation. The space is therefore known as the triangle of auscultation.

**Nerves.**—The Trapezius is supplied by the accessory nerve, and by branches from the third and fourth cervical nerves; the Latissimus dorsi by the sixth, seventh, and eighth cervical nerves through the thoracodorsal (long subscapular) nerve.

## Training

To increase the power of this muscle, the muscle can be trained with the following exercises:

- Pullup
- Pullover
- Pulldown

*This article was originally based on an entry from a public domain edition of Gray's Anatomy. As such, some of the information contained herein may be outdated. Please edit the article if this is the case, and feel free to remove this notice when it is no longer relevant.*

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# Deltoid Muscles

The **deltoid muscles** are just lateral to the [Trapezius muscles](#). Anatomically, there are only two deltoids in the cat, and that is the Acromiodeltoid, and the Spinodeltoid. However, the Clavobrachialis, is now also considered as a deltoid, so as to conform to Human Anatomy standards. It is therefore called Clavodeltoid.

## Acromiodeltoid

It is the shortest Deltoid muscle. It lies lateral to the clavodeltoid, and in a more husky cat, this can only be seen by lifting the clavodeltoid. Origin, Acromion process, Insertion, deltoid ridge, Action, Raises and Rotates the humerus outward

## Spinodeltoid

A stout and short muscle lying posterior to the acromiodeltoid. It lies along the lower border of the scapula, and it passes through the upper arm, across the upper end of muscles of the upper arm. Origin, spine of the scapula, Insertion, deltoid ridge, Action, raises and rotates the humerus outward.

## Clavodeltoid (Clavobranchialis; Cleidobranchialis)

The clavodeltoids are the branchial (arm) continuation of the clavotrapezius. It is the muscle on the anterior surface of the shoulder and anterior to the [pectoantibranchialis](#). The clavotrapezius and the clavodeltoid (clavobranchialis) are sometimes considered by anatomists as consisting one muscle, which si the cephalobranchial (literally, head to arm). The clavicle is embedded under this muscle. Origin, Clavicle and Fibers of the Clavotrapezius, Insertion, Ulna, Action, flexor of the forearm.

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## Multifidus Spinae

**Multifidus spinae** is a median, slender, narrow muscle, fused inseparably with the vertebral column. Its origin is the transverse processes of the vertebral column and it inserts into the spinous process of the vertebrae. When in action, it extends the vertebral column.

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## Sacrospinalis

### *Sacrospinalis muscle*

Deep muscles of the back.

**Sacrospinalis** is a very thick, lateral portion of an epaxial muscle in mammals which continues anteriorly up to the neck and divides into three muscles: semispinalis, longissimus, and iliocostalis. Its origin is on the spines of the last four thoracic vertebrae, and its insertion is on both the spines of the most craniad thoracic vertebrae and the cervical vertebrae. Its action is to extend the vertebral column.

## Semispinalis

The semispinalis is the muscle immediately lateral to the [multifidus spinae](#) and is the most medial of all three. It consists of diagonal fibers.

## Longissimus

The longissimus is the muscle lateral to the semispinalis. It is the longest subdivision of the sacrospinalis that extends forward into the transverse processes of the posterior cervical vertebrae.

## Iliocostalis

The iliocostalis is the muscle immediately lateral to the longissimus that is the nearest to the furrow that separates the epaxial muscles from the hypaxial. It lies very deep to the fleshy portion of the serratus ventralis.

## Details From Gray's Anatomy

The Sacrospinalis (Erector spinae), and its prolongations in the thoracic and cervical regions, lie in the groove on the side of the vertebral column. They are covered in the lumbar and thoracic regions by the lumbodorsal fascia, and in the cervical region by the nuchal fascia. This large muscular and tendinous mass varies in size and structure at different parts of the vertebral column. In the sacral region it is narrow and pointed, and at its origin chiefly tendinous in structure. In the lumbar region it is larger, and forms a thick fleshy mass which, on being followed upward, is subdivided into three columns; these gradually diminish in size as they ascend to be inserted into the vertebrae and ribs.

The Sacrospinalis arises from the anterior surface of a broad and thick tendon, which is attached to the medial crest of the sacrum, to the spinous processes of the lumbar and the eleventh and twelfth thoracic vertebrae, and the supraspinal ligament, to the back part of the inner lip of the iliac crests and to the lateral crests of the sacrum, where it blends with the sacrotuberous and posterior sacroiliac ligaments. Some of its fibers are continuous with the fibers of origin of the Glutaeus maximus. The muscular fibers form a large fleshy mass which splits, in the upper lumbar region into three columns, viz., a lateral, the Iliocostalis, an intermediate, the Longissimus, and a medial, the Spinalis. Each of these consists from below upward, of three parts, as follows:

### Lateral Column Intermediate Column Medial Column

Iliocostalis	Longissimus	Spinalis
I. lumborum	L. dorsi	S. dorsi
I. dorsi	L. cervicis	S. cervicis
I. cervicis	L. capitis	S. capitis

## Iliocostalis

The **Iliocostalis lumborum** (Iliocostalis muscle; Sacrolumbalis muscle) is inserted, by six or seven flattened tendons, into the inferior borders of the angles of the lower six or seven ribs.

The **Iliocostalis dorsi** (Musculus accessorius) arises by flattened tendons from the upper borders of the angles of the lower six ribs medial to the tendons of insertion of the Iliocostalis

lumborum; these become muscular, and are inserted into the upper borders of the angles of the upper six ribs and into the back of the transverse process of the seventh cervical vertebra.

The **Iliocostalis cervicis** (*Cervicalis ascendens*) arises from the angles of the third, fourth, fifth, and sixth ribs, and is inserted into the posterior tubercles of the transverse processes of the fourth, fifth, and sixth cervical vertebræ.

## Longissimus

The **Longissimus dorsi** is the intermediate and largest of the continuations of the Sacrospinalis. In the lumbar region, where it is as yet blended with the Iliocostalis lumborum, some of its fibers are attached to the whole length of the posterior surfaces of the transverse processes and the accessory processes of the lumbar vertebræ, and to the anterior layer of the lumbodorsal fascia. In the thoracic region it is inserted, by rounded tendons, into the tips of the transverse processes of all the thoracic vertebræ, and by fleshy processes into the lower nine or ten ribs between their tubercles and angles.

The **Longissimus cervicis** (*Transversalis cervicis*), situated medial to the Longissimus dorsi, arises by long thin tendons from the summits of the transverse processes of the upper four or five thoracic vertebræ, and is inserted by similar tendons into the posterior tubercles of the transverse processes of the cervical vertebræ from the second to the sixth inclusive.

The **Longissimus capitis** (*Trachelomastoid muscle*) lies medial to the Longissimus cervicis, between it and the Semispinalis capitis. It arises by tendons from the transverse processes of the upper four or five thoracic vertebræ, and the articular processes of the lower three or four cervical vertebræ, and is inserted into the posterior margin of the mastoid process, beneath the *Splenius capitis* and *Sternocleidomastoideus*. It is almost always crossed by a tendinous intersection near its insertion.

## Spinalis

The **Spinalis dorsi**, the medial continuation of the Sacrospinalis, is scarcely separable as a distinct muscle. It is situated at the medial side of the Longissimusdorsi, and is intimately blended with it; it arises by three or four tendons from the spinous processes of the first two lumbar and the last two thoracic vertebræ: these, uniting, form a small muscle which is inserted by separate tendons into the spinous processes of the upper thoracic vertebræ, the number varying from four to eight. It is intimately united with the Semispinalis dorsi, situated beneath it.

The **Spinalis cervicis** (*Spinalis colli*) is an inconstant muscle, which arises from the lower part of the ligamentum nuchæ, the spinous process of the seventh cervical, and sometimes from the spinous processes of the first and second thoracic vertebræ, and is inserted into the spinous process of the axis, and occasionally into the spinous processes of the two vertebræ below it.

The **Spinalis capitis** (*Biventer cervicis*) is usually inseparably connected with the Semispinalis capitis.

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# Deeper Muscles of the Neck and Back

Deepeer muscles of the neck and back in the act includes the following: Rhomboideus, Rhomboideus Capitis, Splenius, Serratus Ventralis, Serratus Dorsalis, and the Intercostals.

## Rhomboideus

The Rhomboideus is a thick, large muscle below the [Trapezius muscles]. It extends from the vertebral border of the scapula to the mid-dorsal line. Origin, neural spines of the first four thoracic vertebrae, Insertion, vertebral border of the scapula, Action, draws the scapula to the dorsal.

## Rhomboideus capitis

Rhomboideus capitis is the most cranial of the deeper muscles. It is underneath the Clavotrapezius. Origin, superior nuchal line, Insertion, scapula, Action, draws the scapula to the head and rotates it.

## Splenius

Splenius is the most superficial of all the deep muscles. It is a thin, broad sheet of muscle underneath the Clavotrapezius and deflecting it. It is crossed also by the Rhomboideus capitis. Origin, mid-dorsal line of the neckand fasica, Insertion, seuperior nuchal line and atlas, Action, raises or turns the head.

## Serratus Ventralis

Serratus Ventralis is exposed by cutting the wing-like Latissimus Dorsi. The said muscle is covered entirely by adipose tissue. Origin, from the first nine or ten ribs, and from part of the cervical vertebrae. Insertion, vertebral border of the scapula, Action, draw scapula forward, backward and against the body.

## Serratus Dorsalis

Serratus Dorsalis is medial to both the scapula and the Serratus Ventralis. Origin, apoeurosis following the length of the mid-dorsal line, Insertion, dorsal portion of the last ribs, Action, draws ribs craniad

## Intercostals

The Intercostals is a set of muscles sandwiched between the ribs. They interconnect ribs, and are therefore, the primary respiratory skeletal muscles. It is divided into the External and the Internal subscapularis. Origin and Insertion, ribs, Action, Pull front or back the ribs.

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# Integumental Muscles

The two main integumentary muscles are the platysma and the cutaneous maximus. The cutaneous maximus covers the dorsal region of the cat and allows it to shake its skin. The platysma covers the neck and allows the cat to stretch the skin over the pectoralis major and deltoid muscles.

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# Abdominal Muscles

There are four **abdominal muscles** in the [cat](#), namely, External Oblique, Internal Oblique, Transversus abdominis, and the Rectus Abdominis.

## External Oblique

It is the large and outermost abdominal muscle you will first see in dissection. Its fibers are running obliquely downward, hence the name. It is covered anteriorly by the [Latissimus Dorsi](#). Origin, on the ribs and in the lumbodorsal fascia, Insertion, aponeurosis that passes through the linea alba, Action, constrictor of the abdomen.

## Internal Oblique

The Internal Oblique are just below the External Oblique. Origin, second sheet of the lumbodorsal fascia and the pelvic girdle. Insertion, linea alba, Action, compressor of the abdomen.

## Transversus Abdominis

This muscle is the innermost abdominal muscle. Origin, second sheet of the lumbodorsal fascia and the pelvic girdle. Insertion, linea alba, Action, compressor of the abdomen.

## Rectus Abdominis

To see this muscle, first remove the extensive aponeurosis situated on the ventral surface of the cat. Its fibers are extremely longitudinal, on each side of the linea alba. It is also traversed by the *inscriptiones tendinae*, or what others call myosepta.

## See also

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# Bordetella

Kingdom: Bacteria

Phylum: Proteobacteria

Class: Beta Proteobacteria

Order: Burkholderiales

Family: Alcaligenaceae

Genus: ***Bordetella***

Species

<i>B.</i>	<i>ansorpii</i>
<i>B.</i>	<i>avium</i>
<i>B.</i>	<i>bronchiseptica</i>
<i>B.</i>	<i>hinzii</i>
<i>B.</i>	<i>holmesii</i>
<i>B.</i>	<i>parapertussis</i>
<i>B.</i>	<i>pertussis</i>
<i>B.</i>	<i>petrii</i>
<i>B. trematum</i>	

***Bordetella*** is a genus of proteobacteria. The genus Bordetella contains species of related bacteria with similar morphology, size and staining reactions. To date there are 9 species known of Bordetella: *B. pertussis*, *B. parapertussis*, *B. bronchiseptica*, *B. avium* (formerly

designated *Alcaligenes faecalis*), *B. hinzii* (formerly designated *A. faecalis* type II), *B. holmesii*, *B. trematum*, *B. petrii* and *B. ansorpii*. Members of the species *B. pertussis* and occasionally *B. parapertussis* cause pertussis or whooping cough in humans. Several other species cause similar disease in other mammals, such as *B. bronchiseptica*, and in birds, such as *B. avium* and *B. hinzii*.

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## Cerebellar Hypoplasia

**Cerebellar hypoplasia** is a disorder found in [cats](#) and dogs in which the cerebellum is not completely mature at birth.

Usually symptoms of cerebellar hypoplasia can be seen immediately at birth in cats, but sometimes can take two months or so to become apparent in dogs. Cerebellar hypoplasia causes jerky movements, tremors and generally uncoordinated motion. The animal often falls down and has trouble walking. Tremors increase when the animal is excited and subside when at ease. There are several bacterial infections, such as herpes, or viral such as feline panleukopenia, that can result in the disorder in both cats and dogs. However, the disease can also be caused by malnutrition, poisoning, injury or general accidents during development in the fetus. The disease does not get better or worse with age, but the cat or dog can usually learn to somewhat compensate for it. Most afflicted animals can lead a fairly normal life if special considerations for the animal's disability are taken by the pet's owner.

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## Cheyletiellosis

**Cheyletiellosis** is a mild dermatitis caused by the Cheyletiella species of mites. It is also known as walking dandruff. Cheyletiella are large mites that live on the skin surface of dogs, [cats](#), rabbits, and humans. They do not burrow into the skin but live in the keratin level. Their entire 21 day life cycle is on one host. They cannot survive off the host for more than 10 days.

Cheyletiellosis is highly contagious. Transmission is by direct contact with an affected animal. Symptoms in animals vary from no signs to intense itching, scales on the skin, and hair loss. Symptoms in humans include multiple red, itchy bumps on the arms, trunk, and buttocks. Because humans are an irregular host for the mite, the symptoms usually go away in about three weeks.

Diagnosis is by finding the mites or eggs microscopically in a skin scraping or a combing. The most common treatment in animals is weekly use of some form of topical pesticide appropriate for the affected animal, often an anti-flea product. Fipronil works well. In unresponsive cases, ivermectin is used.

## Cheyletiella species

- *Cheyletiella yasguri* - infests dogs
- *Cheyletiella blakei* - infests cats
- *Cheyletiella parasitivorax* - infests rabbits

Each of these species can affect humans.

## References

Griffin, Craig E.; Miller, William H.; Scott, Danny W.(2001). *Small Animal Dermatology* (6th ed.). W.B. Saunders Company. ISBN 0-7216-7618-9

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# Corneal Ulcer

A **corneal ulcer** is an inflammatory condition of the cornea involving loss of its outer layer. It is very common in dogs and [cats](#). It is also known as **ulcerative keratitis**.

## Corneal anatomy of the dog and cat

The cornea is a transparent structure at the front of the eye. It refracts light and protects the contents of the eye. The cornea is about one-half to one millimeter thick in the dog and cat. The trigeminal nerve supplies the cornea via the long ciliary nerves. There are pain receptors in the outer layers and pressure receptors deeper.

Transparency is achieved through a lack of blood vessels, pigmentation, and keratin, and through the organization of the collagen fibers. The collagen fibers cross the full diameter of the cornea in a strictly parallel fashion and allow 99 percent of the light to pass through without scattering.

There are four important layers in the dog and cat cornea. The outer layer is the epithelium, which is 25 to 40 micrometers and five to seven cell layers thick. The epithelium holds the tear film in place and also prevents water from invading the cornea and disrupting the collagen fibers. This prevents corneal edema, which gives it a cloudy appearance. The epithelium sticks to the basement membrane, which also separates the epithelium from the stroma. The corneal stroma comprises 90 percent of the thickness of the cornea. It contains the collagen fibers organized into lamellae. The lamellae are in sheets which separate easily. Posterior to the stroma is Descemet's membrane, which is a basement membrane for the corneal endothelium. The endothelium is a single cell layer that separates the cornea from the aqueous humor.

## Corneal healing

An ulcer of the cornea heals by two methods: migration of surrounding epithelial cells followed by mitosis (dividing) of the cells, and introduction of blood vessels from the conjunctiva. Simple, small ulcers heal by the first method. However, larger or deeper ulcers

often require the presence of blood vessels to supply inflammatory cells. White blood cells and fibroblasts produce granulation tissue and then scar tissue, effectively healing the cornea.

## Superficial and deep corneal ulcers

Corneal ulcers are one of the most common eye diseases in dogs. They are caused by trauma, detergent burns, and infections. Other eye conditions can cause corneal ulcers, such as entropion, distichia, corneal dystrophy, and [keratoconjunctivitis sicca](#). Superficial ulcers involve a loss of part of the epithelium. Deep ulcers extend into or through the stroma and can result in severe scarring and corneal perforation. **Descemetocles** occur when the ulcer extends through the stroma. This type of ulcer is especially dangerous and can result in perforation. Corneal ulcers are painful due to nerve exposure, and can cause tearing, squinting, and pawing at the eye.

### Diagnosis

Diagnosis is through the use of fluorescein stain, which is taken up by exposed corneal stroma and appears green. With descemetocles, Descemet's membrane will bulge forward and after staining will appear as a dark circle with a green boundary, because it does not absorb the stain.

### Treatment

Treatment of corneal ulcers includes topical antibiotic therapy to prevent infection and pain medications, including topical atropine to stop spasms of the ciliary muscle. Superficial ulcers usually heal in less than a week. Deep ulcers and descemetocles may require corneal suturing, conjunctival grafts or conjunctival flaps, soft contact lenses, or corneal transplant. Topical corticosteroids should never be used on any type of corneal ulcer because they prevent healing and will often make them worse.

## Refractory corneal ulcers

Refractory corneal ulcers are superficial ulcers that heal poorly and tend to recur. They are also known as **indolent ulcers** or **Boxer ulcers**. They are caused by a defect in the basement membrane. They are recognized by undermined epithelium that surrounds the ulcer and easily peels back. Refractory corneal ulcers are most commonly seen in middle aged or older dogs and often occur in the other eye later. They are similar to Cogan's cystic dystrophy in humans.

### Treatment

Refractory corneal ulcers can take a long time to heal, sometimes months. Topical antibiotics are used continually to prevent infection. Pain medications are given as needed. Loose epithelium is removed with a dry cotton swab under topical anesthesia. This is in

order to allow production of normal basement membrane and division of normal epithelium. Often further treatment is necessary, such as a keratotomy, which is superficial cutting or piercing of the cornea. There are two main types used in dogs: multiple punctate keratotomy (MPK) and grid keratotomy (GK). MPK involves making small superficial punctures into the cornea with a needle. GK is more commonly used and involves making parallel and perpendicular scratches in the corneal surface. Usually only topical anesthesia is necessary. By scoring the corneal surface, anchoring points are provided for attachment of new epithelium. Of course, these procedures should only be performed by a veterinarian, particularly one with some experience in this treatment.

## Melting ulcers

Melting ulcers are a type of corneal ulcer involving progressive loss of stroma in a dissolving fashion. This is most commonly seen in *Pseudomonas* infection, but it can be caused by other types of bacteria or fungi. These infectious agents produce proteases and collagenases which break down the corneal stroma. Treatment includes antibiotics and collagenase inhibitors such as acetylcysteine and blood serum. Surgery may be necessary.

## Corneal ulcers in cats

Corneal ulcers in cats can be caused by trauma, detergent burns, infections, and other eye diseases. One common cause not seen in dogs is infection with feline herpesvirus-1 (FHV-1). FHV-1 causes ulceration by direct infection of the epithelial cells. Lesions appear as dendritic (branching) ulcers. FHV-1 also suppresses healing of the cornea. Symptoms include conjunctivitis, squinting, eye discharge, and blood vessels on the cornea. It can cause severe scarring. Treatment is with topical antiviral drugs.

## References

- Gelatt, Kirk N. (ed.)(1999). *Veterinary Ophthalmology* (3rd ed.). Lippincott, Williams & Wilkins. ISBN 0-683-30076-8

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## Coronavirus

Group: Group IV ((+ssRNA) Order: *Nidovirales* Family: *Coronaviridae* Genus: **Coronavirus**

**Coronavirus** is a genus of animal virus belonging to the family Coronaviridae. Coronaviruses are enveloped viruses with a positive-sense single-stranded RNA genome and a helical symmetry. The genomic size of coronaviruses ranges from approximately 16 to 30 kb. The name "coronavirus" draws reference to the "corona" -- the "ring-like radiating structure" formed by the outermost part of the atmosphere of the sun. When observed under

electron microscopy (E.M.), coronavirus particles exhibit a characteristic corona-like morphology. The corona-like structures are actually formed by the viral spike (S) peplomers, which are proteins that populate the surface of the virus and determine host tropism.

Proteins that contribute to the overall structure of all coronaviruses are the spike (S), envelope (E), membrane (M) and nucleocapsid (N). In the specific case of SARS (see below), a defined receptor-binding domain on S mediates the attachment of the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2).<sup>[1]</sup>

## Diseases of coronavirus

Coronaviruses primarily infect the upper respiratory and gastrointestinal tract. Four to five of total isolated strains of coronaviruses infect humans. The most publicized human coronavirus, SARS-CoV, has a unique pathogenesis because it causes both upper and lower respiratory tract infections and can also cause gastroenteritis. Coronaviruses are believed to cause a significant percentage of all common colds in human adults. Coronaviruses cause colds in humans primarily in the winter and early spring seasons. The significance of coronaviruses as causative agents is hard to assess because, unlike rhinoviruses (another common cold virus), coronaviruses are difficult to grow in the laboratory.

Coronaviruses also cause a range of diseases in farm animals and domesticated pets, some of which can be serious and are a threat to the farming industry. Economically significant coronaviruses of farm animals include porcine coronavirus (transmissible gastroenteritis, TGE) and bovine coronavirus, which both result in diarrhea in young animals. Feline enteric coronavirus is a pathogen of minor clinical significance, but spontaneous mutation of this virus can result in feline infectious peritonitis (FIP), a disease associated with high mortality. Hence significant research efforts have been focused on elucidating the viral pathogenesis of these animal coronaviruses, especially by virologists interested in veterinary and zoonotic diseases.

## SARS

In 2003, following the outbreak of Severe Acute Respiratory Syndrome which had begun the prior year (SARS) in Asia, and secondary cases elsewhere in the world, the World Health Organization issued a press release stating that a novel coronavirus identified by a number of laboratories was the causative agent for SARS. The virus was officially named the SARS coronavirus (SARS-CoV).

The SARS epidemic resulted in over 8000 infections, about 10% of which resulted in death.<sup>[2]</sup> X-ray crystallography studies performed at the Advanced Light Source of Lawrence Berkeley National Laboratory have begun to give hope of a vaccine against the disease "since [the spike protein] appears to be recognized by the immune system of the host."<sup>[3]</sup>

## Recent discoveries of novel human coronaviruses

Following the high-profile publicity of SARS outbreaks, there has been a renewed interest in coronaviruses in the field of virology. For many years, scientists know only about the

existence of two human coronaviruses (HCoV-229E and HCoV-OC43). The discovery of SARS-CoV added another human coronavirus to the list. By the end of 2004, three independent research labs reported the discovery of a fourth human coronavirus. It has been named NL63, NL or the New Haven coronavirus by the different research groups. The naming of this fourth coronavirus is still a controversial issue, because the three labs are still battling over who actually discovered the virus first and hence earns the right to name the virus. Early in 2005, a research team at the University of Hong Kong reported finding a fifth human coronavirus in two pneumonia patients, and subsequently named it HKU1.

## Species

- Genus ***Coronavirus***
  - Group 1
    - *Canine coronavirus* (CCV)
    - *Feline coronavirus* (FIPV)
    - *Human coronavirus 229E* (HCoV-229E)
    - *Porcine epidemic diarrhea virus* (PEDV)
    - *Transmissible gastroenteritis virus* (TGEV)
    - *Human Coronavirus NL63* (NL or New Haven)
  - Group 2
    - *Bovine coronavirus* (BCoV)
    - *Human coronavirus OC43* (HCoV-OC43)
    - *Murine hepatitis virus* (MHV)
    - *Porcine hemagglutinating encephalomyelitis virus* (HEV)
    - *Rat coronavirus* (RCV)
    - *Turkey coronavirus* (TCoV)
    - *(No common name as of yet)* (HCoV-HKU1)
  - Group 3
    - *Infectious bronchitis virus* (IBV)
  - Not grouped
    - *Severe acute respiratory syndrome coronavirus* (SARS-CoV)

Note: As of March 2005, most virologists who study coronaviruses would classify SARS-CoV as under Group 2 or as closely related to Group 2 coronaviruses.

## References

1. [Li, Fang, et. al. \(2005\). Structure of SARS Coronavirus Spike Receptor-Binding Domain Complexed with Receptor.](#) *Science* **309**: 1864–1868.
2. [Learning How SARS Spikes Its Quarry.](#) Press Release PR-HHMI-05-4. Chevy Chase, MD: Howard Hughes Medical Institute. URL accessed on September 16, 2005.
3. van der Hoek L, Pyrc K, Jebbink MF, Vermeulen-Oost W, Berkhout RJ, Wolthers KC, Wertheim-van Dillen PM, Kaandorp J, Spaargaren J, Berkhout B. **Identification of a new human coronavirus.** [Nat Med. 2004 Apr;10\(4\):368-73. Epub 2004 Mar 21.](#)

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# Diabetes

**Diabetes mellitus** strikes 1 in 400 [cats](#) and a similar number of dogs. Symptoms in dogs and cats are similar to those in humans. Generally, most dogs and about half of cats experience type-1 (insulin-dependent) diabetes, rather than the type-2 that's now becoming common in obese humans. The condition is definitely treatable, and need not shorten the animal's life span or life quality. In cats, prompt effective treatment can even lead to diabetic remission, in which the cat no longer needs injected insulin. Untreated, the condition leads to blindness in dogs, increasingly weak legs in cats, and eventually malnutrition, ketoacidosis and/or dehydration, and death.

## Symptoms

Cats and dogs will generally show a gradual onset of the disease over a few weeks, and it may escape notice for a while. The condition is unusual in animals less than 7 years old. The first obvious symptoms are a sudden weight loss or gain, accompanied by excessive drinking and urination. Appetite is suddenly either ravenous (up to 3 times normal) or absent. In dogs, the next symptom is vision problems and cataracts, while in cats the back legs will become weak and the gait may become stilted or wobbly. A quick test at this point can be done using keto/glucose strips (the same as used on the Atkins diet) with your pet. If the keto/glucose strips show glucose in the urine, diabetes is indicated. If a strip shows ketones in the urine, the pet should be brought to an emergency clinic right away.

Watch for noticeable thinning of the skin and apparent fragility -- these are also serious and indicate that the pet is consuming all its body fat. Dehydration is also common by this point, and death can follow quickly.

## Treatment

Diabetes can be treated but is life-threatening if left alone. Early diagnosis and treatment by a qualified veterinarian can help, not only in preventing nerve damage, but in some cases, in cats, can even lead to remission.[\[1\]](#)[\[2\]](#)

## Diet

Diet is a critical component of treatment, and is in many cases effective on its own. For example, a recent mini-study[\[3\]](#) showed that many diabetic cats stopped needing insulin after changing to a low-carbohydrate diet. The rationale is that a low-carb diet reduces the amount of insulin needed and keeps the variation in blood sugar low and easier to predict. Also, fats and proteins are, in dogs and perhaps cats, turned into blood glucose much more slowly and evenly than carbohydrates, reducing blood-sugar highs right after mealtimes.

Latest veterinary good practise is to recommend a low-carb diet for cats, and a high-fiber, moderate-carb diet for dogs. In dogs another alternative is to feed a normal healthy diet but give mealtime insulin bolus supplements.

It's now becoming clear that lower carbohydrate diets will significantly lower insulin requirements for diabetic cats. Carbohydrate levels are highest in dry cat foods (even the expensive prescription types) so cats are best off usually with a low-carb healthy canned diet. Some prescription canned foods made for diabetic cats are effective, but some ordinary ones work just as well. Between 3 and 9% calories from carbohydrates seems to be optimal. [These lists of common commercial cat foods and their carbohydrate energy content are kept up-to date.](#)

## Pills

Oral medications like Glipizide that stimulate the pancreas promoting insulin release, (or in some cases, reduce glucose production) work in some small proportion of cats (Most dogs are Type I diabetics so oral hypoglycemic drugs are usually not prescribed for them), but these drugs may be completely ineffective if the pancreas is not working. Worse, these drugs have been shown in some studies[\[4\]](#) to damage the pancreas further, reducing the chances of remission for cats. They have also been shown to cause liver damage. Many are reluctant to switch from pills to insulin injections, but the fear is unjustified; the difference in cost and convenience is minor, (many cats are easier to inject than to pill!) and injections are more effective in almost all cases.

## Insulin injections

Humans with Type-1 diabetes are often treated with a "basal plus bolus" method, where a long-acting insulin is injected once or twice daily to provide a "basal" insulin level, then shorter-acting insulin is used just before mealtimes. For cats and dogs a "basal" method is usually employed instead -- a single slow-acting dose, twice daily, attempts to keep the blood sugar within a recommended range for the entire day. In this case it's important for the pet to avoid large meals, since they can seriously affect the blood sugar. (Meals may also be timed to coincide with peak insulin activity.) Once-daily doses are not recommended for most cats, since insulin usually metabolizes faster in cats than in dogs or humans; an insulin brand that lasts 24 hours in people may only be good for about 12 in a cat.

Cats and dogs may be treated with animal insulins (pork-based seems to work best in dogs, beef-based in cats), or with human synthetic insulins. The best choice of insulin brand and type varies between pets and may require some experimentation. One of the popular human synthetic insulins, Humulin N /Novolin N/ NPH, is reasonable for dogs, but is usually a poor choice for cats, since cats' metabolisms run about twice as fast. The Lente and Ultralente versions were therefore very popular for feline use until summer 2005, when Eli Lilly and Novo Nordisk both discontinued them.

Until the early 1990's, the most recommended type for pets was beef/pork-derived [PZI](#), but that type was phased out over the 1990's and is now difficult to find in many countries. There are sources in the US and UK, and many vets are now starting to recommend them again for pets.

Caninsulin [5], known in the USA as Vetsulin [6], made by Intervet [7] (owned by Akzo Nobel), is a brand of pork-based insulin, which is designed for cats and dogs, and is available both through veterinarians and pharmacies with a veterinarian's prescription, depending on the country [8]. Although not approved, Caninsulin can also be used for the treatment of diabetes mellitus in pet rabbits [9] and guinea pigs.

Two new ultra-slow time-release synthetic human insulins are just becoming available in 2004 and 2005 for improving basal stability, generically known as Insulin Detemir ("Levemir") [10] and Insulin Glargine ("Lantus"). A mini-study at the University of Brisbane, Australia [11] has had remarkable results with Insulin Glargine in cats. No studies have yet been performed on pets with Detemir/Levemir, but early anecdotal evidence [12] shows that it is also very effective on cats.

## **Neuropathy in cats**

The weak legs syndrome found in many diabetic cats is a form of neuropathy, in particular caused by damage to the myelin sheath of the peripheral nerves caused by glucose toxicity and cell starvation. (There are other conditions that can cause weak legs too, consult your vet before assuming neuropathy.) Most common in cats, the back legs become weaker until the cat displays "Plantigrade stance", standing on its hocks instead of on its toes as usual. The cat may also have trouble walking and jumping, and may need to sit down after a few steps. Some recommend a form of vitamin B12 called methylcobalamin to heal the nerve damage. Neuropathy often heals on its own within 1 to 3 months once blood sugar is regulated, but anecdotal evidence points to a faster recovery rate with these

## **Dosage and regulation**

Cats and dogs may in some cases have their mealtimes strictly scheduled and planned to match with injection times. In other cases where the pet free-feeds and normally eats little bits all day or night, it may be best to remain on this schedule and try to use a very slow-acting insulin to keep a constant level of blood glucose. Consult your veterinarian. Note that some veterinarians still use the outdated recommendation of using Humulin "N" or NPH insulin for cats. This insulin is too fast-acting for most cats (though fine for dogs and humans). Cat metabolism runs about twice as fast as human, and the often-effective slower-acting Lente and Ultralente (Humulin L and Humulin U) insulins are being discontinued (as of 2005), so most cats are now using either the veterinary PZI insulins, or the new full-day analogs glargin (Lantus) and detemir (Levemir).

The goal at first is to "regulate" the pet's blood glucose, which may take a few weeks or even many months. This process is basically the same as in type-1 diabetic humans. The goal is to keep the blood glucose values in a comfortable range for the pet during the whole day, or most of it.

The recommended method is to [Start Low - Go Slow](#):

1. Have an initial blood curve taken over 24 hours at the vet and receive an initial dosage recommendation.

2. The initial dosage will be very conservative (low) (usually between 0.5 and 2 units daily, split into 12-hour dosages) and may not affect the pet's symptoms noticeably at first. This is necessary because although high blood sugar can kill within weeks, low blood sugar can kill in minutes. Dosage must be increased gradually and carefully. The usual recommended method is to increase the dose by 1/2 to 1 unit every 7 to 14 days, followed by further glucose testing. *An initial decrease may also be necessary* -- it is fairly common for the initial recommendation to be a little bit too high, especially if it was estimated by weight. See Chronic Somogyi Rebound below. Buying an inexpensive blood [glucose meter and testing](#) for yourself just before each shot and at midpoint is essential -- it will save many expensive trips to the vet, avoid dangerous overdoses, and give you a better handle on the pet's ongoing condition. Urine strips are not accurate enough for this.
3. Your pet is "regulated" when its blood glucose remains within an acceptable range all day, every day. Acceptable varies somewhat between cats, dogs, and vets, but is roughly from 5 to 16.7 mmol/L (90 to 300 mg/mL in the USA) for cats, and between 5 and 14 (90 to 250) for dogs. (The range is wider for diabetic animals than non-diabetic, since shots cannot replicate the accuracy of a working pancreas.) **It's important, though, that the glucose level be in the lower half of that range for as much of the day as possible.** If you are not doing home glucose testing, some vets recommend that you stop increasing the dosage when the dog or cat is drinking normally, urinating normally, and eating normally, although organ damage may continue in some cases until glucose is below the "Renal Threshold" -- testing urine with keto/glucostix will show when this has been achieved.
4. Obstacles to regulation:
  - Sometimes your pet will suddenly appear to need less insulin than before. If this happens (their blood sugar will go lower than usual one day), drop the dose immediately and call your vet. If testing just before an injection, and the reading is much lower than expected, it may be wisest to skip that dose and continue retesting every 2-3 hours. If the drop is dramatic and leads to a hypoglycemic episode (see below), the cat's sensitivity to insulin may increase dramatically. You should consider dropping their dose after consulting your veterinarian, and raise it only by half to one unit per 5-7 days, as before.
  - Sometimes your pet's blood sugar will suddenly seem much higher than usual. This is often *not* a good time to increase their insulin dosage -- quite the opposite. It often indicates that a low blood sugar condition (or rapid sugar drop) was experienced a few hours before, and a [Somogyi rebound](#) is in progress. To be sure, drop the next dose by 15%-50% and take glucose readings every 4 to 8 hours until the glucose levels out. Then wait a few more days for the Somogyi hormones to decrease in the body, and then you can increase again by 0.5-unit steps every 5-7 days. If you experienced this rebound, chances are that your original dose was too high, so you should try to find an ideal dose at a lower point.

- Chronic overdose masked by Somogyi: A dose that is fractionally too high can easily cause a Somogyi rebound, which can look like a need for more insulin. This condition can continue for days or weeks, and it's very hard on the cat's metabolism. See more on this topic in the Somogyi section below.
- High-carb cat/dog food: Many commercial foods (especially "Light" foods) are extremely high in cereals and therefore carbohydrates. The extra carbohydrates will keep the cat or dog's blood sugar high, and if you're free-feeding may also make the blood sugar curve over the course of the day unpredictable. In general, canned foods are lower in carbohydrates than dry ones, and canned "kitten" foods lower still. Recent studies[\[13\]](#) show that cats' diabetes can be better regulated and even sometimes cured with a low-carbohydrate diet. This may not apply to dogs. If switching to a lower-carbohydrate food, do it gradually and lower the insulin dosage appropriately, with your vet's help. If your cat is on a special diet for pancreatitis, chronic renal failure, or any other condition, consult your vet for the appropriate diet for that condition plus diabetes.
- Wrong insulin: Different brands and types of insulin have idiosyncratic effects on different cats and dogs. If you've settled on a dose that seems to keep the pet's blood sugar within range at peak effectiveness, but the sugar readings remain dangerously high at shot times, the insulin may not be lasting long enough for your pet, or may not be the best choice. Switching to a slower-acting or a better-tolerated insulin for that pet, and lowering the dose initially to be safe, may be the next step.

## Blood sugar guidelines

Absolute numbers vary between pets, and with meter calibrations. The numbers below are **as shown on a typical home glucometer**, not necessarily the more accurate numbers a vet would see. For general guidelines only, the levels to watch are approximately:  
mmol/Lmg/dL(US)

<b>2.2</b>	<b>40</b>	Readings below this level are usually considered hypoglycemic. <u>Treat immediately</u>
<b>3</b>	<b>54</b>	this is an average non-diabetic pet's level, but leaves little margin of safety for a diabetic.
<b>5</b>	<b>90</b>	a common minimum safe value for the lowest blood sugar of the day
<b>6-10</b>	<b>100-180</b>	desired range for diabetics (non-diabetic range is 2.2 - 7.5, (40-130) but usually unsafe to aim for) "Renal threshold" (varies between individuals) excess glucose from the kidneys spills into the urine, pet begins to show diabetic symptoms.
<b>11-15</b>	<b>200-270</b>	Long term damage to eyes, nerves, <b>pancreas</b> and other organs if glucose remains above here too often. Risk of Urinary tract infection over time.
<b>14</b>	<b>250</b>	approximate maximum safe value for the highest blood sugar of the day, in dogs, to avoid short-term eye damage.
<b>16.7</b>	<b>300</b>	approximate maximum safe value for the highest blood sugar of the day, in cats, to avoid short-term nerve damage.

20 360

At high readings like this, combined with an infection, dehydration, or a fast, animals can sometimes quickly develop Diabetic ketoacidosis which is immediately life-threatening. Always check urine for ketones at high readings.

The regulation process is described in more detail [here](#).

## Detecting and avoiding chronic somogyi rebound

It's confusing but true: Too little insulin means pre-shots are too high; too much insulin often also means pre-shots are too high. This effect is often noted by those who test their pets' blood glucose at home.

The reason: Anytime the glucose level drops too far or too fast, the cat or dog may defensively dump glucose (converted from glycogen in the liver), as well as hormones epinephrine and cortisol, into the bloodstream. (If these are insufficient, hypoglycemia ensues!) The glycogen raises the blood glucose, the other two may make the pet insulin-resistant for a day or two. This phenomenon was first documented by a Dr. Somogyi.[\[14\]](#) [\[15\]](#).

Even when raising the insulin dose slowly and carefully, it's possible to pass the correct dose and go on to an overdose. (A typical case is increasing bidaily dosage from 1 unit to 2, passing a correct dose of 1.5 units.) This may produce a rebound -- a swift jump in blood glucose up from a dangerously low reading, to beyond the previous pre-shot level. The pet may be a bit less responsive to the same dose the next shot, from those other hormones. Repeating the overdose on subsequent days, and checking only pre-shot readings or urine glucose, can give the dangerously wrong impression that more insulin is needed! Remember to check occasionally at the expected nadir (low point) as well.

It's unusual to be monitoring glucose right when this happens, and typical to just continue the overdose, leading to a repeated rebound situation. So it's good to learn to recognize the patterns of repeated rebound.

- A typical rebound pattern, most often seen with long-acting insulins, is a high, flat, unresponsive blood sugar over a period of days. Sometimes, often when raising dosage, this high flat curve will be punctuated by sudden drops to very low values, (with possible hypoglycemic events) followed by a fast return to high unresponsive numbers. (It's the sudden dip that distinguishes this pattern from inadequate insulin!)
- When using shorter-acting insulins, repeated Somogyi rebound may manifest instead as rapidly alternating high and low blood sugar numbers with no apparent logic. The highs and lows will both be exaggerated compared to what you'd see on a smaller dose.

According to recent experience on internet diabetes forums, the rebound phenomenon may be less dramatic and more common than usually thought, in some pets. The term "mini-rebound" is beginning to gain currency. If your insulin dose is just a smidgen high, you may see either nothing at all, or a hypoglycemic episode or a mini-rebound. Some [Feline Diabetes Message Board](#) regulars describe mini-rebounds here: [\[16\]](#)

It's not always easy to tell a rebound from a regular curve showing insulin action ending normally. One way to tell the difference is to take a "curve" (repeated tests every 2 hours starting with the insulin shot) on a weekend and look for the shape of the curve. If the curve is valley-shaped, and gradual, then you are not seeing Somogyi rebound. Other shapes should arouse suspicion. In particular, if the rise after peak action is faster and rises higher than the original pre-insulin level and the original fall in blood sugar, you have good cause to consider rebound. The only sure way to check is to reduce dosage and look for a better-shaped curve.

A fairly sure sign: Anytime blood glucose numbers seem *higher* after dosage is raised, consider the possibility of a somogyi rebound. But other things can cause unexpectedly high blood glucose too, so look for a clear correlation with dosage changes.

## Hypoglycemic episode

An acute hypoglycemic episode (very low blood sugar) can happen even if you are careful, since pets' insulin requirements sometimes change without warning. The symptoms are depression/lethargy, confusion/dizziness, loss of excretory/bladder control, vomiting, and then loss of consciousness and/or seizures. As soon as possible, administer honey or corn syrup by rubbing it on the gums (even if unconscious, but not if in seizures), and rush it to the vet. Carry more honey or corn syrup with you on the way and keep rubbing it on the gums, where it can be absorbed -- it could save the pet's life. Every minute without blood sugar causes brain damage. (Some recommend administering syrup anally if the animal is in seizures!)

If the pet has hypoglycemia according to the blood glucose meter (<2.2mmol/L or 40mg/dL), but no symptoms, give treats or food if possible. If they won't eat, try putting food in their mouth. If that doesn't work, administer some honey followed by food or cat treats, and continue to do so until the blood glucose is rising, and the latest insulin shot's peak action is past.

Sometimes a mild hypoglycemic episode will go unnoticed, or leave evidence such as an "accident" where kitty fails to make it to the litterbox. In these cases the blood sugar will probably appear paradoxically *high* upon the next test hours later, since the pet's body will react to the low blood sugar by stimulating the liver to release stored glycogen. This condition is known as ***Somogyi rebound*** (see link above), and ***requires a lowered insulin dosage*** for the next few days. The Somogyi rebound may also occur when the pet's blood glucose drops *too rapidly*, even if it never actually reaches a low reading.

## Remission in cats

It is in many cases possible to induce remission (a temporary or permanent freedom from insulin-dependence) in diabetic cats. (This appears to be unique to cats, unfortunately for dogs and humans.) There is growing agreement among experts[\[17\]](#)[\[18\]](#) that a combination of low-carb healthy diet, well-chosen insulin, and well-chosen dosage plans can in many cases heal a damaged pancreas and allow the cat's blood sugar to be controlled entirely by diet thereafter. (A low-carb diet is usually required for the remainder of the cat's life.)

Remission can be induced in 20, 30, or even over 70 percent of cats who are properly regulated quickly. Chances of success are highest in the first few months after initial diagnosis. This limited time window is a good reason to start with low-carb diet and very slow-acting insulins, the most successful known combination, right away.

An explanation can be pieced together from recent studies [19] in which diabetes in cats is perpetuated, if not always caused, by a combination of glucose toxicity and amyloidosis , such that the insulin-producing islets of the pancreas become clogged with amyloid deposits. Cats may present with type-2 (insulin-resistant) diabetes, at least at first, but hyperglycemia, left untreated, will damage the pancreas over time and induce type-1 diabetes as well.

Amylin (aka IAPP) is normally produced in the Islets of Langerhans along with insulin, as a response to high blood sugar. In a damaged pancreas, little insulin is made, but amylin continues to be produced. Lack of insulin leads to further hyperglycemia which stimulates higher amylin production, some of which remains lining the islets. Oxidization caused by excess glucose denatures the amylin (as well as some vital proteins in the Islets)[20], which congeals and thickens the deposited amylin into amyloid, which clogs the islets more effectively. Once the islets are blocked, insulin production is blocked. Once this happens to most of the pancreas, remission is no longer possible.

Note that Glipizide and similar oral diabetic medicines have been shown to increase amyloid production and amyloidosis.[21]

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## Ear Mite

**Ear mites** are mites that live in the ears of animals.

## Contagion

The problem is very contagious, and can be transmitted from even brief physical contact with other animals. Very rarely, Humans can also be affected.

## Consequences of infection

This is often a problem in pets such as [cats](#) and ferrets, as they cause inflammatory symptoms, like bacterial and yeast infections. Other, more serious problems can result from untreated infections, such as skin disease, deafness, and seizures.

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## Feline Panleukopenia

Group: Group I (dsDNA) Family: *Parvoviridae* Genus: *Parvovirus* Species: ***Feline panleukopenia virus***

**Feline panleukopenia**, more commonly known as **feline distemper**, is a viral infection affecting [cats](#) caused by feline [parvovirus](#), a close relative of canine parvovirus. It is not related to canine distemper. Protection is offered by commercial feline distemper vaccine, which is usually a mixture of vaccines for several different diseases, including panleukopenia.

It is spread from one cat to another in a variety of ways: any contact with an infected cat's bodily fluids or feces can do the trick, even sharing the same water dish.

The virus primarily attacks the lining of the gastrointestinal tract, causing internal ulceration and, ultimately, total sloughing of the intestinal epithelium. This results in profuse, usually bloody diarrhea, causing severe dehydration, malnutrition, anemia, and often death.

The virus causes a decrease in the cat's white blood cells, thus compromising its immune system. Typically, infection causes a decrease in WBC, hematocrit and platelet counts on a CBC. This is often key in diagnosing panleukopenia.

Symptoms include depression, lethargy, loss of appetite, a high fever, vomiting, diarrhea, and loss of skin elasticity.

If a pregnant cat is exposed during pregnancy, the virus can cause [cerebellar hypoplasia](#) in her offspring. This is why administering modified live feline panleukopenia vaccine during pregnancy is discouraged.

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## Feline Immunodeficiency Virus

Group: Group VI (ssRNA-RT) Family: *Retroviridae* Genus: *Lentivirus* Species: ***Feline immunodeficiency virus***

**Feline immunodeficiency virus** (FIV) is a lentivirus that affects [domesticated housecats](#) worldwide. FIV is in the same retrovirus family as [Feline leukemia virus](#) (FeLV). FIV is not a death sentence for cats.

The primary mode of transmission for FIV is deep bite wounds whereas FeLV is easily spread by casual contact such as grooming and shared water bowls; experts disagree as to whether FIV can be spread by casual contact. FIV attacks the immune system of cats, much like the human immunodeficiency virus (HIV) attacks the immune system of human beings. FIV and HIV are both lentiviruses, however, neither can infect the other's usual host: humans cannot be infected by FIV nor can cats be infected by HIV. Because biting is the most efficient means of viral transmission, free-roaming, aggressive male cats are the most frequently infected, while cats housed exclusively indoors are much less likely to be infected.

FIV infected cats are often unnecessarily euthanised. A vigilant pet owner that treats any secondary infections can make the difference. An infected cat can often live a nearly normal

life span. The chance that an FIV infected cat will pass the disease onto other cats within a household is less than 2% as long as there is no fighting or biting. Keeping infected cats separated from disease free cats is the only sure way of preventing the spread of the disease.

FIV can infect other feline species, and in fact in some large wild cat species, such as African lions, the virus is commonly present. However, unlike in domestic cats, the virus does not necessarily cause disease in these species, perhaps because these species have acquired, during evolution, mutations that confer resistance to it.

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## Feline Infectious Peritonitis

**Feline infectious peritonitis (FIP)** is a fatal, incurable disease that affects [cats](#). It is caused by Feline Infectious Peritonitis Virus (FIPV), which is a mutation of Feline Enteric [Coronavirus](#) (FECV/FeCoV). Experts do not always agree on the specifics of FIP. However, the most common theory is that the normally benign FECV mutates into FIPV. The mutated virus has the ability to invade and grow in certain white blood cells. The immune system's response causes an intense inflammatory reaction in the containing tissues.

## Transmission and infection

FECV is very common, especially in places where large groups of cats are kept together ([animal shelters](#), catteries, etc). Cats become infected by inhaling or ingesting the virus. The most commonly cited transmission source is feces, although virus-contaminated surfaces such as food dishes and clothing can transmit the virus as well.

Despite the prevalence of FECV, most infected cats do not develop FIP. Often exposure to FECV produces no symptoms, but may cause a mild upper respiratory disease. Therefore, a cat with no symptoms whatsoever might still be an FECV carrier and pass the virus to another cat. Even if FECV does not mutate in the carrier, the newly infected cat might still contract FIP.

## Symptoms

There are two main forms of FIP: effusive (wet) and non-effusive (dry). While both types are fatal, the effusive form is more common (60-70% of all cases are wet) and progresses more rapidly than the non-effusive form.

### Effusive (wet)

The hallmark symptom of effusive is the accumulation of fluid within the abdomen or chest, which can cause breathing difficulties. Other symptoms include lack of appetite, fever, weight loss, jaundice, and diarrhea.

## Non-effusive (dry)

Dry FIP will also present with lack of appetite, fever, jaundice, diarrhea, and weight loss, but there will not be an accumulation of fluid. Typically, though, a cat with dry FIP will show ocular or neurological signs.

## Diagnosis

The symptoms associated with FIP are often non-specific, which can cause diagnosis to be very difficult. A definitive diagnosis requires examination of affected tissues for the FIP virus. This is usually performed post-mortem, but can be performed via tissue biopsy. Histopath examination of tissue samples is usually the cheapest and most readily available diagnostic, however a PCR test is also available for use with fluid or certain tissue samples that is considered definitive.

More commonly, a presumptive diagnosis is made based on clinical signs and evaluation of abdominal or chest fluid, if available. Fluid caused by FIP tends to be yellow in color and have elevated protein levels. Blood tests can also be performed to bolster a presumptive diagnosis by looking for coronavirus antibodies and elevated protein. Coronavirus titers are not considered diagnostic in and of themselves due to the ubiquity of FeCoV, but may be used in conjunction with clinical symptoms to make an FIP diagnosis.

## Treatment

As there is no cure for FIP, treatment is symptomatic and palliative. Typically the owner is advised to make the cat as comfortable as possible until it becomes clear that the cat is suffering. Prednisone or other immunosuppressive drugs prescribed by a veterinarian may help to prolong the cat's life for a few weeks or months, but may be contraindicated in certain cases due to concomitant infection(s). Effusive FIP usually progresses too rapidly for any meaningful therapy to be attempted.

Quarantine may be advised if there are other cats in the environment, however because the details of transmission aren't well understood desired measures of quarantine will vary among practitioners.

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# Feline Leukemia Virus

Group: Group VI (ssRNA-RT) Family: *Retroviridae* Genus: *Gammaretrovirus* Species: ***Feline leukemia virus***

**Feline leukemia virus (FeLV)** is a retrovirus that infects [cats](#). As a retrovirus, the genetic information of FeLV is carried by RNA instead of DNA. FeLV is usually transmitted between infected cats when the transfer of saliva or nasal secretions is involved, for example when

sharing a feeding dish. If not defeated by the animal's immune system, the virus can be lethal. There is currently no known cure for infection.

## Transmission

[Cats](#) infected with FeLV serve as sources of infection. The virus is released from the body in saliva and nasal secretions. It is also transmitted, though not as often, in urine, feces, and milk from infected cats. Cat-to-cat transfer of the virus may occur from a bite wound, during mutual grooming, and sometimes even through the shared use of litter boxes and feeding dishes. Transmission can also take place from an infected mother cat to her kittens, either before they are born or while they are nursing. FeLV doesn't survive long outside a cat's body, normally less than a few hours under normal household conditions.

FeLV causes immunosuppression in pet cats, and there is also evidence for existence of the virus in larger wild cat populations also (e.g. Lynx, Cheetah, and Lion). Overwhelming epidemiologic evidence suggests FeLV is not transmissible to either humans or dogs. This statement is based on the fact that approximately one pet dog in five lives with a cat, and all pet cats live with humans (some 60 million pet cats in the USA). Not one verifiable report exists in the medical/veterinary literature for FeLV infection in either a puppy or adult dog, and there is no report of an FeLV infection in a human child or of an immunocompromised adult pet owner.

Approximately 0.5% of pet cats are persistently infected with FeLV, but many more pet cats (>35%) have specific IgG antibodies which indicate prior exposure and subsequent development of immunity instead of infection. Transmission of FeLV is mainly via saliva and friendly behaviours, such as sharing feeding bowls and mutual grooming (as distinct from fighting and biting).

There is strong evidence kittens under 4 months of age are susceptible to infection, but by eight months are resistant - hence it is a good idea to keep young pet kittens indoors where virus exposure is minimal or non-existent until about 8 months of age.

Four subgroups of FeLV exist: A; B; C, and T, but only subgroup A is transmissible between cats. The other subgroups arise "de novo" and as results of recombination with an endogenous DNA feline sequence. Hence, there is very good evidence this virus is quite ancient, and may well have evolved more than one time over the last 10,000,000 years.

## Progression

There are many possible outcomes as to how successfully the cat's immune system will react to the virus. About forty percent of cats extinguish the virus. Sixteen percent of these fight it off due to minimal exposure to it. The other twenty-four percent resist the virus at phase four, which will be described later. All of this usually occurs between sixteen to eighteen weeks after the FeLV infection begins. About twenty percent are able to put the virus into a latent stage, in which the virus will remain until the cat becomes stressed causing the FeLV to re-emerge. About five to ten percent of cats go through a sequestered stage in which viremia is limited, intermittent, or absent altogether. Approximately thirty percent of cats go through the disease from start to finish, normally resulting in death.

Once the virus has entered the cat, there are six phases to a FeLV infection:

- Phase one is when the virus enters the cat, usually through the pharynx where it infects the epithelial cells and infects the tonsillar B-lymphocytes and macrophages. These white blood cells then filter down to the lymph nodes and begin to replicate.
- In phase two, the virus enters the blood stream and begins to distribute throughout the body.
- Phase three starts when the lymphoid system (produces antibodies to attack infected and cancerous cells) becomes infected with further distribution throughout the body.
- Phase four is the main point in the infection, where the virus can take over the body's immune system cause viremia. During this phase the hemolymphatic system and intestines become infected.
- If the cat's immune system does not fight off the virus, then it goes onto phase five where the bone marrow becomes infected. At this point, the virus will stay with the cat for the rest of its life. In this phase, the virus replicates and is released four to seven days later in infected neutrophils (white blood cells), and sometimes lymphocytes, monocytes (white blood cell formed in the bone marrow), and eosinophils (another white blood cell).
- At phase six the cat's body is overwhelmed by infection and mucosal and glandular epithelial cells (tissue that forms a thin protective layer on exposed bodily surfaces and forms the lining of internal cavities, ducts, and organs) become infected. The virus replicates in epithelial tissues including salivary glands, oropharynx, stomach, esophagus, intestines, trachea, nasopharynx, renal tubules, bladder, pancreas, alveolar ducts, and sebaceous ducts from the muzzle.

Cats diagnosed as persistently infected by ELISA testing may die within a few months or may remain asymptomatic for up to 4 years. The fatal diseases are leukemias, [lymphomas](#), and non-regenerative Anemias. There is no known cure for the virus infection and no known palliative pharmaceutical therapy. Vaccines for FeLV are available, but their efficacy remains unproven.

## Viral structure

**Feline Leukemia Virus (FeLV)** is an RNA retrovirus or oncornavirus first described by W. Jarrett (et al, Nature 202:566) at University of Glasgow, School Veterinary Medicine, in 1964. The virus is comprised of 5' and 3' LTR's and three genes: Gag (structural), Pol (enzymes) and Env (envelope and transmembrane); the total genome is about 9,600 base-pairs.

The replication process of the FeLV virus is fairly straightforward. First the virus attaches to receptors on surface of the target cell. Then the virus penetrates the cell membrane, sheds its envelope and capsid, and releases its single stranded RNA and reverse transcriptase. Reverse transcriptase, with the help of the cat's cellular enzymes, makes the ssRNA into double stranded DNA. The dsDNA circulates and integrates into the nucleus and attempts to incorporate into the cat's chromosomes. If the viral DNA is successful in incorporating into

the cat's DNA it transcribes to mRNA. The new viral RNA, proteins, and reverse transcriptase are synthesized, assembled, and then bud from the plasma membrane as a new FeLV virus to infect another cell. When the dsDNA is integrated into the nucleus it can have four possible effects: productive infection, latent infection, insertional mutagenesis (in which the viral DNA is incorporated into a critical part of the DNA and mutates the cell), and finally failure of integration (where viral DNA accumulates in the cell and is toxic to it).

## Comparison with FIV

FeLV and [Feline immunodeficiency virus](#) are in the same family, and are sometimes mistaken for one another. However, the viruses differ in many ways. Their shapes are quite different: FeLV is more circular while FIV is elongated. The two viruses are also quite different genetically, and their protein coats differ in size and composition. Although many of the diseases caused by FeLV and FIV are similar, the specific ways in which they are caused differs also differs.

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## Feline Lower Urinary Tract Disease

**Feline lower urinary tract disease (FLUTD)** is a term that is used to cover many problems of the feline urinary tract, including stones and cystitis. The term **feline urologic syndrome (FUS)** is an older term which is still sometimes used for this condition. The terms **plugged-penis syndrome** and **blocked cat syndrome** also refer to this disorder. It is a common disease in adult cats. It may present as any of a variety of urinary tract problems, and can lead to a complete blockage of the urinary system, which if left untreated is fatal. FLUTD is not a specific diagnosis in and of itself, rather, it represents an array of problems within one body system.

FLUTD affects cats of both sexes, but tends to be more dangerous in males because they are more susceptible to blockages due to their longer, narrower urethrae. Urinary tract disorders have a high rate of recurrence, and some cats seem to be more prone to urinary problems than others.

## Symptoms

Symptoms of the disease include prolonged squatting and straining during attempts to urinate, frequent trips to the [litterbox](#) or a reluctance to leave the area, small amounts of urine voided in each attempt, blood in the urine, howling, crying, or other vocalizations. Male cats may suffer complete blockage of the urethra, leading to painful bladder distension as the organ fills with urine. Kidney failure and uremia will follow within hours. A male cat may protrude its penis. The cat may seek seclusion, stop eating and drinking, begin to vomit, and become lethargic and eventually comatose as toxins accumulate in the bloodstream. This is a veterinary emergency which will lead to death if not treated.

## Causes

Any condition which causes inflammation of the urinary bladder or constriction of the urethra can cause this problem. These conditions include but are not limited to:

- trauma
- congenital malformation of the urinary tract
- struvite crystals (magnesium aluminum phosphate precipitates) - the most common substance causing mechanical blockage of the urethra
- kidney or bladder stones of struvite or other minerals
- plugs of mucus or blood cells
- neurological problems
- dehydration
- obesity
- bacterial infection
- tumor
- intentional urinary retention - a common behavior seen in cats not given a suitable place to void (e.g. no litterbox or dirty litterbox)

The disorder may be caused by a combination of these factors. For example, a diet of dry food which is high in magnesium or other minerals and high in pH, combined with inadequate intake of water may lead to favorable conditions for precipitate buildup in the lower urinary tract. However, these factors affect individual cats differently. Most cats tolerate normal dry diets with no urinary problems.

## Treatment

A blocked urethra requires immediate veterinary attention. The plug must be removed from the penis and the bladder drained. Gentle mechanical manipulation of the penis may dislodge the blockage, or a catheter might be used to drain the bladder. Intravenous fluids are given to treat uremia. Antibiotics and a special diet may be prescribed. Diets low in magnesium and urine acidifiers may be helpful. Cats prone to repeated attacks of this disorder may require surgery, such as the removal of the penis to prevent its blockage.

## Further Reading

Carlson, Delbert G. & Giffin, James M. *Cat Owner's Home Veterinary Handbook*. New York: Howell Book House, 1995.

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## Fibrosarcoma

### ICD-10

(ICD-O 8810/3)

**Fibrosarcoma** (fibroblastic sarcoma) is a malignant tumor derived from fibrous connective tissue and characterized by immature proliferating fibroblasts or undifferentiated anaplastic spindle cells.

## Pathology

The tumor may present different degrees of differentiation: low grade (differentiated), intermediate malignancy and high malignancy (anaplastic). Depending on this differentiation, tumor cells may resemble mature fibroblasts (spindle-shaped), secreting collagen, with rare mitoses. These cells are arranged in short fascicles which split and merge, giving the appearance of "fish bone". Poorly differentiated tumors consist in more atypical cells, pleomorphic, giant cells, multinucleated, numerous atypical mitoses and reduced collagen production. Presence of immature blood vessels (sarcomatous vessels lacking endothelial cells) favors the bloodstream metastasizing.

## Fibrosarcoma in dogs and cats

Fibrosarcoma occurs most frequently in the mouth in dogs. The tumor is locally invasive, and reoccurs often following surgery. Radiation therapy and chemotherapy are also used in treatment. Fibrosarcoma is also a rare bone tumor in dogs.

In cats, fibrosarcoma occurs on the skin. It is also the most common vaccine-associated sarcoma.

## Reference

- Ettinger, Stephen J.; Feldman, Edward C. (1995). *Textbook of Veterinary Internal Medicine* (4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3

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## Flea

SEM micrograph of a flea

Domain: Eukaryota

Kingdom: Animalia

Subkingdom: Metazoa

Phylum: Arthropoda

Class: Insecta

Subclass: Pterygota

Infraclass: Neoptera

Superorder: Endopterygota

### Order: **Siphonaptera**

Families

<i>Tungidae-</i>	<i>Sticktight</i>	<i>and</i>	<i>Chigoe</i>	<i>fleas(Chiggers)</i>
<i>Pulicidae-</i>		<i>Common</i>		<i>fleas</i>
<i>Coptopsyllidae</i>				
<i>Vermipsyllidae-</i>		<i>Carnivore</i>		<i>fleas</i>
<i>Rhopalopsyllidae-</i>		<i>Marsupial</i>		<i>fleas</i>
<i>Hypsophthalmidae</i>				
<i>Stephanocircidae</i>				
<i>Pygiopsyllidae</i>				
<i>Hystrichopsyllidae-</i>	<i>Rat</i>	<i>and</i>	<i>mouse</i>	<i>fleas</i>
<i>Leptopsyllidae-</i>	<i>Bird</i>	<i>and</i>	<i>rabbit</i>	<i>fleas</i>
<i>Ischnopsyllidae-</i>		<i>Bat</i>		<i>fleas</i>
<i>Ceratophyllidae</i>				
<i>Amphipsyllidae</i>				
<i>Malacopsyllidae</i>				
<i>Dolichopsyllidae-</i>		<i>Rodent</i>		<i>fleas</i>
<i>Ctenopsyllidae</i>				

**Flea** is the common name for any of the small wingless insects of the order Siphonaptera. Fleas are external parasites, living by hematophagy off the blood of mammals and birds.

*Note:* There is also a genus of Protozoa named *Siphonaptera*

Some well known flea species include:

- Cat Flea (*Ctenocephalides felis*),
- Dog Flea (*Ctenocephalides canis*),
- Human Flea (*Pulex irritans*),
- Northern Rat Flea (*Nosopsyllus fasciatus*),
- Oriental Rat Flea (*Xenopsylla cheopis*).

In most cases fleas are just a nuisance to their hosts, but some people and some animals suffer allergic reactions to flea saliva resulting in rashes. Flea bites generally result in the formation of a slightly-raised swollen itching spot with a single puncture point at the center.

However, fleas can act as a vector for disease. One devastating example of this was the bubonic plague, transmitted between rodents and humans. Murine typhus (endemic typhus) fever, and in some cases tapeworms, Hymenolepis can also be transmitted by fleas.

## Life Cycle

Fleas pass through a complete life cycle consisting of egg, larva, pupa and adult. Completion of the life cycle from egg to adult varies from two weeks to eight months depending on the temperature, humidity, food, and species. Normally after a blood meal, the female flea lays about 15 to 20 eggs per day – up to 600 in its lifetime – usually on the host (dogs, [cats](#), rats, rabbits, mice, squirrels, chipmunks, raccoons, opossums, foxes, chickens, humans, etc.). Eggs loosely laid in the hair coat drop out almost anywhere, especially where the host rests, sleeps or nests (rugs, carpets, upholstered furniture, cat or dog boxes, kennels, sand boxes, etc.).

Eggs hatch between two days to two weeks into larvae found indoors in and along floor cracks, crevices, along baseboards, under rug edges and in furniture or beds. Outdoor development occurs in sandy gravel soils (moist sand boxes, dirt crawlspace under the house, under shrubs, etc.) where the host may rest or sleep. Sand and gravel are very suitable for larval development which is the reason fleas are erroneously called "sand fleas."

Larvae are blind, avoid light, pass through three larval instars and take a week to several months to develop. Their food consists of digested blood from adult flea feces, dead skin, hair, feathers, and other organic debris; larvae do not suck blood. Pupae mature to adulthood within a silken cocoon woven by the larva to which pet hair, carpet fiber, dust, grass cuttings, and other debris adheres. In about five to fourteen days, adult fleas emerge or may remain resting in the cocoon until the detection of vibration (pet and people movement), pressure (host animal lying down on them), heat, noise, or carbon dioxide (meaning a potential blood source is near). Most fleas overwinter in the larval or pupal stage with survival and growth best during warm, moist winters and spring.

Flea bites can be treated with Calamine Lotion or 0.5-1% conc. hydrocortisone cream. Lufenuron is a veterinary medicine that attacks the larval flea's ability to produce chitin.

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# Great Muscles of the Head

In the anatomy of the [cat](#), there are only two prominent, or great, head muscles, and these are the **Masseter** and **Temporalis**. The two are branchiomeric muscles.

## Masseter

The **Masseter** is a great powerful, and very thick muscle covered by a tough, shining fascia lying ventral to the zygomatic arch, which is its origin. It inserts into the posterior half of the lateral surface of the mandible. Its action is the elevation of the mandible (closing of the jaw).

## Temporalis

The **temporalis** is a great mass of mandibular muscle, and is also covered by a tough and shiny fascia. It lies dorsal to the zygomatic arch and fills the temporal fossa of the skull. It arises from the side of the skull and inserts into the coronoid process of the mandible. It too, elevates the jaw.

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# Hairball

A **hairball** is a collection of hair or fur formed in the stomach of animals that is occasionally vomited up when it becomes too big. [Cats](#) are especially prone to hairball formation since they groom themselves by licking their fur leading to hair going into the stomach.

Cattle are also known to accumulate hairballs, but, as they do not vomit, these are found usually after death and can grow quite large.

Although uncommon in humans, some hairballs have been reported, often in young girls as a result of trichotillomania and pica. In 2003, a 3-year old girl in Red Deer, Alberta, Canada had a grapefruit-sized hairball surgically removed from her stomach and in 2004, an 18-year old woman from McAdam, New Brunswick, Canada had a 5-lb hairball surgically removed from her lower intestine. Hairballs can be quite hazardous in humans, since hair cannot be digested or passed by the human gastrointestinal system, and (assuming it is identified) even vomiting may be ineffective at removing the hair mass. This can result in the general impairment of the digestive system.

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# Heart Valve Dysplasia

**Heart valve dysplasia** is a congenital heart defect which in dogs and [cats](#) affects the aortic, pulmonary, mitral, and tricuspid heart valves. Pulmonary valve stenosis and aortic valve stenosis are discussed separately. Dysplasia of the mitral and tricuspid valves can cause leakage of blood or stenosis.

Dysplasia of the mitral and tricuspid valves - also known as the atrioventricular (AV) valves - can appear as thickened, shortened, or notched valves. The chordae tendinae can be fused or thickened. The papillary muscles can be enlarged or atrophied. The cause is unknown, but genetics play a big role. Dogs and cats with tricuspid valve dysplasia often also have an open foramen ovale, an atrial septal defect, or inflammation of the right atrial epicardium. In dogs, tricuspid valve dysplasia can be similar to Ebstein's anomaly in humans.

Mitral valve stenosis is one of the most common congenital heart defects in cats.

The disease and symptoms are similar to progression of valve disease in older dogs. Valve leakage leads to heart enlargement, arrhythmias, and congestive heart failure. Heart valve dysplasia can be tolerated for years or progress to heart failure in the first year of life. Diagnosis is with an echocardiogram. There is a poor prognosis with significant heart enlargement.

## References

- Abbott, Jonathan A. (2000). *Small Animal Cardiology Secrets* (1st ed.). Hanley & Belfus, Inc. ISBN 1-56053-352-8
- Ettinger, Stephen J.; Feldman, Edward C. (1995). *Textbook of Veterinary Internal Medicine* (4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3

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## Heartworm

**Heartworm** is a parasitic roundworm (*Dirofilaria immitis*) that is spread from host to host through the bites of mosquitoes. The heartworm affects dogs, [cats](#), wolves, coyotes, foxes, and some other animals, such as ferrets, sea lions, and even humans. The parasitic worm is called a "heartworm" because the parasite, in the final reproductive stage of its life cycle, resides in the heart of its host where it can stay for many years, until it kills its host through congestive failure of the heart.

## History of the disease

Heartworm was first discovered in dogs over a century ago and documented in cats by the 1920s. Since then, diagnostic tests and treatments for heartworm as well as preventative measures have been developed. Heartworm infestation may be extremely serious for the infected host; infected dogs that go untreated can die and even treated dogs must go through a long period of uncomfortable treatment (sometimes requiring surgery) to kill the worms

and remove them from the body. The best defense against heartworm is the use of prophylactic treatment given regularly during the mosquito season.

A course of heartworm prevention begins with a blood test to see if the parasite is present. If the dog is parasite free, a prophylactic medication can be used to prevent heartworm infection. A positive test result, on the other hand, usually requires treatment to eradicate the worms.

## **Heartworm in North America**

Although at one time confined to more southern climates, heartworm has now spread to nearly all climates where its vector, the mosquito, occurs (a vector is an intermediate host for the developing parasite, that spreads the disease from host to host). Transmission of the parasite from dog to dog occurs in all of the United States (except Alaska) and the warmer regions of Canada. The highest infection rates in North America occur in dogs within 150 miles of the Atlantic and Gulf coasts and along the Mississippi River and its major tributaries. However, high rates of infections are found in any area with large mosquito populations.

## **The parasite**

Heartworms go through several life stages before they become adults infesting the heart of the host animal. The worms require the mosquito as an intermediate stage in order to complete their life cycle and so at least two animal hosts other than the mosquito are required for the heartworm to reproduce. A mosquito ingests heartworm larvae, called microfilariae, from an infected host. The mosquito then transfers the larvae to another uninfected host when next it feeds. The microfilariae then go through several changes to reach adult form, eventually traveling to the right side of the heart to reproduce. Reproduction results in the dispersal of microfilariae into the bloodstream where ingestion by another feeding mosquito spreads the microfilariae to another host.

At this stage, the host dog will likely be asymptomatic. Once the infestation reaches a certain concentration in the lungs, the now adult worms migrate from the pulmonary artery to the right side of the heart and begin to reproduce in earnest, filling the blood with microfilariae. At this point the host will begin to show symptoms of infestation. These symptoms can manifest earlier or increase in severity depending on the activity level of the animals as infestation reduces cardio-pulmonary capacity. Very active animals may experience symptoms at lower heartworm concentrations and have more severe symptoms than less active animals.

Heartworms can reach up to 12 inches in length and can remain in the host's heart for several years.

## **Course of infestation**

The period between the initial infection when the dog is bitten by a mosquito and the maturation of the worms into adults living in the heart takes some 6.5 to 7 months in dogs and is known as the prepatent period.

Heartworms bear live young, known as microfilariae, producing thousands of them every day. The microfilariae then circulate in the bloodstream for as long as two years, waiting for the next stage in their life cycle in the gut of a bloodsucking mosquito. When ingested by a mosquito, the microfilariae undergo a series of molts to the infective, or third, larval stage and then migrate to the head of the mosquito, where they wait to infect another host. These changes can occur in as little as two weeks and as long as six weeks, depending on the warmth of the climate, and generally cease entirely at ambient temperatures below 14° Celsius (57° Fahrenheit).

After infection, the third stage larval heartworms deposited by the mosquito grow for a week or two and molt to the fourth larval stage under the skin at the site of the mosquito bite. Then they migrate to the muscles of the chest and abdomen and, some 45 to 60 days after infection, molt to the fifth stage (immature adult). Between 75 and 120 days after infection these immature heartworms then enter the bloodstream and are carried through the heart to lodge in the arteries of the lungs. Over the next 3 to 4 months they increase greatly in size, growing backwards until they fill the right atrium and ventricle of the heart. By approximately 6.5 to 7 months after infection the adult worms have mated and the females begin producing microfilariae.

## Symptoms of infestation

Dogs show no indication of heartworm infestation during the 6 month long prepatent period prior to the worms' maturation, and current diagnostic tests for the presence of microfilariae or antigens cannot detect prepatent infections. Rarely, migrating heartworm larvae get "lost" and end up in unusual sites such as the eye, brain, or an artery in the leg, which results in unusual symptoms such as blindness, seizures and lameness.

Many dogs will show little or no sign of infection even after the heartworms have matured. To some degree these dogs may be described as seeming to age slightly faster than normal as the worms slowly damage the lungs, kidneys and liver. These animals usually have a light infection and live a fairly sedentary lifestyle. However, active dogs and those with heavier infections will quickly show the classic symptoms of heartworm disease. Early symptoms include a cough, especially on exercise, and early exhaustion upon exercise. More advanced cases progress to severe weight loss, fainting, coughing up blood, and, finally, congestive heart failure.

## Epidemiology

Heartworm is present on every continent except Antarctica, where the mosquito vector is noticeably absent. The presence of heartworm in a geographic region is dependent on the following factors:

- susceptibility of host population
- stability of the disease reservoir
- population stability of vector species
- proper climate conditions

Dogs are considered the definitive susceptible host for the parasite. Untreated dogs also provide a stable disease reservoir. (Cats, on the other hand, are considered a resistant host and a poor disease reservoir. However, cats are more difficult to treat and so prevention is even more critical with felines.) Mosquitoes of several different species are the vectors. Development of the microfilariae in the mosquito ideally requires a temperature at or above 80° Fahrenheit for about two weeks. No larval development takes place in the mosquito below 57° F.

## Testing

Heartworms can be detected by blood test. The filtration test finds microfilariae in the blood; the occult tests (antigen and antibody) are used to detect adult worms. Many veterinarians prefer to do both tests, since the absence of microfilariae in the blood does not necessarily mean that there are no adult worms in the heart. Both tests are done with a single blood draw, preferably in the early spring before daily temperatures warm above 57° F.

X-ray radiographs and, to a lesser extent, ultrasound can also detect the presence of adult heartworms in the heart and lungs. X-rays also can provide a good estimate of the amount of lung damage caused by the presence of heartworms.

## Treatment

If either a blood test or the onset of symptoms betray the presence of heartworms, treatment is indicated. Treatment is highly efficacious if the disease is diagnosed early in the disease process. Before the worms can be treated, however, the dog must be evaluated for good heart, liver, and kidney function to ensure the animal can survive the treatment. Any insufficiencies in these organs must be dealt with first, before treatment, as the eradication process can be taxing on organ function. Usually the adult worms are killed with an arsenic-based compound. The currently recommended compound, Melarsomine dihydrochloride, is marketed under the brand name Immiticide. It has a greater efficacy and fewer side effects than previous formulation (Thiacetarsamide sodium, sold as Caparsolate) which makes it a safer alternative for dogs with late-stage infestations.

After treatment, the dog must rest (restricted exercise) for several weeks so as to give its body sufficient time to absorb the dead worms without ill effect. Otherwise, when the dog is under exertion, dead worms may break loose and travel to the lungs, potentially causing respiratory failure and death. Aspirin can be used during this time to help prevent further arterial damage and thromboembolism.

The course of treatment is not completed until several weeks later when the microfilariae are dealt with in a separate course of treatment. Once heartworm tests come back negative, the treatment is considered a success.

Surgical removal of the adult heartworms is also a treatment that may be indicated, especially in advanced cases with substantial heart involvement.

Long term monthly administration of ivermectin (but apparently not moxidectin, milbemycin or selamectin) year round for at least three years at the dose normally used for heartworm prevention (see "Prevention") also removes most adult heartworms from most

dogs. However, this is not the treatment of choice for removal of adult heartworms for two reasons. First, not all dogs are completely cleared of heartworms by this treatment. More importantly, adult heartworms do not begin to die until some 18 months of treatment have elapsed, which is not acceptable under most circumstances. This treatment is normally reserved for dogs that are not likely to tolerate treatment with the harsher, but more effective, melarsomine or instances where the owner cannot afford the more expensive melarsomine treatment.

From time to time various "homeopathic," "natural" or "organic" products are touted as cures or preventives for heartworm disease. However, such products have never been proven effective by rigorous scientific methods, and the claims should be viewed with skepticism.

## Prevention

Prevention of heartworm infection can be obtained through a number of veterinary drugs. Most popular are ivermectin (sold under the brand name Heartgard), milbemycin (Interceptor) and moxidectin (ProHeart) administered as pills or chewable tablets. These drugs are given monthly during the local mosquito season. Moxidectin is also available in a six-month sustained release injection administered by veterinarians, but the injectable form of Moxidectin was taken off the market in the United States due to safety concerns. Selamectin (Revolution), on the other hand, is a topical preventive that is likewise administered monthly. Some of these drugs also kill other parasites, including intestinal worms. In addition, Selamectin controls [fleas](#), [ticks](#), and mites.

Preventative drugs are highly effective, and when regularly administered will protect more than 99 percent of dogs from infection. Most failures of protection result from irregular and infrequent administration of the drug. However, the monthly preventives all have a reasonable margin for error in their administration such that if a single month's dose is accidentally missed, adequate protection is usually provided so long as the next two monthly doses are administered on schedule.

Cats may be treated with ivermectin (*Heartgard for Cats*), or the topical selamectin (*Revolution for Cats*).

Monthly heartworm prevention should be administered beginning within a month of the onset of the local mosquito season and continued for a month after the cessation of local mosquito activity. In warm climates, such as the warm temperate climate along the immediate Gulf coast of the United States and in tropical and subtropical regions, heartworm prevention must be administered year round. Some authorities recommend year round administration even in colder climates on the theory that mosquito activity may occur during the occasional unseasonable warm spell, but others argue that computer models indicate heartworm transmission is highly unlikely under such circumstances.

## Human health considerations

The dog heartworm is a negligible public health risk, because it is unusual for humans to become infected. Additionally, human infections usually are of little or no consequence,

although rarely an infected human may show signs of respiratory disease. In most cases, however, the heartworm dies shortly after arriving in the human lung, and a nodule, known as a granuloma, forms around the dead worm as it is being killed and absorbed. If an infected person happens to have a chest X-ray at that time, the granuloma may resemble lung cancer on the X-ray and require a biopsy to rule out the life threatening condition. This may well be the most significant medical consequence of human infection by the dog heartworm.

At one time it was thought that the dog heartworm infected the human eye, with most cases reported from the southeastern United States. However, these cases are now known to be caused by a closely-related parasite of raccoons, *Dirofilaria tenuis*. Several hundred cases of subcutaneous (under the skin) infections in humans have been reported in Europe, but these are almost always caused by another closely-related parasite, *Dirofilaria repens*, rather than the dog heartworm.

## Resources and external links

- [American Heartworm Society](#) Founded in 1974, the American Heartworm Society is internationally recognized as the definitive authority with respect to heartworm disease in dogs and cats.

American Heartworm Society Information for Pet Owners:

- [Quick Review of Heartworm Disease](#)
- [Heartworm Disease in Dogs](#)
- [Heartworm Disease in Cats](#)

American Heartworm Society Information for Veterinarians. (Every three years the American Heartworm Society holds an international symposium. Following each triennial symposium, the Society updates its guidelines for veterinarians to incorporate any new discoveries. The following guidelines are widely considered "best practices" and should be closely followed by veterinarians in dealing with this parasite.)

- [Guidelines for the Diagnosis, Prevention and Management of Heartworm \(\*Dirofilaria immitis\*\) Infection in Dogs](#)
- [Guidelines for the Diagnosis, Prevention and Management of Heartworm \(\*Dirofilaria immitis\*\) Infection in Cats](#)

Other Resources

- [Feline Heartworm Disease](#) (from Auburn University)
- [Heartworm Topics](#) (from the University of Pennsylvania)
- [Mosquito-borne Dog Heartworm Disease](#) (University of Florida Extension Bulletin)
- [Heartworm images](#) (from The Ohio State University)
- [What You Should Know About Heartworm Disease](#) (from the American Veterinary Medical Association)

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## Hip Dysplasia

**Hip dysplasia** is a congenital disease that, in its more severe form, can eventually cause lameness and painful arthritis of the joints. It is caused by a combination of genetic and environmental factors. It can be found in many animals and occasionally in humans, but is common in many dog breeds, particularly the larger breeds.

## Description

In the normal anatomy of the hip joint, the thigh bone (femur) joins the hip in the hip joint, specifically the caput ossis femoris. The almost spherical end of the femur articulates with the hip bone acetabulum, a partly cartilaginous mold into which the caput neatly fits. It is important that the weight of the body is carried on the bony part of the acetabulum, not on the cartilage part, because otherwise the caput can glide out of the acetabulum, which is very painful. Such a condition also may lead to maladaptation of the respective bones and poor articulation of the joint.

In dogs, the problem almost always appears by the time the dog is 18 months old. The defect can be anywhere from mild to severely crippling. It can cause severe osteoarthritis eventually.

## Causes

In dogs, there is considerable evidence that genetics plays a large role in the development of this defect. There might be several contributing genetic factors, including a femur that does not fit correctly into the pelvic socket, or poorly developed muscles in the pelvic area. Large and giant breeds are susceptible to hip dysplasia. Cats are also known to have this condition, especially [Siamese](#).

## Detection

The classic diagnostic technique is with appropriate X-Rays and hip scoring tests. These should be done at an appropriate age, and perhaps repeated at adulthood - if done too young they will not show anything. Since the condition is to a large degree inherited, the hip scores of parents should be professionally checked before buying a pup, and the hip scores of dogs should be checked before relying upon them for [breeding](#).

## Prevention

Overfeeding puppies and young dogs, particularly in the giant breeds, might aggravate the problem or bring it on earlier, because pups tend to be more active, less aware of their physical limitations, and have immature bones and supporting structures carrying their weight. Dogs from breeds which are known to be prone to dysplasia, can be kept slightly leaner than normal until around 2 years old, by which time the bones are full strength and the animal can be easily brought up to its normal adult weight. Overexercising young dogs whose bones and muscles have not yet fully developed might also be a contributing factor.

## Symptoms

Dogs might exhibit signs of stiffness after rising from rest, reluctance to exercise, bunny-hopping gait, lameness, pain, or wasting away of the muscle mass in the hip area. Radiographs often confirm the presence of hip dysplasia, but radiographic features may not be present until two years of age in some dogs. Moreover, many affected dogs do not show clinical signs, but some dogs manifest the problem before seven months of age, while others do not show it until well into adulthood.

## Treatment

There is no complete cure, although surgery can alleviate the clinical signs. Depending on the extent of the problem, surgical alternatives include excision arthroplasty, in which the head of the femur is removed and reshaped or replaced; pelvic rotation--triple pelvic osteotomy or pubic symphodesis--in which the hip socket is realigned, may be appropriate if done early enough. Hip replacement is also possible, it is expensive but (since it completely replaces the faulty joint) has the highest percentage of success, usually restores complete mobility, and also completely prevents recurrence.

Since less joint mobility may result in loss of muscle mass and quality as a dog ages, there is often an advantage in having hip replacement whilst the dog is at an early age, while muscle is more likely to re-developed, rather than in old age when convalescence is longer and more difficult.

Responsible breeders who track the incidence of hip dysplasia have been able to reduce the incidence in some breeds but not to eliminate it altogether.

## References

- Ettinger, Stephen J.;Feldman, Edward C.(1995).*Textbook of Veterinary Internal Medicine*(4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3
- Siegal, Mordecai (editor); *UC Davis School of Veterinary Medicine Book of Dogs*, 1995. Harper Collins. ISBN 0-06-270136-3.

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## Hyperthyroidism

### ICD-10

E05

### ICD-9

242, 775.3

**Hyperthyroidism** (or "overactive thyroid gland") is the clinical syndrome caused by an excess of circulating free thyroxine (T4) or free triiodothyronine (T3), or both.

## Causes

Major causes in humans are:

- Graves' disease (the most common etiology with 70-80%)
- Toxic thyroid adenoma
- Toxic multinodular goitre

Other causes of hyperthyroxinemia (high blood levels of thyroid hormones) are not to be confused with true hyperthyroidism and include subacute and other forms of thyroiditis (inflammation). Thyrotoxicosis (symptoms caused by hyperthyroxinemia) can occur in both hyperthyroidism and thyroiditis. When it causes acutely increased metabolism, it is sometimes called "thyroid storm".

## Signs and symptoms

Major clinical features in humans are weight loss (often accompanied by a ravenous appetite), fatigue, weakness, hyperactivity, irritability, apathy, depression, polyuria, and sweating. Additionally, patients may present with a variety of symptoms such as palpitations and arrhythmias (notably atrial fibrillation), dyspnea, loss of libido, nausea, vomiting, and diarrhea. In the elderly, these classical symptoms may not be present and they may present only with fatigue and weight loss leading to apathetic hyperthyroidism.

Neurological manifestations are tremor, chorea, myopathy, and periodic paralysis. Stroke of cardioembolic origin due to coexisting atrial fibrillation may be mentioned as one of the most serious complications of hyperthyroidism.

As to other autoimmune disorders related with thyrotoxicosis, an association between thyroid disease and myasthenia gravis has been well recognised. The thyroid disease, in this condition, is often an autoimmune one and approximately 5% of patients with myasthenia gravis also have hyperthyroidism. Myasthenia gravis rarely improves after thyroid treatment and relation between two entities is yet unknown. Some very rare neurological manifestations that are reported to be dubiously associated with thyrotoxicosis are pseudotumor cerebri, amyotrophic lateral sclerosis and a Guillain-Barré-like syndrome.

## Diagnosis

A diagnosis is suspected through blood tests, by measuring the level of TSH (thyroid stimulating hormone) in the blood. If TSH is low, there is likely to be increased production of T4 and/or T3. Measuring specific antibodies, such as anti-TSH-receptor antibodies in Graves' disease, may contribute to the diagnosis. In all patients with hyperthyroxinemia, scintigraphy is required in order to distinguish true hyperthyroidism from thyroiditis.

# Treatment

The major and generally accepted modalities for treatment of hyperthyroidism in humans are:

## Surgery

Surgery (to remove the whole thyroid or a part of it) is not extensively used because most common forms of hyperthyroidism are quite effectively treated by the radioactive iodine method. However, some Graves' disease patients who cannot tolerate medicines for one reason or another or patients who refuse radioiodine opt for surgical intervention. The procedure is relatively safe - some surgeons are even treating partial thyroidectomy on an out-patient basis.

## Radioiodine

In Radioiodine (treatment) therapy, radioactive iodine is given orally (either by pill or liquid) on a one-time basis to ablate a hyperactive gland. The iodine given for ablative treatment is different from the iodine used in a scan. Radioactive iodine is given after a routine iodine scan, and uptake of the iodine is determined to confirm hyperthyroidism. The radioactive iodine is picked up by the active cells in the thyroid and destroys them. Since iodine is only picked up by thyroid cells, the destruction is local, and there are no widespread side effects with this therapy. Radioactive iodine ablation has been safely used for over 50 years, and the only major reasons for not using it are pregnancy and breast-feeding.

Often, due to the difficulty of picking the correct dose, the treatment results in an opposite condition - hypothyroidism. However, that is usually easily treated by the administration of levothyroxine, which is a pure synthetic form of T4.

## Thyrostatics

Thyrostatics are drugs that inhibit the production of thyroid hormones, such as methimazole (Tapazole®) or PTU (propylthiouracil).

If too high a dose is used in pharmacological treatment, patients can develop symptoms of [hypothyroidism](#). Hypothyroidism is also a very common result of surgery or radiation treatment as it is difficult to gauge how much of the thyroid gland should be removed. Supplementation with levothyroxine may be required in these cases.

# Veterinary medicine

In veterinary medicine, *hyperthyroidism* is one of the most common endocrine conditions affecting older domesticated [cats](#). The disease has become significantly more common since the first reports of feline hyperthyroidism in the 1970s. In cats, it is almost always caused by a benign thyroid adenoma.

The most common presenting symptoms are: rapid weight loss, rapid heart rate, vomiting, diarrhoea, increased water consumption and increased urine production.

Surgery is not normally an option in feline hyperthyroidism. Radioiodine treatment or methimazole may be used to control symptoms.

## See also

- [hypothyroidism](#)

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# Keratoconjunctivitis Sicca

## ICD-10

[H193](#), [M350](#)

## ICD-9

## OMIM

[\[1\]](#)

## MedlinePlus

[\[2\]](#)

## eMedicine

[oph/695](#)

## DiseasesDB

[12155](#)

**Keratoconjunctivitis sicca (KCS)**, also called **keratitis sicca, xerophthalmia, dry eye syndrome**, or simply **dry eyes**, is an eye disease caused by decreased tear production or increased tear film evaporation commonly found in humans and small animals. Keratoconjunctivitis sicca is Latin and the literal translation is "dryness of the cornea and conjunctiva".

## The disease in humans

## Symptoms

In humans, the typical symptoms of keratoconjunctivitis sicca are burning and a sandy-gritty eye irritation that gets worse as the day goes on. The symptoms are often caused by a loss of water from the tears that results in tears that are too "salty" or hypertonic.

## Treatment

The best treatment strategies are designed to rehydrate the tears and eye surface, and include hypotonic, electrolyte-balanced tears, punctal plugs, and moist chamber spectacles. The inflammation that occurs in response to tears film hypertonicity can be suppressed by mild topical steroids or immunosuppressants such as cyclosporine, but these treatments have not been shown to help symptoms.

## Causes

Keratoconjunctivitis sicca usually occurs in people who are otherwise healthy. It is more common with older age, because tear production decreases with age. In rare cases, it can be associated with rheumatoid arthritis, lupus erythematosus, Sjögren's syndrome and other similar diseases. It may also be caused by thermal or chemical burns, or (in epidemic cases) by adenoviruses. A number of studies have found that those with [diabetes](#) are more at risk for KCS. ([PMID 15767060](#), [PMID 15663232](#), [PMID 15218664](#))

## The disease in dogs

Keratoconjunctivitis sicca is common in dogs. Most cases are caused by a genetic predisposition, but chronic conjunctivitis, canine distemper, and drugs such as sulfasalazine and trimethoprim-sulfonamide also cause the disease. Symptoms include eye redness, a yellow or greenish discharge, ulceration of the cornea, pigmented cornea, and blood vessels on the cornea. Diagnosis is made by measuring tear production with a Schirmer tear test. Less than 15 millimeters of tears produced in a minute is abnormal.

Tear replacers are a mainstay of treatment, preferably containing methylcellulose or carboxymethyl cellulose. Cyclosporine stimulates tear production and acts as a suppressant on the immune-mediated processes that cause the disease. Topical antibiotics and corticosteroids are sometimes used to treat secondary infections and inflammation. A surgery known as parotid duct transposition is used in some extreme cases where medical treatment has not helped. This redirects the duct from the parotid salivary gland to the eye. Saliva replaces the tears. Dogs suffering from cherry eye should have the condition corrected to help prevent this disease.

## The disease in cats

Keratoconjunctivitis sicca is uncommon in [cats](#). Most cases seem to be caused by chronic conjunctivitis, especially secondary to feline herpesvirus. Diagnosis, symptoms, and treatment are similar to dogs.

## References

- Gelatt, Kirk N. (ed.)(1999). *Veterinary Ophthalmology* (3rd ed.). Lippincott, Williams & Wilkins. ISBN 0-683-30076-8

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## Luxating Patella

**Luxating patella**, or trick knee, is a condition in which the patella, or kneecap, dislocates or moves out of its normal location. The luxation is usually medial, but can be lateral. It can be caused by some form of blunt trauma, or may be a congenital defect. In congenital cases, it is usually bilateral. Patellar luxation is a common condition in dogs, particularly small and miniature breeds. The condition usually becomes evident between the ages of 4 to 6 months. It also occurs in [cats](#), especially the [Domestic Shorthair](#).

Diagnosis is made through palpation of the knee. Rarely, x-rays are necessary. The luxating patella often causes no or very slight symptoms. There may be intermittent limping in the rear leg. Osteoarthritis can develop secondarily. There are several stages in patellar luxation, ranging from minor (the patella's position is normal most of the time) to very serious (the patella is permanently luxated). The more serious stages require surgery to correct, if the animal has difficulty walking. The surgery involves deepening the groove (trochlea) that the patella sits in.

## References

- Ettinger, Stephen J.; Feldman, Edward C.(1995).*Textbook of Veterinary Internal Medicine*(4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3

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# Lymphoma in Animals

**Lymphoma in animals** is a malignant cancer originating from lymphocytes, which are an important component of the immune system. Lymphoma also occurs in humans. The disease occurs in lymph nodes, bone marrow, and organs such as the liver, spleen, eye, skin, and gastrointestinal system. It is also known as **lymphosarcoma**.

## Lymphoma in dogs

Lymphoma is one of the most common malignant tumors to occur in dogs. The cause is genetic, but there also suspected environmental factors involved.

### Classification

The cancer is classified into low and high grade types. Classification is also based on location. The four location types are multicentric, mediastinal, gastrointestinal, and extranodal (involving the kidney, central nervous system, skin, heart, or eye). Multicentric lymphoma, the most common type, is found in the lymph nodes, with or without involvement in the liver, spleen, or bone marrow. Mediastinal lymphoma occurs in the lymph nodes in that area and possibly the thymus. Gastrointestinal lymphoma occurs as either a solitary tumor or diffuse invasion of the stomach or intestines, with or without involvement in the surrounding lymph nodes, liver or spleen. Classification is further based on involvement of B-lymphocytes or T-lymphocytes.

### Symptoms

General symptoms include depression, fever, weight loss, loss of appetite, and vomiting. Hypercalcemia (high blood calcium levels) occurs in some cases of lymphoma, and can lead to the above symptoms plus increased water drinking, increased urination, and arrhythmias.

Multicentric lymphoma presents as painless enlargement of the peripheral lymph nodes. This is seen in areas such as under the jaw, the armpits, the groin, and behind the knees. Enlargement of the liver and spleen causes the abdomen to distend. Mediastinal lymphoma can cause fluid to collect around the lungs, leading to coughing and difficulty breathing. Hypercalcemia is most commonly associated with this type. Gastrointestinal lymphoma causes vomiting, diarrhea, and melena (digested blood in the stool).

Lymphoma of the skin is an uncommon occurrence. An important type originating from T-lymphocytes is mycosis fungoides. It can have a wide variety of appearances, from a single lump to large areas of bruised, ulcerated, hairless skin.

Symptoms for lymphoma in other sites depend on the location. Central nervous system involvement can cause seizures or paralysis. Eye involvement can lead to glaucoma, uveitis, bleeding within the eye, retinal detachment, and blindness. Lymphoma in the bone marrow causes anemia, low platelet count, and low white blood cell count.

## **Diagnosis**

Biopsy of affected lymph nodes or organs confirm the diagnosis. X-rays, ultrasound, blood analysis, and bone marrow biopsy reveal other locations of the cancer. The stage of the disease is important to treatment and prognosis.

- Stage I - only one lymph node or lymphoid tissue in one organ involved.
- Stage II - lymph nodes in only one area of the body involved.
- Stage III - generalized lymph node involvement.
- Stage IV - any of the above with liver or spleen involvement.
- Stage V - any of the above with blood or bone marrow involvement.

Each stage is divided into those with systemic symptoms (loss of appetite, weight loss, etc.) and those without.

## **Treatment**

Complete cure is rare with lymphoma, but long remission times are possible with chemotherapy. With effective protocols, average first remission times are 6 to 8 months. Second remissions are shorter and harder to accomplish. Average survival is 9 to 12 months. The most common treatment is a combination of cyclophosphamide, vincristine, prednisone, L-asparaginase, and doxorubicin. Other chemotherapy drugs such as chlorambucil, lomustine (CCNU), cytosine arabinoside, and mitoxantrone are sometimes used in the treatment of lymphoma by themselves or in substitution for other drugs. In most cases, appropriate treatment protocols cause few side effects, but white blood cell counts must be monitored.

When cost is a factor, prednisone used alone can improve the symptoms dramatically, but it does not significantly affect the survival rate. The average survival times of dogs treated with prednisone and untreated dogs are both one to two months. Using prednisone alone can cause the cancer to become resistant to other chemotherapy agents, so it should only be used if there is definitely no chance of further treatment.

## **Prognosis**

Lymphoma with a histologic high grade generally respond better to treatment. Dogs with B-lymphocyte tumors have a longer survival time than T-lymphocyte tumors. Mediastinal lymphoma has a poorer prognosis than other types. Otherwise, the stage of the disease is the best prognostic factor.

## Lymphoma in cats

Lymphoma in young cats occurs most frequently following infection with feline leukemia virus (FeLV) or to a lesser degree feline immunodeficiency virus (FIV). These cats tend to have involvement of lymph nodes, spine, or mediastinum. Cats with FeLV are 62 times more likely to develop lymphoma, and cats with both FeLV and FIV are 77 times more likely. Older cats tend to have gastrointestinal lymphoma without FeLV infection. The same forms of lymphoma that are found in dogs also occur in cats, but gastrointestinal is the most common type. Lymphoma of the kidney is the most common kidney tumor in cats, and lymphoma is also the most common heart tumor.

### Symptoms

Symptoms for multicentric, mediastinal, and extranodal lymphoma are similar to dogs, except hypercalcemia is rare. The most common sites for gastrointestinal lymphoma are, in decreasing frequency, the small intestine, the stomach, the junction of the ileum, cecum, and colon, and the colon. Symptoms include vomiting, diarrhea, weight loss, loss of appetite, and melena. The tumor can also cause life-threatening blockage of the intestine. Anemia is a common problem in all cats with lymphoma. Lymphoma of the kidney presents as bilateral kidney enlargement and failure. Lymphoma of the heart causes congestive heart failure, pericardial effusion, and arrhythmias.

Diagnosis is similar to dogs, except cats should be tested for FeLV and FIV.

### Treatment and prognosis

Chemotherapy is the mainstay of treatment for lymphoma in cats. Most of the drugs used in dogs are used in cats, but the most common protocol uses cyclophosphamide, vincristine, and prednisone. The white blood cell count must be monitored. Remission and survival times are comparable to dogs. Lower stage lymphoma has a better prognosis. Multicentric lymphoma has a better response to treatment than the gastrointestinal form, but infection with FeLV worsens the prognosis.

## Lymphoma in ferrets

Lymphoma is common in ferrets and is the most common cancer in young ferrets. There is some evidence that a retrovirus may play a role in the development of lymphoma like in cats. The most commonly affected tissues are the lymph nodes, spleen, liver, intestine, mediastinum, bone marrow, lung, and kidney.

In young ferrets, the disease progresses rapidly. Symptoms include loss of appetite, weight loss, weakness, depression, difficulty breathing, and coughing. It can also masquerade as a chronic disease such as an upper respiratory infection or gastrointestinal disease. In older ferrets, lymphoma is usually chronic and can exhibit no symptoms for years. Symptoms seen are the same as in young ferrets, plus splenomegaly, abdominal masses, and peripheral lymph node enlargement.

Diagnosis is through biopsy and x-rays. There may also be an increased lymphocyte count. Treatment includes surgery for solitary tumors, splenectomy (when the spleen is very large), and chemotherapy. The most common protocol uses prednisone, vincristine, and cyclophosphamide. Doxorubicin is used in some cases. Chemotherapy in relatively healthy ferrets is tolerated very well, but possible side effects include loss of appetite, depression, weakness, vomiting, and loss of whiskers. The white blood cell count must be monitored. Prednisone used alone can work very well for weeks to months, but it may cause resistance to other chemotherapy agents. Alternative treatments include vitamin C and Pau d'Arco (a bark extract).

The prognosis for lymphoma in ferrets depends on the their health and the location of the cancer. Lymphoma in the mediastinum, spleen, skin, and peripheral lymph nodes has the best prognosis, while lymphoma in the intestine, liver, abdominal lymph nodes, and bone marrow has the worst.

## References

- Ettinger, Stephen J.;Feldman, Edward C.(1995).*Textbook of Veterinary Internal Medicine*(4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3
- Hillyer, Elizabeth V.;Quesenberry, Katherin E. (1997). *Ferrets, Rabbits, and Rodents: Clinical Medicine and Surgery* (1st ed.). W.B. Saunders Company. ISBN 0-7216-4023-0
- Morrison, Wallace B. (1998). *Cancer in Dogs and Cats* (1st ed.). Williams and Wilkins. ISBN 0-683-06105-4

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## Mastocytoma

A **Mastocytoma** is an accumulation or nodule of mast cells that resembles a tumor. In dogs and cats this collection of mast cells is actually a **mast cell tumor**. A mast cell originates from the bone marrow and is normally found throughout the connective tissue of the body. It is associated with allergic reactions because it releases histamine. A mast cell tumor is a common malignant tumor of the skin in older dogs and cats.

## Symptoms

Most mast cell tumors are small, raised lumps on the skin. Some are hairless, ulcerated, or itchy. They are usually solitary. In rare cases a highly malignant tumor is present, and symptoms may include loss of appetite, vomiting, diarrhea, and anemia. The presence of these symptoms usually indicates mastocytosis, which is the spread of mast cells throughout the body. Release of a large amount of histamine at one time can result in ulceration of the stomach and duodenum, or disseminated intravascular coagulation.

## Diagnosis

A needle aspiration biopsy of the tumor will show a large number of mast cells. This is sufficient to make the diagnosis of a mast cell tumor. However, a surgical biopsy is required to find the grade of the tumor. The grade depends on how well the mast cells are differentiated, from grade I to grade III. The disease is also staged.

- Stage I - a single skin tumor with no spread to lymph nodes
- Stage II - a single skin tumor with spread to lymph nodes in the surrounding area
- Stage III - multiple skin tumors or a large tumor invading deep to the skin with or without lymph node involvement
- Stage IV - a tumor with metastasis to the spleen, liver, bone marrow, or with the presence of mast cells in the blood

X-rays, ultrasound, or lymph node, bone marrow, or organ biopsies may be necessary to stage the disease.

## Treatment and prognosis

Removal of the mast cell tumor through surgery is the treatment of choice. Antihistamines such as diphenhydramine are given prior to surgery to protect against the effects of histamine released from the tumor. Wide margins (two to three centimeters) are required because of the tendency for the tumor cells to be spread out around the tumor. If complete removal is not possible due to the size or location, additional treatment such as radiation therapy or chemotherapy may be necessary. Prednisone is often used to shrink the remaining tumor portion. H2 blockers such as cimetidine protect against stomach damage from histamine.

Mast cell tumors that are grade I or II that can be completely removed have a good prognosis. Any mast cell tumor found in the gastrointestinal tract, prepuce, paw, or around the anus has a guarded prognosis. Tumors that have spread to the lymph nodes or other parts of the body have a poor prognosis. Any dog showing symptoms of mastocytosis or with a grade III tumor has a poor prognosis. Boxers have a better than average prognosis because of the relatively benign behavior of their mast cell tumors.

## Mast cell tumors in cats

[Siamese cats](#) are at an increased risk for mast cell tumors. Gastrointestinal and splenic involvement is more common in cats. Diagnosis and treatment are similar to the dog. The prognosis for solitary skin tumors is good, but guarded for tumors in other organs.

## References

- Morrison, Wallace B. (1998). *Cancer in Dogs and Cats* (1st ed.). Williams and Wilkins. ISBN 0-683-06105-4

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# Onychectomy

**Onychectomy** is the act of surgically removing the nails, or claws, most often of a household [cat](#), though occasionally of other animals such as circus lions or dancing bears. This process involves amputating the ends of the digits under anaesthesia, and is popularly known as *declawing*.

The incidence of declawing varies widely from country to country. In the United States and Canada, it is widespread, although precise figures are hard to come by and there is considerable variation within North America. It is a controversial subject, and often causes heated debate between those who believe it is cruel and that owners who declaw are putting the health of their furniture before that of their cat, and those who argue that declawing is better option in some cases than sending a cat to a shelter where it may be [euthanised](#). A few places, such as West Hollywood, have outlawed the practice entirely, but this is not a common occurrence.

In the United Kingdom, declawing is extremely uncommon, to the extent that most people have never seen a declawed cat. The procedure is considered cruel by almost all British veterinarians, who refuse to perform it except for medical reasons. The "Mutilations report" found in an annex of the Royal College of Veterinary Surgeons's *Guide to Professional Conduct* states:

This procedure is only acceptable where, in the opinion of the veterinary surgeon, injury to the animal is likely to occur during normal activity. It is not acceptable if carried out for the convenience of the owner ... the removal of claws, particularly those which are weight-bearing, to preclude damage to furnishings is not acceptable.

In many European countries, it is forbidden under the terms of the European Convention for the Protection of Pet Animals, unless there is a medical indication for the procedure, or a veterinarian considers it beneficial to the animal. Some European countries go further, such as Germany and Switzerland, where declawing cats is always illegal under their laws against cruelty to animals.

In Australia, legislation concerning animal welfare is enacted at the state level and is highly inconsistent. There are ongoing efforts to develop a National Animal Welfare Act; in its current state, the bill would prohibit the declawing of cats except for medical reasons. However, some pro-wildlife campaigners advocate declawing (and possibly defanging) to protect native wildlife from pet cats.

One popular, relatively inexpensive alternative to declawing is the application of vinyl nail caps (marketed in the US as Soft Paws® or Soft Claws®) that are affixed to the claws with nontoxic glue, requiring periodic replacement when the cat sheds its claw sheaths (usually every four to six weeks).

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# Parvovirus

Group: Group II (ssDNA)  
 Family: *Parvoviridae*  
 Genus: *Parvovirus*  
 Species: *Canine minute virus*,  
*Canine parvovirus*, *Chicken parvovirus*, *Feline panleukopenia virus*, *Feline parvovirus*, *HB virus*,  
*H-1 virus*, *Kilham rat virus*, *Lapine parvovirus*, *LUIII virus*, *Mice minute virus*, *Mink enteritis virus*, *Mouse parvovirus 1*, *Porcine parvovirus*, *Raccoon parvovirus*, *RT parvovirus*, *Tumor virus X*

**Parvovirus**, commonly called **parvo**, is a genus of the Parvoviridae family of DNA viruses. Parvoviruses are some of the smallest viruses found in nature (hence the name, from Latin *parvus* meaning small). Like all members of the parvoviridae family, they infect only mammals.

Parvoviruses can cause disease in some animals. For example, Canine parvovirus is a particularly deadly disease among young puppies, causing gastrointestinal tract damage and dehydration as well as a cardiac syndrome in very young pups. Mouse parvovirus 1, however, causes no symptoms but can contaminate immunology experiments in biological research laboratories. The most accurate diagnosis of parvovirus is by ELISA. Dogs and [cats](#) can be vaccinated against parvovirus.

Many types of mammalian species have a strain of parvovirus associated with them. A parvovirus tends to be specific about the taxon of animal it will infect. That is, a canine parvovirus will affect dogs, wolves, and foxes, but will not infect cats or humans.

Parvovirus B19, which causes fifth disease in humans, is a member of the Erythrovirus genus of Parvoviridae rather than *Parvovirus*.

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# Polyneuropathy

**Polyneuropathy in dogs and cats** is a collection of peripheral nerve disorders that often are breed-related in these animals. Polyneuropathy indicates that multiple nerves are involved, unlike mononeuropathy. Polyneuropathy usually involves motor nerve dysfunction, also known as **lower motor neuron disease**. Symptoms include decreased or absent reflexes and muscle tone, weakness, or paralysis. It often occurs in the rear legs and is bilateral. Most are chronic problems with a slow onset of symptoms, but some occur suddenly.

## Most common types of polyneuropathy

- **Birman Cat distal polyneuropathy** - This is an inherited disorder. Symptoms start at the age of 8 to 10 weeks, and include frequent falling and walking on the hocks. The prognosis is poor.
- **Botulism** - Symptoms include weakness, difficulty eating, facial nerve paralysis, and megaesophagus.

- **Dancing Dobermann disease** - This primarily affects the gastrocnemius muscle in Dobermanns. It usually starts between the ages of 6 to 7 months. One rear leg will flex while standing. Over the next few months it will begin to affect the other rear leg. Eventually, the dog is alternatively flexing and extending each rear leg in a dancing motion. Dancing Dobermann disease progresses over a few years to rear leg weakness and muscle atrophy. There is no treatment, but most dogs retain the ability to walk.
- **Diabetic neuropathy**
- **Distal symmetric polyneuropathy** - Symptoms include atrophy of the distal leg muscles and the muscles of the head, and rear limb weakness. There is no treatment and the prognosis is poor.
- **Dysautonomia** - This is primarily seen in cats. Symptoms include vomiting, depression, not eating, weight loss, dilated pupils, third eyelid protrusion, sneezing, slow heart rate, and megaesophagus. There is a poor prognosis and supportive treatment is necessary. Cats can recover, but it may take up to one year.
- **Giant axonal neuropathy** - This is a rare disease in the German Shepherd Dog. It usually becomes evident between the ages of 14 and 16 months. Symptoms include rear limb weakness, decreased reflexes, muscle atrophy, megaesophagus, and loss of bark. There is no treatment and a poor prognosis.
- **Hyperchylomicronemia or hyperlipoproteinemia** - This is a type of hyperlipidemia that is inherited in cats. Polyneuropathy is caused by stretching or compression of nerves near bone by xanthomas, which are lipid deposits. It can cause Horner's syndrome, facial nerve paralysis, and femoral nerve, tibial nerve, radial nerve, trigeminal nerve, or recurrent laryngeal nerve paralysis.
- **Hypertrophic neuropathy** - This is also known as **canine inherited demyelinative neuropathy (CIDN)** and is inherited in the Tibetan Mastiff. Symptoms usually start between the ages of 7 to 10 weeks, and include weakness, decreased reflexes, and loss of bark. There may be a poor gait or an inability to walk. There is no treatment and a guarded prognosis.
- **Hypoglycemia** - Polyneuropathy is especially seen in conjunction with insulinoma.
- **Myasthenia gravis**
- **Polyradiculoneuritis** - This is inflammation of the nerve roots. The most common type is **Coonhound paralysis**. This is similar to Guillain-Barré syndrome in humans. Coonhound paralysis seems to be secondary to a raccoon bite, probably due to some factor in the saliva. It can happen in other breeds of dogs, also. Symptoms start 7 to 11 days after the bite, and include rear leg weakness progressing rapidly to paralysis, and decreased reflexes. Severe cases will have a loss of bark, trouble breathing, and an inability to lift the head. There is a duration of 2 to 3 months for the disease. Treatment is proper nursing care, and the prognosis is good in mild cases. Polyradiculoneuritis can also be caused by toxoplasmosis.

- **Rottweiler distal sensorimotor polyneuropathy** - The symptoms include weakness of all four legs and decreased reflexes. The disease is gradually progressive. There is a possible treatment with corticosteroids, but the prognosis is poor.
- **Sensory neuropathies** - These are inherited conditions in dogs and cause an inability to feel pain and a loss of proprioception. Self mutilation is often seen. There is no treatment, and the prognosis is poor in severe cases.
- **Spinal muscular atrophy** - This occurs in dogs and is caused by the death of nerve cells in the spinal cord. This progressive disease has no treatment and a poor prognosis.
- **Tick paralysis** - This occurs in dogs; cats seem to be resistant. The cause is a neurotoxin in the saliva of certain species of adult ticks. *Dermacentor* species predominate as a cause in North America, while *Ixodes* mainly causes the disease in Australia. There is a gradual onset of symptoms, which include incoordination progressing to paralysis, changed voice, and difficulty eating. Death can occur secondary to paralysis of the respiratory muscles, but in North America there is a good prognosis once the ticks are removed. Recovery is usually in 1 to 3 days. In Australia, however, it is a more severe disease with cranial nerve effects, and death can occur in 1 to 2 days.
- **Toxic neuropathies** - The most common causes are vincristine, thallium, and lead.

## References

- Chrisman, Cheryl; Clemons, Roger; Mariani, Christopher; Platt, Simon (2003). *Neurology for the Small Animal Practitioner*(1st ed.). Teton New Media. ISBN 1-893441-82-2
- Ettinger, Stephen J.;Feldman, Edward C.(1995).*Textbook of Veterinary Internal Medicine*(4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3

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## Protothecosis

**Protothecosis** is a disease found in dogs, [cats](#), and humans caused by a type of mutant green algae that lacks chlorophyll. The two most common species are *Prototheca wickerhami* and *Prototheca zopfii*. *Prototheca* is found worldwide in sewage. Infection is rare despite high exposure, and can be related to a defective immune system.

The two main forms of protothecosis are cutaneous and disseminated. Cats are exclusively infected with the cutaneous, or skin, form. Symptoms include soft lumps on the skin of the ears, legs, feet, nose, and head. Infection usually occurs through a wound in the skin. The disseminated form is seen in dogs and humans. The algae enters the body through the mouth or nose and causes infection in the intestines. From there it can spread to the eye,

brain, and kidneys. Symptoms can include diarrhea, weight loss, weakness, inflammation of the eye (uveitis), retinal detachment, deafness, and seizures.

Diagnosis is through culture or finding the organism in a biopsy. Surgery is the treatment of choice for the cutaneous form. Treatment of the disseminated form is very difficult, although use of antifungal medication has been successful in a few cases. Prognosis for cutaneous protothecosis is guarded and depends on the surgical options. Prognosis for the disseminated form is grave.

## Reference

- Ettinger, Stephen J.; Feldman, Edward C.(1995).*Textbook of Veterinary Internal Medicine*(4th ed.). W.B. Saunders Company. ISBN 0-7216-6795-3

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# Rabies

Group: Group V ((-ssRNA)) Order: Mononegavirales Family: Rhabdoviridae Genus: *Lyssavirus* Species: **Rabies virus**

## Rabies

### ICD-10

A82

### ICD-9

071

**Rabies** (from a Latin word meaning *rage*) is a viral disease that causes acute encephalitis in animals and people. It can affect most species of warm-blooded animals, but is rare among non-carnivores. In unvaccinated humans, rabies is almost invariably fatal once full-blown symptoms have developed, but post-exposure vaccination can prevent symptoms from developing.

## Transmission and symptoms

The stereotypical image of an infected ("rabid") animal is a "mad dog" foaming at the mouth, but [cats](#), ferrets, raccoons, skunks, fox, coyotes and bats also become rabid. Squirrels, chipmunks, other rodents and rabbits are very seldom infected, perhaps because they would not usually survive an attack by a rabid animal. Rabies may also be present in a so-called 'paralytic' form, rendering the infected animal unnaturally quiet and withdrawn.

The virus is usually present in the saliva of a symptomatic rabid animal; the route of infection is nearly always by a bite. By causing the infected animal to be exceptionally aggressive, the virus ensures its transmission to the next host. Transmission has occurred via an aerosol through mucous membranes; transmission in this form may have happened in people exploring caves populated by rabid bats. Transmission from person to person is extremely rare, though it can happen through transplant surgery (see below for recent cases), or even more rarely through bites or kisses.

After a typical human infection by animal bite, the virus directly or indirectly enters the peripheral nervous system. It then travels along the nerves towards the central nervous system. During this phase, the virus cannot be easily detected within the host, and vaccination may still confer cell-mediated immunity to pre-empt symptomatic rabies. Once the virus reaches the brain, it rapidly causes an encephalitis and symptoms appear. It may also inflame the spinal cord producing myelitis.

The period between infection and the first flu-like symptoms is normally 3-12 weeks, but can be as long as two years. Soon after, the symptoms expand to cerebral dysfunction, anxiety, insomnia, confusion, agitation, abnormal behaviour, hallucinations, progressing to delirium. The production of large quantities of saliva and tears coupled with an inability to speak or swallow are typical during the later stages of the disease; this is known as "hydrophobia". Death almost invariably results 2-10 days after the first symptoms; the handful of people who are known to have survived the disease were all left with severe brain damage, with the recent exception of Jeanna Giese (see below).

## **The virus**

The Rabies virus is a Lyssavirus. This genus of RNA viruses also includes the Aravan virus, Australian bat lyssavirus, Duvenhage virus, European bat lyssavirus 1, European bat lyssavirus 2, Irkut virus, Khujand virus, Lagos bat virus, Mokola virus and West Caucasian bat virus. Lyssaviruses have helical symmetry, so their infectious particles are approximately cylindrical in shape. This is typical of plant-infecting viruses; human-infecting viruses more commonly have cubic symmetry and take shapes approximating regular polyhedra.

The Lyssaviruses are the only viruses known to travel along the nerves after infection. Biopsy shows typical "Negri bodies" in the infected neurons.

The Rabies virus has a bullet-like shape with a length of about 180 nm and a cross-sectional diameter of about 75 nm. One end is rounded or conical and the other end is planar or concave. The lipoprotein envelope carries knob like spikes, composed of Glycoprotein G. Spikes do not cover the planar end of the virion. Beneath the envelope is the membrane or matrix (M) protein layer which may be invaginated at the planar end. The core of the Virion consists of helically arranged ribonucleoprotein. The genome is unsegmented linear negative sense RNA. Also present in the nucleocapsid are RNA dependent RNA transcriptase and some structural proteins.

## **Prevention**

There is no known cure for symptomatic rabies, but it can be prevented by vaccination, both in humans and other animals. Virtually every infection with rabies was historically a death sentence, until Louis Pasteur developed the first rabies vaccination in 1886. Pasteur demonstrated its effectiveness by treating Joseph Meister, who had been bitten by a rabid dog.

Pasteur's vaccine consisted of a sample of the virus harvested from infected (and necessarily dead) rabbits, which was weakened by allowing it to dry. Similar nerve tissue-derived vaccines are still used today in developing countries, and while they are much cheaper than modern cell-culture vaccines, they are not as effective and carry a certain risk of neurological complications.

The human diploid cell rabies vaccine (HDCV) was started in 1967. Human diploid cell rabies vaccines are made using the attenuated Pitman-Moore L503 strain of the virus. Human diploid cell rabies vaccines have been given to more than 1.5 million people worldwide as of 2006. Newer and less expensive purified chick embryo cell vaccine, and purified Vero cell rabies vaccine are now available. The purified Vero cell rabies vaccine uses the attenuated Wistar strain of the rabies virus, and uses the Vero cell line as its host.

## **Post-exposure prophylaxis**

Treatment after exposure (known as post-exposure prophylaxis or "PEP") is highly successful in preventing the disease if administered promptly, within 14 days after infection. In the United States, the treatment consists of a regimen of one dose of immunoglobulin and five doses of rabies vaccine over a 28-day period. Rabies immunoglobulin and the first dose of rabies vaccine should be given as soon as possible after exposure, with additional doses on days 3, 7, 14, and 28 after the first. The vaccinations are relatively painless and are given in one's arm, in contrast to previous treatments which were given through a large needle inserted into the abdomen. In case of animal bites it is also helpful to remove, by thorough washing, as much infectious material as soon as possible. Since the development of effective human vaccines and immunoglobulin treatments the US death rate from rabies has dropped from 100 or more annually in the early 20th century, to 1-2 per year, mostly caused by bat bites, which may go unnoticed by the victim and hence untreated.

PEP is effective in treating rabies because the virus must travel from the site of infection through the peripheral nervous system (nerves in the body) before infecting the central nervous system (brain and spinal cord) and glands to cause lethal damage. This travel along the nerves is usually slow enough that vaccine and immunoglobulin can be administered to protect the brain and glands from infection. The amount of time this travel requires is dependent on how far the infected area is from the brain: if the victim is bitten in the face, for example, the time between initial infection and infection of the brain is very short and PEP may not be successful.

## **Pre-exposure prophylaxis**

Currently pre-exposure immunization has been in domesticated and wild animal populations. In the United States domestic dogs are required to be vaccinated. A new, orally active, genetically recombined virus vaccine for raccoon rabies awaits licensing by the U.S.

Department of Agriculture as of 2006. A gene that produces a protein in the rabies virus outer coat was inserted into a live vaccinia virus using recombinant DNA technology. When the modified vaccinia virus infects a wild animal, it produces the antigenic protein normally made by the rabies virus. The wild animal's body recognizes the protein as foreign, and the animal develops active immunity. The plan for immunization of wild populations involves dropping bait containing food wrapped around a small dose of the live virus. The bait would be dropped by helicopter concentrating on areas that have not been infected yet.

## Prevalence

More than 99% of all human deaths from rabies occur in Africa, Asia and South America; India alone reports 30,000 deaths annually. [\[1\]](#)

Dog licensing, killing of stray dogs, muzzling and other measures contributed to the eradication of rabies from Great Britain in the early 20th century. More recently, large-scale vaccination of cats, dogs and ferrets has been successful in combatting rabies in some developed countries.

Rabies virus survives in widespread, varied, rural wildlife reservoirs. However, in Asia, parts of Latin America and large parts of Africa, dogs remain the principal host. Mandatory vaccination of animals is less effective in rural areas. Especially in developing countries, animals may not be privately owned and their destruction may be unacceptable. Oral vaccines can be safely distributed in baits, and this has successfully impacted rabies in rural areas of France, Ontario, Texas, Florida and elsewhere. Vaccination campaigns may be expensive, and a cost-benefit analysis can lead those responsible to opt for policies of containment rather than elimination of the disease.

Rabies was once rare in the United States outside the Southern states, but raccoons in the mid-Atlantic and northeast United States have been suffering from a rabies epidemic since the 1970s, which is now moving westwards into Ohio. [\[2\]](#) The particular variant of the virus has been identified in the southeastern United States raccoon population since the 1950s, and is believed to have traveled to the northeast as the result of infected raccoons being among those caught and transported from the southeast to the northeast by hunters attempting to replenish the declining northeast raccoon population (Nettles VF, Shaddock JH, Sikes RK, Reyes CR. "Rabies in translocated raccoons". Am J Public Health 1979;69:601-2.). As a result, urban residents of these areas have become more wary of the large but normally unseen urban raccoon population. It has become the common assumption that any raccoon seen in daylight is infected; certainly the reported behavior of most such animals appears to show some sort of illness, and autopsies usually confirm rabies. Whether as a result of increased vigilance or just the normal avoidance reaction to any animal not seen in the course of day to day life, such as a raccoon, there have been no documented human rabies cases as a result of this variant. This does not include, however, the greatly increasing rate of prophylactic rabies treatments in cases of possible exposure, which numbered less than 100 persons annually in New York State before 1990, for instance, but rose to approximately 10,000 annually between 1990 and 1995. At approximately \$1500 per course of treatment, this represents a considerable public health expenditure. Raccoons do constitute approximately 50% of the approximately 8,000 documented animal rabies cases in the

United States (Krebs JW, Strine TW, Smith JS, Noah DL, Rupprecht CE, Childs JE. "Rabies surveillance in the United States during 1995". *J Am Vet Med Assoc* 1996;204:2031-44). Domestic animals constitute only 8% of rabies cases (*ibid.*), but are increasing at a rapid rate.

In the midwestern United States, skunks are the primary carriers of rabies, comprising 144 of the 237 documented animal cases in 1996. The most widely distributed reservoir of rabies in the United States, however, and the source of most human cases in the U.S., are bats. Nineteen of the 22 human rabies cases documented in the United States between 1980 and 1997 have been identified genetically as bat rabies. In many cases, victims are not even aware of having been bitten by a bat, assuming that a small puncture wound found after the fact was the bite of an insect or spider; in some cases, no wound at all can be found, leading to the hypothesis that in some cases the virus can be contracted via inhaling airborne aerosols from the vicinity of a bat or bats. For instance, the Centers for Disease Control and Prevention warned on May 9, 1997, that a woman who died in October, 1996 in Cumberland County, Kentucky and a man who died in December, 1996 in Missoula County, Montana were both infected with a rabies strain found in silver-haired bats; although bats were found living in the chimney of the woman's home and near the man's place of employment, neither victim could remember having had any contact with them. This inability to recognize a potential infection, in contrast to a bite from a dog or raccoon, leads to a lack of proper prophylactic treatment, and is the cause of the high mortality rate for bat bites.

In case of an attack by a possibly rabid animal, most states in the United States allow the killing of the attacking animal. Because a rabies diagnosis requires that the brain tissue be preserved, it is recommended that rabid animals are not to be shot in the head.

Australia is one of the few parts of the world where rabies has never been introduced. However, the Australian Bat Lyssavirus occurs naturally in both insectivorous and fruit eating bats (flying foxes) from most mainland states. Scientists believe it is present in bat populations throughout the range of flying foxes in Australia.

Many territories, such as the United Kingdom, Ireland, Hawaii, and Guam, are free of rabies (although there may be a very low prevalence of rabies among bats in the UK; see below).

## **Recently publicised cases**

### **Transmission by animal bites**

Several recently publicised cases have stemmed from bats, which are known to be a vector for rabies.

The United Kingdom, which has stringent regulations on the importation of animals, had also been believed to be entirely free from rabies until 1996 when a single Daubenton's bat was found to be infected with a rabies-like virus usually found only in bats - European Bat Lyssavirus 2 (EBL2). There were no more known cases in the British Isles until September 2002 when another Daubenton's bat tested positive for EBL2 in Lancashire. A bat conservationist who was bitten by the infected bat received post-exposure treatment and did not develop rabies.

Then in November 2002 David McRae, a Scottish bat conservationist from Guthrie, Angus who was believed to have been bitten by a bat, became the first person to contract rabies in the United Kingdom since 1902. He died from the disease on November 24, 2002.

In October 2004 a wild female brown bear killed one person and injured several others near the city of Brasov, Central Romania. The bear was killed by hunters and diagnosed with rabies. More than one hundred people were vaccinated afterwards.

In November 2004, Jeanna Giese, a 15-year old girl from Fond du Lac, Wisconsin, became one of only six people known to have survived rabies after the onset of symptoms, and the first known instance of a person surviving rabies without vaccine treatment. All of the other five received vaccination before symptoms developed. Giese's disease was already too far progressed for the vaccine to help, and she was considered too weak to tolerate it. Doctors at the Children's Hospital of Wisconsin in Wauwatosa, a suburb of Milwaukee, achieved her survival with an experimental treatment that involved putting the girl into a drug-induced coma, and administering a cocktail of antiviral drugs. Giese had symptoms of full-blown rabies when she sought medical help, 37 days after being bitten by a bat. Her family did not seek treatment at the time because the bat seemed healthy. Jeanna regained her weight, strength, and coordination while in the hospital. She was released from the Children's Hospital of Wisconsin on January 1, 2005.

## Transmission through organ transplants

Rabies is known to have been transmitted between humans by transplant surgery. The medical advisory web site Manbir Online notes "Under no circumstances should a cornea be transplanted from a donor, who died of an undiagnosed neurological disorder."

Infections by corneal transplant have been reported in Thailand (2 cases), India (2 cases), Iran (2 cases), the United States (1 case), and France (1 case). The CDC documents the case in France in 1980. Details of two further cases of infection resulting from corneal transplants were described in 1996.

In June 2004, three organ recipients died in the United States from rabies transmitted in the transplanted kidneys and liver of an infected donor from Texarkana. There are bats near the donor's home, but he did not mention having been bitten. The donor is now reported to have died of a cerebral hemorrhage, the culmination of an unidentified neurological disorder, although recipients are said to have been told the cause of death had been a car crash. Marijuana and cocaine were found in the donor's urine at the time of his death, according to a report in *The New England Journal of Medicine*. The surgeons

"thought he had suffered a fatal crack-cocaine overdose, which can produce symptoms similar to those of rabies. 'We had an explanation for his condition,' says Dr. Goran Klintmalm, a surgeon who oversees transplantation at Baylor University Medical Center, where the transplants occurred. 'He'd recently smoked crack cocaine. He'd hemorrhaged around the brain. He'd died. That was all we needed to know.' ... Because of doctor-patient confidentiality rules, doctors involved with this case would not talk about it on the record, but a few did say that no cocaine was found in the donor's blood, the E.R. doctors might have investigated his symptoms more aggressively instead of assuming he had overdosed. (Because no autopsy was done, doctors have not been able to establish whether the rabies or the drugs actually killed him.)" (*The New York Times Magazine*, July 10, 2005)

In February 2005, three German patients in Mainz and Heidelberg were diagnosed with rabies after receiving various organs and cornea transplants from a female donor. Two of the infected people died. Three other patients who received organs from the woman have not yet shown rabies symptoms. The 26 year old donor had died of heart failure in December 2004 after consuming cocaine and ecstasy. In October 2004, she had visited India, one of the countries worst affected by rabies world-wide. Dozens of medical staff were vaccinated against rabies in the two hospitals as a precautionary measure.

Associated Press reports that "Donated organs are never tested for rabies. The strain detected in the victims' bodies is one commonly found in bats, health officials said." According to CNN "Rabies tests are not routine donor screening tests, Virginia McBride, public health organ donation specialist with the Health Resources and Services Administration, said. The number of tests is limited because doctors have only about six hours from the time a patient is declared brain-dead until the transplantation must begin for the organs to maintain viability."

## Transport of pet animals between countries

Rabies is endemic to many parts of the world, and one of the reasons given for quarantine periods in international animal transport has been to try to keep the disease out of uninfected regions. However, most developed countries, pioneered by Sweden, now allow unencumbered travel between their territories for pet animals that have demonstrated an adequate immune response to rabies vaccination.

Such countries may limit movement to animals from countries where rabies is considered to be under control in pet animals. There are various lists of such countries. The United Kingdom has developed a list, and France has a rather different list, said to be based on a list of the *Office International des Epizooties* (OIE). The European Union has a harmonised list. No list of rabies-free countries is readily available from OIE.

However, the recent spread of rabies in the northeastern United States and further may cause a restrengthening of precautions against movement of possibly rabid animals between countries.

## Rabies and domestic skunks in the United States

Since there is no USDA-approved vaccine or quarantine period for skunks, pet skunks are frequently put down after biting a human.

The post-exposure rabies series must be administered to the bite victim before the disease progresses too far. For that reason, there has to be a means of determining whether the animal has rabies within a reasonable amount of time. Without a recognized quarantine period for skunks, there is no way of knowing how long to watch the animal for signs of the disease. That leaves no option but to kill the skunk and test its brain cells for rabies.

Owners have recently organized to campaign for USDA approval of a vaccine and quarantine period for skunks in the United States.

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## Raw Feeding

**Raw Feeding** is the practice of feeding pets, especially dogs, what is believed to be a species-appropriate diet largely consisting of uncooked meat. Practitioners often cite evidence that domesticated dogs have very similar gastrointestinal systems to wolves. Raw feeders are commonly opposed to commercial dog foods, which they believe to be harmful. There exist other moral, health and cost reasons as well.

One popular raw diet is the "Bones and Raw Food" model which includes non-meats and numerous supplements along with careful preparation and measuring. Another model is a "Whole Prey" diet which simulates the proportions of an actual prey animal in a pet's diet. This includes organ meat, heads, fur (and feathers and scales), skin, muscle, and bone, but no other supplements.

Proponents of raw feeding are often vehement in their belief of its superiority to a commercial diet as it affects the health, disposition and longevity of their pets. It is believed by many raw feeders that veterinarians (the majority of whom are opposed to raw feeding) are influenced by academic departments that rely upon funding from pet food companies and by their own desire to profit from selling special dietary commercial pet food.

Opponents of raw feeding cite the dangers of dental fractures, bacterial contamination, parasites, GI obstruction, and dietary imbalances.

Most, if not all, specific evidence that raw feeding is beneficial is anecdotal, limited to the experiences of a few authors and website maintainers.

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## Spaying and Neutering

**Spaying** and **neutering** are the respective processes of female and male animal sterilization, in order to keep them from producing offspring.

Unlike in humans, this usually includes (somewhat controversially) the entire removal of related major organs. While most agree on the advantages of sterilization itself, the necessity of the castration part is even now hotly debated.

The processes are sometimes referred to as castration, due to the removal of organs, although the term in itself specifically refers to the removal of the male testicles.

## Household pets

Most humane societies, [animal shelters](#), and rescue groups urge pet owners to have their pets "spayed or neutered" to prevent the births of unwanted and accidental litters, contributing to the overpopulation of animals.

In addition, the process has theoretical health benefits (uterine and testicular cancer or similar diseases are definitely ruled out, and hormone-driven diseases such as breast become a non-issue as well), and it may help to address behavioral issues that otherwise can result in animals being given up to shelters, abandoned or [euthanised](#). Obviously, the animals

lose their libido, and females no longer experience heat cycles. This is due to the great hormonal changes involved with both genders, and any neutering will definitely cause minor personality changes in the animal.

## Modern Non-surgical Alternatives

### Injectable

- Male dogs - "Neutersol" (Zinc gluconate neutralized by arginine). Cytotoxic; produces infertility by chemical disruption of the testicle.<sup>[1]</sup>
- Female mammals - "SpayVac" (purified porcine zona pellucida antigens encapsulated in liposomes - cholesterol and lecithin - with an adjuvant.) Produces infertility by inducing an immune response to the egg. <sup>[2]</sup>

### Other Methods

- Noninvasive vasectomy using ultrasound.<sup>[3]</sup>

## Females (spaying)

In female animals, spaying involves invasive abdominal surgery to remove the ovaries and uterus, rarely involving major complications. It is commonly practiced on household pets such as [cats](#) and dogs as a method of birth control, but is rarely performed on livestock. Possible complications include urinary incontinence and minor weight gain.

### Terms for the spayed

A specialized vocabulary in animal husbandry and -fancy has arisen for spayed females of given animal species:

- Sprite (ferret)
- Poulard (chicken)

## Males (neutering)

In male animals, neutering involves the removal of the testes, and is commonly practiced on both household pets (for birth control) and on livestock (for birth control, as well as to improve commercial value). It is often recommended in cases of undesirable behavior ("roaming, marking, aggression, and mounting") in domestic animals, but studies suggest that "the behavioral modification effects of surgical castration ... are far from absolute". Additionally, the utility of castration to prevent testicular and prostatic cancer appears to be limited: surgically castrated dogs display a markedly *increased* incidence of prostatic cancer, and the incidence of malignant testicular cancer in animals is very low.<sup>[4]</sup>

### Terms for the neutered

Neutered males of given animal species also have specific names:

- Barrow (pig)
- Bullock (cattle)
- Capon (chicken)
- Dinmont (sheep, goat)
- Gelding (horse)
- Gib (cat, ferret)
- Havier (deer)
- Hog (pig)
- Lapin (rabbit)
- Ox (cattle)
- Stag (primarily cattle)
- Steer (cattle)
- Wether (sheep)

## References

1. [^ Current Information on Prostate Disease, Testicular Neoplasia, and Undesirable Behavior in Male Dogs.](#) URL accessed on May 14, 2005.
2. [^ SpayVac.](#) URL accessed on Early, 2003.
3. [^ N.M. Fried, Y.D. Sinelnikov, B.B. Pant, W.W. Roberts, S.B. Solomon, \(December 2001\). Noninvasive vasectomy using a focused ultrasound clip: thermal measurements and simulations. Biomedical Engineering, IEEE Transactions on \*\*48\*\* \(12\): 1453-1459.](#)
4. [^ Current Information on Prostate Disease, Testicular Neoplasia, and Undesirable Behavior in Male Dogs.](#) URL accessed on May 14, 2005.

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## Tick

Kingdom:	Animalia		
Phylum:	Arthropoda		
Class:	Arachnida		
Order: <b>Acarina</b>			
Families			
Ixodidae-	Hard	ticks	
Argasidae- Soft ticks			

**Tick** is the common name for the small arachnids that, along with mites, constitute the order *Acarina*. Ticks are ectoparasites (external parasites), living by hematophagy on the

blood of mammals, birds, and occasionally reptiles and amphibians. Ticks are an important vector of a number of human and animal diseases.

## Characteristics

The major families of tick include the Ixodidae or hard ticks, which have thick outer shells made of chitin, and Argasidae or soft ticks, which have a membranous outer surface. Soft ticks typically live in crevices and emerge briefly to feed, while hard ticks will attach themselves to the skin of a host for long periods of time. Tick bites look like mosquito bites, but can also sometimes bruise or resemble a bullseye.

## Ticks as disease vectors

Hard ticks can transmit human diseases such as relapsing fever, Lyme disease, Rocky Mountain spotted fever, tularemia, equine encephalitis and several forms of ehrlichiosis. Additionally, they are responsible for transmitting livestock diseases, including babesiosis and anaplasmosis.

Diseases such as HIV/AIDS and malaria can be transmitted by soft ticks.

Generally, tick-borne diseases correspond to a specific tick-host combination, and are limited in their geographical extent.

According to the Rhode Island Department of Health, roughly 70% of people who develop Lyme disease catch it from ticks in their own yard[\[1\]](#).

## Location

Ticks are often found in tall grass, where they will rest themselves at the tip of a blade so as to attach themselves to a passing animal or human. It is a common misconception that the tick can jump from the plant onto the host. Physical contact is the only method of transportation for ticks. They will generally drop off of the animal when full, but this may take several days. Ticks contain a structure in their mouth area that allows them to anchor themselves firmly in place while sucking blood. Pulling a tick out forcefully may squeeze contents of the tick back into the bite and often leaves the mouthpiece behind, which may result in infection.

## Facts

- *Dermacentor variabilis*, the American dog tick, is perhaps the most well-known of the North American hard ticks.
- *Ixodes dammini*, the deer tick, is common to the eastern part of North America and is known for spreading Lyme disease.
- *I. pacificus* lives in the western part of the continent and is responsible for spreading Lyme disease and the more deadly Rocky Mountain spotted fever. It tends to prefer livestock as its adult host.

- In some parts of Europe, tick-borne meningoencephalitis is a common viral infection.
- Australian tick fauna consists of approximately 75 species, the majority of which fall into the Ixodidae, hard tick, family. The most medically important tick is the Paralysis tick, *Ixodes holocyclus*. It is found in a 20-kilometre band that follows the eastern coastline of Australia. As this is where much of the human population resides in New South Wales, encounters with these parasites are relatively common. Although most cases of tick bite are uneventful, some can result in life threatening illnesses including paralysis, tick typhus and severe allergic reactions.[\[2\]](#)

## Life cycle

### Deer (black-legged) tick

The deer (or black-legged) tick, and the related western black-legged tick, are the primary known transmitters of Lyme disease in the United States. Both are hard-bodied ticks with a two-year life cycle. Like all species of ticks, deer ticks and their relatives require a blood meal to progress to each successive stage in their life cycles.

The life cycle of the deer tick comprises three growth stages: the larva, nymph and adult. In both the northeastern and mid-western U.S., where Lyme disease has become prevalent, it takes about two years for the tick to hatch from the egg, go through all three stages, reproduce, and then die. A detailed description of this life cycle and the seasonal timing of peak activity, as they occur in these regions, is provided below.

#### Larva

Eggs laid by an adult female deer tick in the spring hatch into larvae later in the summer. These larvae reach their peak activity in August. No bigger than a newsprinted period, a larva will wait on the ground until a small mammal or bird brushes up against it. The larva then attaches itself to its host, begins feeding, and engorges with blood over several days.

If the host is already infected with the Lyme disease spirochete from previous tick bites, the larva will likely become infected as well. In this way, infected hosts in the wild (primarily white-footed mice, which exist in large numbers in Lyme-endemic areas of the northeast and upper mid-west) serve as spirochete reservoirs, infecting ticks that feed upon them. Other mammals and ground-feeding birds may also serve as reservoirs.

Because deer tick larvae are not born infected, it is believed that they cannot transmit Lyme disease to their human hosts. Instead, "reservoir" hosts, as mentioned above, can infect the larvae. Having already fed, an infected larva will not seek another host, human or otherwise, until after it reaches the next stage in its life cycle. It is not completely known whether larvae, in themselves, pose a threat to humans or their pets.

#### Nymph

Most larvae, after feeding, drop off their hosts and molt, or transform, into nymphs in the fall. The nymphs can remain active throughout the winter and early spring.

In May, nymphal activity begins. Host-seeking nymphs wait on vegetation near the ground for a small mammal or bird to approach. The nymph will then latch on to its host and feed for 4 or 5 days, engorging with blood and swelling to many times its original size. If previously infected during its larval stage, the nymph may transmit the Lyme disease spirochete to its host. If not previously infected, the nymph may become infected if its host carries the Lyme disease spirochete from previous infectious tick bites. In highly endemic areas of the northeast, at least 25% of nymphs have been found to harbor the Lyme disease spirochete.

Too often, humans are the hosts that come into contact with infected nymphs during their peak spring and summer activity. Although the nymphs' preferred hosts are small mammals and birds, humans and their pets are suitable substitutes. Because nymphs are about the size of a poppy seed, they often go unnoticed until fully engorged, and are therefore responsible for the majority of human Lyme disease cases.

## **Adult**

Once engorged, the nymph drops off its host into the leaf litter and molts into an adult. These adults actively seek new hosts throughout the fall, waiting up to 3 feet above the ground on stalks of grass or leaf tips to latch onto deer (its preferred host) or other larger mammals (including humans, dogs, cats, horses, and other domestic animals). Peak activity for adult deer ticks occurs in late October and early November. Of adults sampled in highly endemic areas of the northeast, at least 50% have been found to carry the Lyme disease spirochete.

As winter closes in, adult ticks unsuccessful in finding hosts take cover under leaf litter or other surface vegetation, becoming inactive when covered by ice and snow. Generally, winters in the northeast and upper mid-west are cold enough to keep adult ticks at bay until late February or early March but not when temperatures begin to rise. At this time, they resume the quest for hosts in a last-ditch effort to obtain a blood meal allowing them to mate and reproduce. This second activity peak typically occurs in March and early April.

Adult female ticks that attach to deer, whether in the fall or spring, feed for approximately one week. Males feed only intermittently. Mating may take place on or off the host, and is required for the female's successful completion of the blood meal. The females then drop off the host, become gravid, lay their eggs underneath leaf litter in early spring, and die. Each female lays approximately 3,000 eggs. The eggs hatch later in the summer, beginning the two-year cycle anew.

## **References**

- [Lyme Disease: Keeping Your Yard Tick-Free](#), Rhode Island Department of Health.
- Muma, Walter: [Lyme Disease: Nature Class - March 1997](#).
- Stafford, Kirby C. III: [Tick Bite Prevention](#), Connecticut Department of Public Health, Feb. 1999.

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# Trapezius Muscles

The **Trapezius muscles** are a set of muscles found in [cats](#). They are three thin flat muscles that cover the back, and to a lesser extent, the neck. They pull the scapula toward the mid dorsal line, anteriorly, and posteriorly.

## Clavotrapezius

The most anterior of the trapezius muscles, it is also the largest. Its fibers run obliquely to the ventral surface. Origin, superior nuchal line and median dorsal line, Insertion, clavicle, Action, draws the clavicle dorsal and towards the head.

## Acromiotrapezius

Acromiotrapezius is the middle trapezius muscle. It covers the dorsal and lateral surfaces of the scapula. Origin, neural spines of the cervical vertebrae, Insertion, In the metacromion process and fascia of clavotrapezius, Action, draws the scapula to the dorsal, and holds the two scapula together.

## Spinotrapezius

Spinotrapezius, also called thoracic trapezius, is the most posterior of the three. It is triangular shaped. Posterior to the acromiotrapezius and overlaps latissimus dorsi on the front. Origin, neural spines of the thoracic vertebra, Insertion, scapular fascia, Action, draws the scapula to the dorsal and caudal regions.

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## 6 Cat Types

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## American Keuda

The **American Keuda** (pronounced *KEW-da*) is a type of [cat](#). The Keuda type is currently under development to become a standardized breed. The roots of the breed are from a 1980s study called the "Kitten Evaluation Under Direct Assessment" which was meant to determine the characteristics which led to superior barn cats in the Southwestern United States. Barn cats gathered from the study area (Oklahoma, New Mexico, and Texas) were bred with each other to develop the breed.

The American Keuda has some pronounced similarities with the [Egyptian Mau](#) breed. It is an open and controversial question whether this reflects an Egyptian Mau contribution to their gene pool or whether cats with Mau-like traits are superior barn cats. In the latter case, these traits would be reinforced over time and would not necessarily require a Mau contribution to the gene pool. Since the Egyptian Mau itself was redomesticated from [feral](#) Egyptian cat populations in the mid-1950s, it may represent a superior feral cat type, closely reproduced in the deserts of the American Southwest in the Keuda, but with no direct genetic connection to that breed.

American Keuda cats share many physical similarities with the Mau, including body type and a belly flap, not seen in other breeds. Since the belly flap adaptation allows extra extension when running, and thus more speed, this would be a successful adaptation for any cat that needed speed, like a barn cat. Keudas also share a high level of intelligence and athleticism with the Mau, as well as speed and a love for warm conditions. One marked difference between the Keuda and the Mau is the wide diversity of appearance the Keuda displays. While some Keudas look strikingly like Maus, they may also look like a [Siamese](#), [Havana Brown](#), cats of other breeds or mixed breed cats. Keuda cats display a much wider variety of coat colors and patterns than do Maus.

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## Asian Semi-Longhair

The **Asian Semi-Longhair** is a [cat](#) breed similar to the *Asian Shorthair* except they have semi-long hair instead of short hair. These cats are also known by the name Tiffanie. They are recognised in any of the Asian Shorthair or Burmese colors and patterns. Like the Asian Shorthair, the breed was developed in Britain, and is not currently recognised by any U.S. Registries.

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## Bicolor Cat

A **bicolor cat** has white fur combined with fur of some other colour, for example black — in this case they are often referred to as a [tuxedo cat](#). Bicolours are found in many breeds as well as being common in [domestic longhair cats](#) and [domestic shorthair cats](#).

Bicolour occurs because there is a white spotting gene present along with a recessive allele of the agouti gene, which evens out the usual striped pattern of the colours of the coat. In contrast, tabby cats have an agouti gene that produces striping of the coat. The [Abyssinian](#) has agouti with dilution (ticked tabby), giving the appearance of even colour with colour-banded hairs.

A black-and-white bicolor cat is often known as a [tuxedo cat](#) or a Jellicle cat. To be considered a “[tuxedo](#)”, its black coloring should be solid through out, with white limited to the paws, belly, chest, throat, and possibly the chin. The tuxedo name is just that. It should appear as if the cat is wearing a tuxedo. Some owners attribute shy personalities to [tuxedo cats](#), particularly once they reach adulthood.

Another type of black-and-white bicolor cat is called a “cow cat” or “moo cat”. A cow cat doesn't have the solid black 'jacket' of the [tuxedo cat](#). Instead, it has big black patches over a mostly white body, often with a black mask over the head. Some owners attribute characteristics such as a love of water, big personalities and a playful nature to cow cats.

Black Mask Cats are another variant of the cow cat or [tuxedo cat](#), so called because they look like they are wearing a black mask over their head.

The [Turkish Van](#) (white and red) is one good example of a bicolor [breed](#).

## Gallery of bicolor "Tuxedo" cats

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## Domestic Longhair Cat

A **domestic longhaired cat** is the proper name for any [cat](#) with medium or long fur, if it is not a [pedigreed](#) member of a recognised [breed](#). They make excellent family pets for people who are prepared to give their coat the extra care it needs.

Domestic longhairs come in all the standard cat colours including [tabby](#), [tortie](#), [bi-coloured](#) etc. If their fur combines several shades of the same colour they may be referred to as a 'smoke'.

A longhaired cat is not able to maintain its own coat - they must be groomed for at least half an hour per day, and preferably bathed every week or two. The cat may not enjoy the

bathing process, but if it is bathed and groomed regularly from kittenhood it will accept it as a standard part of its routine.

Very long-haired cats do not make good outside animals, as their coats are extremely prone to matting. In extreme cases, the mats come to resemble wings, leading to stories of [winged cats](#).

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## Domestic Shorthaired Cat

A **Domestic shorthaired cat** (DSH) is the proper name for a shorthaired [cat](#) that does not have a [pedigree](#) or belong to a recognised [cat breed](#).

Domestic shorthaired cats are characterised by a wide range of colouring and typically 'revert to type' after a few generations, which means they express their coats as a [tabby](#). This can be any colour or combination of colours. They also exhibit a wide range of physical characteristics, and as a result, domestic shorthaired cats in different countries tend to look different in body shape and size, as they are working from differing gene pools. However, they are all recognizable as cats, and any male (tom) cat could successfully breed with any other female (queen), meaning they are the same species.

### See also

- [Cat coat genetics](#)
- [Domestic longhaired cat](#)

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## Farm Cat

**Farm cats** are [cats](#) used for catching pests on farms. They are [feral cats](#), meaning that they are wild and you should have caution around them. It depends on the farmer if they will be treated well, like with food and water, or just being there to do what they are supposed to do; lower the population of mice in the farms. If farm cats are treated well, they become very lovable. Many farms do treat their farm felines like family, but unfortunately, some farms don't. Farm cats are always lean in build, meaning that either they are starving and haven't been fed well, or they are always on the move by hunting.

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## Feral Cat

A **feral cat** is a [cat](#) which has been separated from domestication, whether through abandonment, loss, or running away, and become wild. The term also refers to descendants of such cats, but not to Wild Cats, whose ancestors were never domesticated. It's a common myth that feral cats usually cannot be re-socialized, even though it is difficult and not all cats will take to it. Feral kittens, however, can be much easier socialized to live with humans if they are taken from a feral colony before they are about twelve weeks old.

Feral cats may live alone, but are usually found in large groups called [feral colonies](#) with communal nurseries, depending on resource availability. Many abandoned pet cats join these colonies out of desperation; these cats can usually be readopted into a new home. The average life span of a feral cat that survives beyond [kittenhood](#) is usually less than two years while a domestic housecat lives an average of sixteen years or more.

## In the United States

Cityscapes and North America are not native environments for the cat; the domestic cat comes from temperate or hot, often dry, climates and was distributed throughout the world by humans. Although cats are somewhat adaptable, feral felines are unable to survive in extreme cold and heat, and with a need for a diet of 90% protein, few cats find adequate nutrition on their own. In addition, they have no defense against or understanding of such predators as dogs, coyotes and even automobiles. The current population of twenty to forty million feral felines in the United States is due, initially, to human interference by environmental introduction and later, by simple human irresponsibility and neglect.

In the United States Trap-Neuter-Return or TNR programs are facilitated by many volunteers and organizations. In addition to sterilization, inoculation against rabies and the feline leukemia virus as well as the application of long-lasting flea treatments before release are common. Frequently, attending veterinarians nip the tip off one ear to mark the feral as [spayed or neutered](#) and inoculated, as these cats will more than likely find themselves trapped again. Volunteers often continue to feed and give care to these cats throughout their lives. Many would like to do more, but most fully feral cats are unadoptable unless trapped and socialized before four months of age.

The TNR program is considered a humane, efficient way to deal with the problem of feral cats for several reasons. The wholesale removal of feral colonies by euthanasia is rarely effective, since new individuals move into the areas left by the removed animals almost immediately, and the blanket euthanasia of stray and feral cats has proven ineffective in controlling stray and feral overpopulation. TNR posits that, by providing basic care for a stable, neutered colony of feral cats, most of the problems associated with their presence can be eliminated or greatly reduced. As the existing cats are better fed and cared for, their lives are extended, and neutering stops the influx of kittens to replace adults dying from disease or starvation. This stable colony is less likely to compete for food or predate on local wildlife if it is fed regularly, and fighting with domestic pet cats, roaming, and other nuisance behaviours are greatly reduced by neutering.

By providing this basic support, caretakers insure that the resident colony will stabilize and prevent unknown new cats from moving into the neighborhood. As individuals in the colony die, new ferals move in to take their place, and can be trapped, neutered and

vaccinated as they appear. Over time, these stabilized feral colonies can become sources of enjoyment and pride to neighborhoods rather than nuisances. Given the choice between a colony of rapidly reproducing, starving, and diseased animals and a colony of neutered animals given basic healthcare, the desirable choice is obvious to all.

Recognizing the ineffectiveness of blanket euthanasia as a means of controlling stray and feral cat population, more and more animal shelters throughout the United States are becoming "no kill shelters", and are gradually implementing more humane and effective animal population control methods. Some states such as California and many countries around the world have had tremendous success with humane methods to control feral cat populations. A proposal in the state of Wisconsin to legalize the hunting of feral cats in an attempt to reduce their population was recently (April 2005) blocked by the state's lawmakers. South Dakota and Minnesota still allow wild cats to be shot.

There is no doubt feral cats will hunt other small animals. Some people see this as a problem in itself, due to the suffering and death inflicted on the prey. Others instead support the killing of mice, rats and other rodents, whom they perceive as pests. Many object to the killing of songbirds and other birds on conservation grounds. Some estimate the bird loss at over two hundred million a year. These figures may be questionable, however, with some of the damage due to the resurgence of other small predators such as the gray fox (*urocyon cinereoargenteus*), fisher or pekan (*martes pennanti*), coyote (*canis latrans*), and puma (*puma concolor*). The loss of species due to overbuilding of native habitat by humans far outstrips that lost to feral cat predation.

[\[1\]](#)

October 16 is National Feral Cat Day in the United States.

## In Australia

Feral cats have been present in Australia since European settlement, and may have arrived with Dutch shipwrecks in the 17th century. Intentional releases were made in the late 19th century in the hope that cats would control mice, rabbits and rats.

The feral cat has been an ecological disaster in Australia, inhabiting most ecosystems except dense rainforest, and being implicated in the extinction of several marsupial and placental mammal species but there is no proof to support this view. (Cats are not believed to have been a factor in the extinction of the only mainland bird species to be lost since European settlement, the Paradise Parrot; their role in the loss of rare species on Australasian islands, however, has been significant.) "Convincing evidence that cats exert a significant effect on native wildlife throughout the mainland is lacking" - Environment Australia

Folklore has it that some feral cats in Australia have grown so large as to cause inexperienced observers to claim sightings of other species, and subsequent news stories of mysterious animals being sighted. Typical locations for such sightings are south-west Western Australia, and the Nullabor.

Control programs are difficult to devise due to the nocturnal and solitary nature of feral cats, broad distribution in the landscape and continuous additions to the population from abandoned domestic cats. Due to the danger posed to humans handling the animal, captured

feral cats are almost always killed. Although trap neuter and return programs such as those in the United States are not prevalent in Australia, they are now being introduced in some urban and suburban areas such as Adelaide. More recently, such programs have been introduced in Sydney by the "World League for Protection of Animals".

## In Rome

Rome, Italy is perhaps the place with most feral cats, the total number being estimated between 250,000 and 350,000, organized in about 2,000 colonies, some of them living in famous ancient places such as the Colosseum.

## Feral cats and island restoration

Feral cats introduced to islands with ecologically naive fauna (that is, species that have not evolved or have lost predator responses for dealing with cats) have had a devastating impact on these islands' biodiversity. They have been implicated in the extinction of several species and local extinctions, such as the huitas from the Caribbean and the Guadalupe Storm-petrel from Pacific Mexico. Moors and Atkinson wrote, in 1984, "No other alien predator has had such a universally damaging effect." Given the damage they do, many conservationists working in the field of island restoration (literally restoring damaged islands through removal of introduced species and replanting and reintroducing native species) have worked to remove feral cats. As of 2004, 48 islands have had their feral cat populations removed, including New Zealand's network of offshore island bird reserves (Nogales et al, 2004). Larger projects are also being planned, including their removal from Ascension Island.

Feral cats, along with rabbits and some sea birds, are the entire animal population of the remote Kerguelen Islands in the southern Indian Ocean.

## Activism

Feral cats colonies often arise from stray or abandoned unneutered cats. The cats breed rapidly and have multiple-kit litters although relatively few kittens survive to breeding age. Often the owners do not have the capacity or desire to care for a large number of cats.

The conditions lived in by feral cats vary immensely. Some have short, dangerous, unhealthy, desperate lives, in deplorable conditions. Others are welcomed as working cats around factories and farms and while their lives not luxurious, some live well into their teenage years. <!-Cat Action Trust has encountered ferals up to 19 years old, record age for feral is 26 - Cats Protection League --> Because of the perceived dangers to humans, other species, and the cats themselves, and out of compassion toward the animals, many people, including celebrities such as Bob Barker, campaign to encourage people to spay and neuter their pets and support the humane control of feral cats.

A growing number of animal societies realise that feral cats are wild animals and should not be judged by pet animal standards. Where the cats perform a useful task or are not a

threat to the local ecology, the approach is to trap, neuter and return them to their own habitat, while removing any ill, injured or tameable individuals.

## References

- Tabor, Roger, Arrow Books (1983). *The Wild Life of the Domestic Cat*. ISBN: 0099312107
- Moors, P.J.; Atkinson, I.A.E. (1984). *Predation on seabirds by introduced animals, and factors affecting its severity..* In *Status and Conservation of the World's Seabirds*. Cambridge: ICBP. ISBN 0-946888-03-5.
- Nogales, Manuel *et al* (2004). *A review of feral cat eradication on islands. Conservation Biology*. **18** (2), 310-319. [\[2\]](#)

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## Maltese Cat

The name **Maltese cat** is often given to any solid grey or blue [cat](#) of indeterminate [breed](#).

There are several cat breeds that are always blue. These are the [Russian Blue](#), the [Chartreux](#) and the [Korat](#).

In literature, "The Maltese Cat" is the title of a short story by Rudyard Kipling. The story is about a polo match set in British Colonial India, told from the point of view of one of the ponies, a gray named The Maltese Cat.

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## Moggy

**Moggy** or **moggie** (plural **moggies**) in Commonwealth English is an affectionate term for a domestic [cat](#), but is also used as alternate name for a mongrel or mixed-breed [cat](#) whose ancestry and [pedigree](#) are unknown or only partially known. Because of this mixed ancestry and free-breeding, a moggy can either be very healthy, or, if from an inbred feral colony, genetically unsound and sickly. However, as feral colonies are often left without any form of human intervention and veterinary attention, the sickly generally do not live past kittenhood, leaving the colony as a whole healthy.

The origin of the word moggy is not a corruption of the word 'mongrel', as many believe. It was first recorded in 1911, and was possibly derived from *maggie*, *margie* or *mog*, all short forms of the female name Margaret. It is thought this was first used to describe an ungainly lumbering old cow, and it may even have been a minor rural English name for any cow; since 'moggy' was used in several 1800s English dialects as an 'affectionate name' for a cow. As rural people flocked to the cities during the latter part of the Industrial Revolution, it seems

likely that the cow *moggy* became *maggie*, applied as a term of abuse for a dishevelled old woman or older prostitute.

The origin is obviously confused, but as the early 20th century the streets of London became filled with very many unhealthy looking stray cats, it would have been natural to apply the term *moggy* to describe these unfortunate creatures.

In the United States, a more common term for "moggy" is "alley cat."

A non-feral moggy makes an excellent household pet.

*See also:*

- [domestic longhaired cat](#)
- [domestic shorthaired cat](#)

A **moggy minor** is a nickname for a Morris Minor automobile.

A **moggie** is also a slang term referring to a tablet or capsule of mogadon, the alternative name for nitrazepam.

In parts of Lancashire, the word moggy means 'mouse' not 'cat'.

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## Tabby Cat

**Tabby cats** are often mistaken as a certain [breed](#) of [cat](#). The term *tabby* actually refers to the stripes, dots and swirling patterns of the cat's coat. The tabby pattern is believed to be the original basic cat pattern, and the closest to their distant ancestors. Tabby coloration is found in many breeds of cat, as well as among the general '[moggy](#)' (mixed-breed or mongrel) population. When cats are allowed to breed randomly, the coloration of the population tends toward brown mackerel tabbies with green eyes, leading geneticists to believe that this is the common wild phenotype of the domestic cat.

The word comes from French *tabis*, which was earlier *atabis*, and in medieval Latin *attabi*. The initial origin of the word seems to be from the *Attabiyah* section of Baghdad where a type of striped silk was made that was later used to describe cats.

## Tabby colors and patterns

There are three tabby patterns that have been shown to be genetically distinct, classic, mackerel and ticked, and a fourth variation, spotted, that is still undergoing debate as to its cause. The color most recognizable as a tabby is called brown tabby in the US and black tabby in the UK. Technically it is a black cat with an agouti gene that causes the fur to break into patterns of black and brown. While the name "black tabby" is more correct, the brown tabby moniker is firmly established in the US and any change is doubtful. It is possible to have a black, blue, red, and cream in classic, mackerel, ticked and spotted patterns. Chocolate, cinnamon, lilac and fawn generally only appear in the ticked pattern, most commonly in the [Abyssinian](#) and [Somali](#) breeds.

The mackerel tabby pattern is the most common as the gene for this is dominant to the classic pattern. The mackerel pattern is what people commonly think of when they think of

tabby. It has vertical, gently curving stripes on the side of the body. The stripes are thin and may be continuous or broken into bars and spots on the flanks and stomach. Often, an "M" shape appears on the forehead. The [Maine Coon](#) breed often appears in brown mackerel tabby.

Classic (or blotched) tabbies have a similar pattern on the head of the cat, but the body markings are very different. They have a whorled and swirled pattern with thicker stripes that make what are referred to as "butterfly" patterns on their shoulders. The legs and tail are more heavily barred and the pattern is variable with respect to the width of the bands. [American shorthairs](#) are often exhibited in silver classic tabby.

The ticked tabby pattern produces hairs that have distinct bands of color on them, breaking the tabby patterning up into a salt-and-pepper appearance. However, ghost striping or "barring" can often be seen on the legs, face and belly. It is difficult to produce a cat with a solid ticked coat.

In order of genetic dominance, the ticked pattern is dominant to the mackerel pattern, which is dominant to the classic pattern. However, all of these patterns have been observed in random bred populations.

The spotted tabby may not be actual pattern, but a modifier that breaks up the tabby markings. The stripes of the mackerel pattern are broken to the extent that they appear as spots, rather than stripes.

Tabby patterns are dominant over all other patterns except for [white masking](#) and piebald white spotting or [bicolor](#). It is possible to have a tabby pattern exhibited in the color patches of a [tortoiseshell pattern](#). These cats are called torbies or tabby torties.

Many tabbies have a distinct 'M' marking on their forehead, which is the mark of the true tabby. There are several legends about where this came from, including one that the Virgin Mary bestowed an M on a tabby's head because the cat helped keep the baby Jesus warm. There is another legend to explain the M, where the prophet Mohammed bestowed the marking upon his beloved cat's brow after it warned him of danger. According to the legend, the M remains today to remind us of Mohammed's blessings upon cats.

## Gallery of tabby types

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## Tortoiseshell Cat

**Tortoiseshell** is a coloring found in [cats](#) caused by a combination of specific genetic traits. It is a mix of phaeomelanin based colors (red) and eumelanin based color (black, chocolate and cinnamon). The pattern results in a cat with patches of red and patches of black, chocolate or cinnamon. The size of the patches can vary from a fine speckled pattern to large areas of colour. Dilution genes may modify the coloring, lightening the fur to a mix of cream and blue, lilac or fawn. Occasionally silver or ginger [tabby](#) patterns are also seen (sometimes called "torbies"). Tortoiseshell also can be expressed in the [points](#) pattern. The

description "tortoiseshell" (also called 'calimanco' or 'clouded tiger' in North America) is correctly reserved for cats with coats that have no white markings, while those that are largely white with orange and black patches are described as **calico** (in the US) or **tortoiseshell-and-white** (in the UK). Tortoiseshells and calicos are not specific [breeds of cat](#). The tortoiseshell markings appear in many different breeds.

Coat coloration in cats is complex. The genes involved include the *Orange* gene, *O*, which in its dominant form, *XO*, produces orange fur, and in its recessive form, *Xo*, produces black fur.

For a cat to be calico, it must simultaneously express both of the two genes, *O* and *o*, which are located at the same location on the X chromosome. Males normally cannot do this: they can have only one allele, as they have only one X chromosome. Over 90% of tortoiseshell cats are females. Occasionally a male calico is born. These may have Klinefelter's syndrome, carrying an extra X chromosome, and will almost always be sterile or they may be a chimera resulting from the fusion of 2 differently coloured embryos.

The Spotting gene causes white patches to cover the colored fur. Although there is no genetic difference, the amount of white is artificially divided into *mittled*, *bicolour*, *harlequin* and [van](#), going from almost no white to almost completely white.

In normal female tortoiseshell cats and in Klinefelter males, the position of the patches depends on which X-chromosome is active in each cell and which is inactivated to become a Barr body.

The Calico Cat is the state cat of Maryland.

Tortoiseshell cats are often called torties.

## See also

- [Cat coat genetics](#)

## References

*Cats Are Not Peas: A Calico History of Genetics* - by Laura Gould, Copernicus Books, ISBN: 0387947965

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## Tuxedo Cat

A **tuxedo cat** is a [bicolor cat](#) with a white and black coat. Most tuxedo cats are also black mask cats, a common name for felines who, due to their facial coloration, look as if they are wearing a black mask over their eyes, and often over their entire head. To be considered a true tuxedo cat, the feline's coloring should consist of a solid black coat, with white fur limited to the paws, belly, chest, throat, and often the chin, although many tuxedo cats appear to sport goatees, due to the black coloration of their mandible -- that is, the lower jaw and chin.

The derivation of the term **tuxedo cat** is self-explanatory, as the animal appears to be wearing the type of black tie formal wear commonly known in the United States and Canada as a tuxedo. In the United Kingdom, the **tuxedo cat** is sometimes known as the "**Jellicle cat**", after the (fictional) tribe of black and white [cats](#) described by T.S. Elliot in Old Possum's Book of Practical Cats, which was first published in 1939.

Some owners attribute shy personalities to **tuxedo cats**, particularly once they reach adulthood. Others describe **tuxedo cats** as playful, loyal, and affectionate; albeit with definite boundaries and a propensity for spending at least part of the day secreting themselves in a hiding place, even when they do not share living space with other cats.

## See also

- [Bicolor cat](#)
- [Cat](#)
- [Domestic longhair cat](#)
- [Domestic shorthair cat](#)
- [Fictional cats](#)
- [Cat types](#)
- [Cat breeds](#)

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## Ussuri

The **Ussuri** is a rare natural breed of [cat](#) that originates from the region of the Amur river, Russia. It is reputed to be derived from natural hybrids with small wild cats known as "Amur Forest Cats" and "Amur Leopard Cats" (Asian Leopard Cat subspecies, the same species used in the Bengal breed). Semi-wild Ussuris then hybridised naturally with Siberians and European/Domestic Shorthairs. This hybrid origin is based on conjecture and their appearance.

The breed is rare even in its native Russia. A translated breed standard for this and other native breeds was published in the mid 1990s, but nothing has been heard since that time and its breed status is unclear. The Ussuri's numbers are dwindling due to interbreeding with local domestic cats and, without a breeding programme to preserve the strain, it will disappear. However, some other Russian minority cat breeds such as the Donskoy and Peterbald, whose standards were published in English at the same time, are now actively bred in the USA.

## Conformation

The ears often have "lynx" brushes. The body is muscular, but not massive. The neck is firm but not long. The legs are medium length, muscular and in proportion with firm, rounded paws. The tail has a rounded tip (like the European Wildcat).

## Color & Pattern

The color and modified tabby pattern is a distinctive feature of the breed. It has vertical solid or merged spots on the body with lines on the forehead and two or three bronzed lines on cheeks. There should be one or more solid or broken necklaces of bronzed tone on neck and chest.

Distinct lines are required on the legs with the upper part being of bronzed color and the lower part of ground color. The tail must be ringed and have a dark tip of ground color.

There is a dark dorsal stripe. The flank pattern consists of stripes, rings or spots on golden-brown or goldish-fawn background and bronzed buttons on the paler belly.

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# 7 Cats as Pets

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## Animal Euthanasia

**Euthanasia** (Greek, "good death") is the practice of killing a human or other animal, in a painless or minimally painful way, for merciful reasons, usually to end suffering. This article discusses non-human **animal euthanasia**; a separate article covers euthanasia in humans.

An animal is euthanized when it is killed in a manner deemed to be humane, and in the case of a pet, in accordance with the emotional needs of the owner. This process is commonly referred to by the euphemism "put to sleep".

It can be done with inhalant agents, noninhalant pharmacologic agents (administered by a lethal injection), and physical methods. Pets are almost always euthanized via lethal injection, typically a very high dose of a barbiturate anaesthetic such as pentobarbital. Unconsciousness, respiratory and cardiac arrest follow rapidly, usually within 30 seconds to several minutes later. Pet owners generally consider it to be a quick and peaceful death.

Pet and livestock owners might decide to do this when the animal is suffering significantly due to injury or terminal illness, is overly aggressive, or when the owner/guardian is no longer able to keep or care for the animal and is unable or unwilling to find a new home for it. Additionally, many stray and feral animals, in particular, cats, are euthanized due to the lack of adoptive homes. In this latter case, the simple presence of the animals may be considered objectionable by those who live or work nearby, and who trap the animals (or request the assistance of animal control services to do so) and surrender them to the local animal shelter.

Euthanasia is typically performed in a veterinary clinic or hospital, or in an animal shelter, and is usually carried out by a veterinarian, or a veterinary technician working under the vet's supervision. Note that euthanasia is performed at the discretion of the attending veterinarian, who may refuse an animal owner's request to euthanize if he or she feels it is not medically or ethically necessary (so-called "convenience" euthanasia).

Some in the animal welfare or animal rights movements consider the use of the term "euthanasia", with its connotation of being done to ease suffering, to be a misnomer when applied to the euthanasia of homeless (or soon-to-be homeless) animals that are otherwise healthy and free of behavioral disorders. Some breeders also kill puppies that do not conform to the standard of the dog breed to prevent the perpetuation of the perceived flaws or faults. Most modern breeders simply [spay or neuter](#) the animals and place them in homes as pets.

## Morality Debate

[Animal shelters](#) often euthanize animals when they can't find a home for them, typically after a standard period of time (ranging from several days to several weeks for unclaimed stray animals). Some consider this immoral and cruel; others believe that euthanasia is a less objectionable alternative to having unwanted animals go to unsuitable homes or having them live out their lives in shelters which generally do not have the funding to give unlimited numbers of animals proper care and exercise indefinitely. Behavioral unsuitability for adoption (ie, aggression, house-breaking, etc) is a major non-clinical reason for euthanasia in animal shelters.

So-called "no kill" shelters exist, some run by private animal welfare organizations while others are subsidized wholly or in part by local government agencies. These shelters make it official policy to never euthanize animals for non-medical reasons. Overcrowding, lack of adoptive homes and underfunding are recognized problems. Supporters consider these minor compared to the ethics of euthanasia they consider unnecessary.

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## Animal Shelter

**Animal shelters**, or what used to be known as **pounds or dog pounds**, are either governmental or private organizations that provide temporary homes for stray, surrendered, or abandoned pet animals. They most often house dogs and [cats](#). The animal is kept at the shelter until it is reclaimed by the owner, adopted to a new owner, placed with another organization, or [euthanized](#).

Unfortunately, resources are seldom adequate to support the large number of animals taken in by these organizations. As a result, animals that are not claimed by their owners, or that have temperament or health issues that cannot be corrected or treated within the resources of the organization, are often euthanized. Shelters that receive a disproportionate number of animals compared to available adopters may also euthanize animals because of space concerns.

A small number of shelters have chosen to be "no-kill" shelters, which support healthy and adoptable pets for the remainder of their lives or until they are adopted. However, as funding is limited, the number of animals that can be accepted by these organizations can be low, and some animals may not be accepted because of behavior or health concerns. "No-kill" shelters often do euthanize if they receive animals with these problems. There are no clear standards for assessing these issues, and so statistics cited about how many "adoptable" animals are euthanized or adopted can be meaningless. A poorly managed no-kill shelter may accept more animals than can be properly cared for and maintain animals in crowded and unsanitary conditions in much the same way as an animal hoarder.

Some people obtain their pets from pet stores. Millions of these pets are taken to shelters or abandoned when they get sick or are no longer wanted. Animal Welfare groups and volunteers are attempting to change that point of view by educating owners and potential

owners about the lifelong commitment involved in adopting an animal, how to be a responsible pet owner, about the large number of adoptable animals available at shelters, and about the often poor condition of pet shop pets.

Animal control agencies, or nonprofit organizations contracting for animal control duties, also enforce animal-related ordinances. Some animal shelters also provide low-cost [spaying and neutering](#) surgeries or veterinary care, behavior training or resources, "safe havens" for animals of abused spouses, or other services.

By contrast animal sanctuaries will look after animals for the rest of their natural life, without necessarily attempting to find them any other home. Some establishments combine the qualities of an animal shelter with those of a sanctuary.

An animal shelter can be started by anyone who has the commitment, time and desire to help homeless animals. There are many resources available to assist in establishing an animal shelter, sanctuary or animal foster home. If an organization chooses to qualify for 501(c)(3) non-profit status, there are certain criteria outlined by the Internal Revenue Service (United States) which must be met. Additionally, running a non-profit animal shelter requires good business practices and skills. The best method of determining if one has the capability to run an animal shelter is to volunteer their time at a local Humane Society or shelter facility. These organizations can be found through local yellow pages or a search on the Internet using your state or city name followed by "humane society" or "animal shelter".

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## Cat Flap

A **cat flap** (also known as a **doggie door** or **pet door**) is a hinged flap set into a door, wall or window to allow [cats](#), dogs, or other domestic pets to enter and exit a house on their own without needing a human to open the door. They are very popular with cat owners, many of whom like to encourage their cats' natural independence by letting them come and go at will — particularly in the United Kingdom where it is believed that about 90% of all cats (including [ferals](#)) have access to the outdoors, many of these via cat flaps ([\[1\]](#)). Flaps for most dogs must be bigger and therefore are often constructed differently; except in rural areas they tend to give access to fenced-in yards or gardens rather than the neighborhood at large.

The simplest are just weighted flaps, but these can have problems with wind blowing open the flap or making a rattling noise. A magnet on the flap addresses this issue by holding the door in place when not in use, but not so securely as to prevent access. Sometimes a flap will also have adjustable catches to restrict the opening of the flap in one direction or the other — for example to allow the animal to come in, but not go out again. More sophisticated flaps have electromagnetic catches that can detect a matching permanent magnet worn on the animal's collar and unlock the flap as the animal approaches, thus preventing any other animals using the flap to enter the house.

Devotees suggest a pet door should be set at a height so that the bottom of the opening is just a little lower than the belly of the animal when standing. Many animals prefer to use a

flap with a transparent flap, so that they can be sure there is nothing threatening outside before leaving the safety of the home.

The invention of the cat flap is often attributed to Sir Isaac Newton in the seventeenth century; this story, however, is usually related ([2], for example) without any sources to support it.

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## Cat Food

**Cat food** is a type of food specially engineered for the feeding of [cats](#).

Cats are carnivorous by nature and need many essential nutrients, such as [taurine](#), in their food. Commercial cat food contains these supplements, which is why other pet foods are not recommended for cats.

## Ingredients of Cat Food

Many popular brands of cat food are made from what would otherwise be waste products of the meat industry. Some cat experts claim that this practice, as well as the overly processed nature of dry cat food, is responsible for many of the age-related ailments of cats. Additionally, many major brand-name cat foods are primarily grain-based, often containing large amounts of corn or rice supplemented with meats and essential vitamins, and usually saturated with 'digest,' a euphemistic term for real or synthetic cat vomit, to attract the cat as cats are prone to re-eating previously swallowed and vomited foods.

Some less well-known pet food manufacturers offer more 'natural' formulas of cat food that contain fewer grains and by-products. A few pet food brands, such as Innova EVO, are even made without any grain products at all. Natural cat food brands are often claimed to have cuts of meat closer to those that humans eat, with some manufacturers offering meat that is claimed to be 'human grade'. Many brands of such cat foods are made from raw ingredients intended to provide nutrition as close as possible to the cat's natural diet. These brands generally include raw meat with organs, ground bone, some raw vegetables, and some dietary supplements.

Many pet owners feed cats homemade diets. These diets generally consist of some form of cooked meat or raw meat, ground bone, pureed vegetables, taurine supplements, and other vitamin supplements. Some pet owners use easily digested human vitamin supplements, and others use vitamin supplements specifically engineered for cats. Veterinarians sometimes recommend including Digestive enzyme supplements in a homemade diet.

Vegetarian cat food, made with no animal products, has been available for many years, and is aimed primarily at animal rights activists. Vendors of vegetarian cat food claim it is nutritionally sound in some cases, and in other cases the food is intended to be supplemented with other cat foods. Some veterinarians recommend against exclusively vegetarian diets for cats, as they must eat certain amino acids not found in vegetables to remain healthy.

Vegetarian cat food either includes these nutrients or the cat's food must be supplemented with them.

In some countries, feeding vegetarian food to cats may constitute not feeding an appropriate diet. If the cat requires veterinary treatment for dietary deficiencies, the owner risks action under animal care legislation.

## Forms of Commercial Cat Food

Store-bought cat food generally comes in either a kibble form, often called dry cat food, or a canned form. Very few brands of cat food come in semi-moist form, which is generally reserved for treats.

Dry food is generally sold in bulk, with a bag of dry food lasting days, months, or even years. Canned food generally comes in much smaller serving sizes, and common can sizes are 3oz, 5.5oz, and 13oz.

Many cat enthusiasts and veterinarians recommend a diet consisting largely or entirely of canned cat food. One of the reasons for this is the high water content of canned food, which is thought to be a healthful amount of water compared to the amount that cats will drink when eating dry food. Canned food also generally contains significantly less grain or other carbohydrate foods. This is thought to reduce the chances of [diabetes](#) and maintain a healthy weight. In general, most canned foods are formulated to resemble a cat's natural diet more closely than dry food, where the focus is often shelf life and price.

Other enthusiasts and veterinarians recommend a diet consisting mostly of dry food. Often this recommendation is based on the idea that cats must break apart dry foods with their teeth, which causes the food to scrape off dental calculus, although the degree of benefit this provides has been disputed in recent years.

Pet owners often prefer dry cat food due to the convenience and price. Dry cat food is generally significantly less expensive than canned cat food. Dry cat food can also be left out for the cat to eat at will over the course of several days, whereas canned cat food spoils or becomes unappetizing after several hours.

## Cat Food Nutrient Profiles

*Entire*

*section*

*ref.[\[1\]](#)*

Most pet owners have heard that it is better to feed their animals specially formulated food for pets rather than table scraps. An occasional treat is fine, but table scraps used to excess may unbalance a pet's diet. Purchasing pet foods labeled as "complete and balanced" can help ensure that your pet's diet is nutritionally adequate.

Cat foods labeled as "complete and balanced" must meet standards established by the Association of American Feed Control Officials (AAFCO) either by meeting a nutrient profile or by passing a feeding trial. The AAFCO's Feline Nutrition Expert (FNE) Subcommittee have established new nutrient profiles for "complete and balanced" cat foods. Cat Food Nutrient Profiles were established in 1992 and updated in 1995 to incorporate new scientific information.

The new nutrient profiles replaced the recommendations of the National Research Council ( NRC) as the AAFCO-recognized authority on feline nutrition. Cat foods labeled as "complete and balanced" based on the AAFCO Cat Food Nutrient Profile must meet all the nutrient minimum and maximum levels as established by the Subcommittee. The Subcommittee set these levels after considering the most current information on good nutrition for [cats](#). The profiles are designed to provide practical information for manufacturers of cat foods.

There are now two separate nutrient profiles -- one for *growth and reproduction* and one for *adult maintenance*, instead of just one for all lifestages. This allows cat foods made for adult [cats](#) only to contain lower amounts of some nutrients, eliminating unnecessary excesses. Also, maximum levels of intake of some nutrients have been established for the first time, because of concern that overnutrition, rather than undernutrition, is a bigger problem with many pet foods today.

The protocols for conducting the feeding trials for cat foods have also been updated. With these improvements, label reference to either the AAFCO nutrient profile or AAFCO feeding trials better assures the consumer of the validity of a "complete and balanced" claim. Endorsements, seals of approval, etc., from other organizations do not add assurances of safety and may be misleading.

The table below lists the AAFCO nutritional profiles for cat foods.

**It must be noted that the levels of nutrients are expressed on a *dry matter* basis, while the levels listed in the *guaranteed analysis* on the label are expressed on an *as fed* basis. To allow for meaningful comparisons, the *as fed* guarantees must be converted to *dry matter*. For a canned product that is 75 percent moisture (25 percent dry matter), multiply the guaranteed level times 4. For a 10 percent moisture dry product, multiply by 1.1.**

## Cat food brands

- Amì Cat (made by [AMÌ s.r.l.](#))
- Artemis (made by [Artemis Company](#))
- Bento-Kronen (made by [Versele-Laga nv](#))
- California Natural, Innova (made by [Natura](#))
- Cat Chow, Fancy Feast, Felix, Friskies, ProPlan, Tender Vittles (made by Ralston-Purina, owned by Nestlé)
- Chicken Soup for the Pet Lover's Soul (made by [Diamond Pet Foods](#))
- Eukanuba, Iams (made by [the Iams Company](#), owned by Procter & Gamble)
- Evolution (made by [Evolution Diet Pet Food Corporation](#))
- Felidae (made by [Canidae Corporation](#))
- Nutro (made by [Nutro Products, Inc.](#))
- PROPAC, SportMix (made by [Midwestern Pet Foods, Inc.](#))
- Royal Canin (mady by [Royal Canin USA, Inc.](#))
- Science Diet (made by [Hill's Pet Nutrition, Inc.](#))
- Solid Gold (made by [Solid Gold Health Products for Pets, Inc.](#))
- Wellness (made by [Old Mother Hubbard](#))

- Whiskas (made by Pedigree Petfoods, owned by Mars, Inc.)
- Wysong Pet Products (made by [Wysong Corporation](#))

## References

1. [▲ David A. Dzanis, D.V.M., Ph.D., DACVN Division of Animal Feeds, Center for Veterinary Medicine. \(November 1997\). \*SELECTING NUTRITIOUS PET FOODS.\* \(HTML\) INFORMATION FOR CONSUMERS. Food and Drug Administration - Center for Veterinary Medicine. URL accessed on 2005-01-20.](#)

## Further Information

- From the U.S. Food and Drug Administration - [Center For Veterinary Medicine](#)
  - [Pet Foods](#)
  - [Information For Consumers - FDA's Regulation Of Pet Food](#)
  - [Information For Consumers - Information On Marketing A Pet Food Product](#)
  - [Information For Consumers - Interpreting Pet Food Labels](#)
  - [Vegetarian Diets For Pets?](#)
- [The Vegetarian Society UK on considerations for a vegetarian feline diet](#)
- From [Max's House Feline Medical And Behavior Database](#)
  - [Feline Nutrition](#)
  - [Cat Food Nutrient Profiles](#)
  - [Dry food v/s canned \(wet\) food](#)
  - [Dispelling The Myth That Pets Are Used In Pet Foods](#)
- [Get The Facts - What's Really In Pet Food](#)

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## Cat Litter

**Cat litter** is one of any of a number of materials used in [litter boxes](#) to absorb moisture from [cat](#) feces and urine, which reduces foul odors such as ammonia and renders them more tolerable within human dwellings.

Several kinds of cat litter are commercially available, enabling consumers to decide which factors are most important. Some cat owners are concerned about litter being tracked throughout the house, while others may look for litters that are biodegradable. Absorbency and odor control are other considerations.

## Conventional litter

One of the first commercially available cat litters was *Kitty Litter*, invented in 1947 and marketed by Ed Lowe. This was the first use of clay as an absorbent; prior to this time sand

had been used in litter boxes instead. The new clay litter was more absorbent than sand, and its larger grain made it less likely to be tracked from the litter box.

## **Clumping litter**

Clumping litters were first developed in 1984 by biochemist Thomas Nelson. Most are made from granulated bentonite clay which clumps together when wet and form a solid mass separate from the other litter in the box. This solid clumped material can then be disposed of without changing the entire contents of the litter box often. However the entire contents should be changed on a regular basis to prevent buildup of bacteria, every four to six weeks is recommended. At the same time, the litter box itself should be disinfected. Approximately 60% of the cat litter market consists of clumping litter.

Some claim that clumping litters can be harmful to pets because if it is ingested or inhaled, it swells and solidifies inside them. For the same reason, it is not recommended to flush clumping litters down the toilet.

## **Silica gel litter**

Silica gel litter, a porous granular form of sodium silicate, has the highest absorbancy of any litter, and has excellent moisture and odor control. Opinion about this type of cat litter is sharply divided. Some praise its absorbency while others deplore the fact that it gives no warning when it is exhausted and the next cat to use the litter tray will leave a urine puddle at the bottom of the pan. It also tends to be extremely lightweight, as opposed to the heavier clay. Silica gel litter is shaped into irregular lumps (which some cats abhor) or into small beads that tend to roll under pieces of furniture.

## **Biodegradable litter**

Biodegradable litter materials are pellets made of recycled paper, wood shavings (primarily pine), wood, corn cobs, dried orange peel, or wheat bran. Some pet owners prefer these litters due to their (perceived) friendliness to the environment; others are attracted by the flushability of the litter. They tend to be more expensive than traditional clay litters, so cost is not a positive factor in their selection. However, most of these forms of litter are recycled from human usage and are thus re-using a waste product as opposed to drawing clay from litter mines.

## **Litter for dogs**

Although most dog-owners housebreak their pets, enough people train their dogs to use litter boxes that the Ralston Purina Company manufactures a dog litter under the brand name "Secondnature," which generates revenues of approximately ten million dollars a year.

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## Litter Box

A **litter box**, sometimes called a **sandbox**, is an indoor disposal box for [cats](#), rabbits, and other pets that are permitted free roam of a home but who cannot go outside to relieve themselves. It is filled with cat litter, a granular material that absorbs moisture and that is readily available from supermarkets and pet stores. "Clumping" litter forms clumps to absorb urine, which can easily be sifted out. Sand can also be used, although commercial litter is popularly considered superior, as it clumps better and is often treated with odor-masking chemicals that can reduce the unpleasant odors associated with a litter box, although the clumping and chemical additives are considered by some to be detrimental.

The most basic type of litter box is a plastic tray. More elaborate models are enclosed, which provide some privacy to the pet and better odor control, as well as keeping the litter out of sight. To facilitate emptying the litter box, plastic liners are available for purchase. These are placed in the litter box before putting in the litter. When the litter needs to be changed, the owner simply lifts the liner, ties the ends, and discards the liner with the dirty litter.

Recent developments in litter box technology have made further improvements to the emptying procedure, which can be the most unpleasant part of owning a litter box. Some models have electrically controlled combs that automatically scoop the dirty litter clumps out of the litter box into a sealed container after the animal has used it. Other models can be shaken to move all the dirty litter clumps into an easy-to-remove tray.

It is advisable to place the simple tray-type litter box on some newspaper, as most cats will kick some litter over the edge of the tray when using it.

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## Operation Kindness

**Operation Kindness**, founded in 1976 in Carrollton, Texas, is a 501(c)(3) non-profit organization and the oldest and largest no-kill [animal shelter](#) in the Dallas/Ft. Worth area. All their income is derived from donations from individuals and businesses, adoptions, fundraising events and the sale of pet-related merchandise.

An average of 150-200 animals are cared for daily, with 60-80 more animals placed in foster homes. *Operation Kindness* finds homes for 2,300 dogs and [cats](#) each year.

## Mission

The mission of *Operation Kindness* is to provide a caring, no-kill shelter for homeless or unwanted cats and dogs until they are adopted into responsible, loving families. They accomplish this by:

- Providing high-quality veterinary care to the animals in their shelter and in foster homes.

- Dedicating their efforts to finding caring, responsible families who will make a lifetime commitment to the animals they adopt.
- Educating the public about responsible pet care and the importance of spaying and neutering their pets.
- Participating in coalitions that share the goal of eliminating animal overpopulation and [euthanasia](#) as a means of animal control.

## Programs and services

### Adoptions

Potential adopters are thoroughly interviewed by trained adoption counselors so they can match people with pets that best meet their needs and ensure that the individual needs of each animal are met. Animals are vaccinated, given worming medication and checked for external parasites. Dogs are tested for [heartworms](#) and started on preventive if heartworm negative or treated if heartworm positive. Cats are tested for FeLV and FIV.

### Spay/Neuter

All animals adopted from *Operation Kindness* are spayed or neutered. *Operation Kindness* is a member of the *Spay Neuter Your Pet* (SNYP) coalition and distributes low-cost spay/neuter information to the public.

### Habitat for Hounds

*Operation Kindness* distributes donated dog houses for dogs in low-income neighborhoods who are living with inadequate or no shelter.

### Education

The *Operation Kindness* staff and volunteers frequently speak to community, school and youth groups to educate on pet overpopualtion, the importance of spaying/neutering pets, responsible pet care and kindness to animals.

### Nursing Home Visits

*Operation Kindness* staff and volunteers take dogs and cats to area nursing homes to visit with residents, providing them with flowers, friendship, the opportunity to cuddle with the animals and recall pets of their own.

### Donations

There are many ways to donate to *Operation Kindness*:

- **Automatic contribution:** money is withdrawn from a donor's checking account each month.
- **Special events:** donors holding special events (birthdays, scout meetings, etc.) can request that their guests bring cash donations or items the shelter needs for daily care of the animals
- **Volunteer:** people can volunteer their time at the shelter or become a foster home for animals.
- **Grocery shopping:** select grocery stores in the Dallas/Ft. Worth area donatate a percentage of sales when customers use their reward cards.
- **Old cars:** donate old cars.
- **Kids & Operation Paws:** elementary and middle school students sponsor a homeless animal at the shelter for a small donation.

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## Scratching Post

A **scratching post** is a wooden post covered in softer material that [cat](#) owners provide so their pets have an acceptable place to scratch. Cats have a natural urge to scratch: the action helps them remove old material from their claws, and they mark territory with scent glands in their paws. Indoor cats may be prevented from exercising this urge on furniture if they are provided with an acceptable scratching post.

The most common type of post consists of a wooden post, roughly 60 - 90 cm (24-36 inches) tall, covered in rough fabric or sisal. The post is mounted vertically in a wide base, which allows the cat to stretch upward on its rear legs and scratch freely without tipping it over. Surfaces vary: the post may be covered in sisal rope, upholstery fabric, or the jute backing of a piece of carpet. Many pet owners find they have to experiment with different surfaces to find one that their cats will scratch reliably. Other kinds of scratching posts are more elaborate, with several levels of horizontal platforms for climbing and cozy cave-like areas where cats may hide. Very tall ones are often called "cat trees." These may have a vertical tension rod that extends to the ceiling to provide extra stability.

Smaller scratching surfaces may consist of something as simple as a piece of carpet turned upside down, or a flat pad of woven sisal with a loop to allow it to hang from a doorknob. Others are made from corrugated cardboard.

Scratching posts may be purchased at most stores that carry pet supplies, but many people build their own.

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## 8 Fictional Cats

[Cats](#) and other felines have often been used as characters in literature and in other forms of media. This is a [list of fictional cats](#).

## Legendary, mythological and fairytale cats

- Bast (or Bastet), Egyptian goddess with the head of a cat; see also Sekhmet, Bast's guise as the goddess of lions
- "Chessie" of the Chesapeake and Ohio Railway (later Chessie System Railroad)  
*Sleep like a kitten and arrive fresh as a daisy on the C&O*
- The cat was the animal of Libera, the Roman mythological personification of Liberty, because it hates to be constrained
- Freya's horse-sized winged cats, who draw the Norse goddess's chariot
- Maneki Neko, the lucky beckoning cat of Japan
- Patripatan, the cat that climbed into the sky to give a good word for his human to the gods in South-East Asian Indian mythology
- *Puss in Boots*
- Dick Whittington's Cat

## Cats and felines in literature

Aineko, a talking robot cat in the "Accelerando" series of science-fiction short stories (and novel) by Charles Stross

Aslan the lion in The Lion, the Witch and the Wardrobe and other Narnia stories by C. S. Lewis

Bagheera the panther in Rudyard Kipling's The Jungle Book and The Second Jungle Book  
Behemoth(Begemot, Russian: 535>B), the huge, trolley-riding, Satanic black cat in Mikhail Bulgakov's The Master and Margarita

Belle Aude, La Bergère, Chatte Grise, Domino, Fanfare, Fossette, Jeune Bleue, Moune, Musette, La Noire, Poucette, La Toutouque, etc.—to mention just a few of Colette's felines  
Birdie, cat of forensic anthropologist Temperance Brennan in Kathy Reichs' novels  
"The Black Cat" in Edgar Allan Poe's short story, a study of the psychology of guilt  
Blackmalkin, Greymalkin, and Nibbins, witches' cats in The Midnight Folk by John Masefield

The Cat in the Hat by Dr. Seuss

The Cat with the fiddle who played hey-diddle-diddle in Tolkien's The Man in the Moon Stayed Up Too Late

Tolkien's poem named "Cat" usually known by its first verse: The fat cat on the mat  
The Cat That Walked by Himself in Rudyard Kipling's Just So Stories.

The Cat Who... mystery novels written by Lillian Jackson Braun and featuring the detective James Qwilleran and his two Siamese cats Koko and Yum-yum

The cat who ran away with the pudding string in the nursery rhyme Carbonel, King of the Cats, in Barbara Sleigh's Carbonel trilogy

The Cheshire Cat in Lewis Carroll's Alice's Adventures in Wonderland, based on the folk saying, "grinning like a Cheshire cat"

Chester, the cat in Bunnicula and sequels by James Howe

Church, the cat who comes back to life in Stephen King's Pet Sematary  
 Clarence, a pacifist library-dwelling cat who sleeps on the photocopier in Clarence the Copy  
 Cat by Patricia Lakin

C'Mell, a humanoid cat, one of the animal-derived 'underpeople' in stories by Cordwainer Smith

The Cowardly Lion, from the Wizard of Oz series Crookshanks, Hermione Granger's cat in the Harry Potter novels Damn Cat, hero of the Gordons' Undercover Cat, who returns from a nightly prowl with a kidnapped woman's bracelet around his neck...But where has he been? Later adapted as the Disney film That Darn Cat

Dinah, Alice's pet cat, featured in Lewis Carroll's Alice in Wonderland and his Through the Looking-Glass

Dragon, the farmer's cat in Robert C. O'Brien's Mrs. Frisby and the Rats of NIMH Edgewood Dirk, the "prism cat" in the Landover novels by Terry Brooks Eureka, Dorothy's cat in Dorothy and the Wizard in Oz, also known as the Pink Kitten Mrs Figg's cats in Harry Potter

Fireheart, Graystripe, Tigerclaw, and other feral cats in the Warriors saga by Erin Hunter. Francis the feline detective in the novels Felidae and Felidae on the Road by Akif Pirinçci Fritti Tailchaser, along with companions Eatbugs and Pouncequick and a host of both supporting feline characters and mythical felines in the Tad Williams novel, Tailchaser's Song.

The fiddle-playing cat in the nursery rhyme where the cow jumped over the moon The cat and her kittens in the traditional song "Froggy would a-wooing go" Galia Tyranth in The Kingdoms and the Elves books by Robert Stanek rides a giant cat called a king cat. She is one of many Cat Patrollers. Ginger, the yellow tomcat who kept shop with Pickles the dog in Beatrix Potter's Ginger and Pickles

Gingivere, Tsarmina's brother in the Redwall book Mossflower who helped the woodlanders free Mossflower from Tsarmina.

The Glass Cat, a cat made of glass in The Patchwork Girl of Oz Gobbolino in Gobbolino, the Witch's Cat by Ursula Moray Williams. Her other books with eponymous feline protagonists include:

Jeffy, the Burglar's Cat and The Nine Lives of Island Mackenzie Good Fortune, the cat who goes to heaven in the award-winning story by Elizabeth Coatsworth

Graybar, the black, mouse-hating stray cat in the book Ragweed by Avi and Brian Floca, part of the Poppy Books series.

Graymalk, Jill the Witch's familiar and accomplice of Snuff, from the novel A Night in the Lonesome October by Roger Zelazny. This is a variation on Grimalkin, the name of the witch's cat in MacBeth by Shakespeare (a graymalkin or grimalkin is an old or evil-looking she-cat) Greebo, a witch's cat (in Terry Pratchett novels: see Discworld characters) Guenhwyvar, Drizzt Do'Urdur's mystical black panther from R. A. Salvatore's "The Dark Elf Trilogy". (see Guenhwyvar (cat))

Gummitch the superkitten, in Fritz Leiber's Space-time For Springers

The Hungry Tiger, the Cowardly Lion's closest friend, introduced in Ozma of Oz I Am a Cat by Natsume Soseki, a cat describing his owner in Japan Itty in Hugh Lofting's Dr Dolittle's Return Jennie, of the Paul Gallico children's book Jennie, released in the U.S. as The Abandoned Jenny Linsky, a small black cat and her brothers, Checkers and Edward along with her cat friends Pickles, Florio and Macaroni from Esther Averill's children's books. Kater Murr (Tomcat Murr), in E.T.A. Hoffmann's "The Life and Opinions of Kater Murr" (1819-1821)

Kitty, the Ingalls family mouser in Laura Ingalls Wilder's Little House books Little Cats A through Z, from Dr. Seuss' The Cat in the Hat Comes Back Professor McGonagall who can shapeshift into a tabby cat in Harry Potter Beth March's kittens in Louisa May Alcott's Little Women Matroskin (Russian: 0B@>A:8=, from "0B@>A" (matros), "sailor"), in Eduard Uspensky's Uncle Fyodor, His Dog and His Cat Maurice, star of The Amazing Maurice and his Educated Rodents by Terry Pratchett Mehitable, from archy and mehitabel, a dialogue between a melancholy cockroach and a heedless cat, by Don Marquis Midnight Louie, 20 pound (9 kg) tomcat companion to (and fellow investigator with) amateur sleuth, Temple Barr, featured in a series of romantic mystery novels by Carole Nelson Douglas; occasionally assisted by his sire 3 O'Clock Louie, his Ma Barker ("my bite's worse than any dog's") and her 24th Street gang, his kit Midnight Louise, his goad Karma and his eyes and ears, on the street Sassafrass and over the street Ingram; introduce yourself with The Las Vegas Quartet, followed by Catnap, thenPussyfoot, then voyage from "Be" ta "Zed" ("A"? - don't ask - and beware the lethal Hyacinth). Minnaloushe, from William Butler Yeats' poem The Cat and the Moon. Mogget, a magical entity in the form of a cat, in the fantasy novels Sabriel, Lirael and Abhorsen by Garth Nix Mottyl, the cat in Not Wanted on the Voyage by Timothy Findlay Mrs Norris in Harry Potter Mrs. Murphy, a cat who helps her human, Mary Minor 'Harry' Haristeen, solve mysteries, in a series of novels by Rita Mae Brown. Her cat, Sneaky Pie Brown, is credited as co-author. O'lal, monitor of Earth in Alan Dean Fosters Cat-A-Lyst Orlando (The Marmalade Cat) is the eponymous hero of a series of illustrated children's books written by Kathleen Hale. Petronius Arbiter, Pete in Robert A. Heinlein's The Door Into Summer. Pixel in Robert A. Heinlein's novel To Sail Beyond the Sunset, and appearing briefly in other Heinlein stories. Despite the name of the book and Pixel's unique ability to cause an interdimensional cat-door to appear in any surface, the novel The Cat Who Walks Through Walls is not about Pixel. Pixel, the feline companion of P.C. O'Data in the syndicated comic strip PC and Pixel by Thach Bui. Powder, the albino Siamese from uncommon children's series Powder The Cat Pussy-Cat, the Owl's fiancée in Edward Lear's The Owl and the Pussy-Cat The pussycat who went to London to see the queen, in the nursery rhyme. Rhiow, Saash, and Urruah, and other feline characters of The Book of Night with Moon by

Diane Duane  
 Ribby, the cat who serves Duchess the dog a traumatizing pie in Beatrix Potter's The Pie and the Pan  
 Patty

Rotten Ralph, the very bad cat in Jack Gutos's book Pan  
 Sam The Cat Detective, main character of the Sam The Cat Mysteries.

Sampson in the Church Mice series by Graham Oakley  
 In reference to Schrödinger's Cat: Cat:  
 Schrödinger's Cat is a science fiction story by Ursula K. Le Guin in 1974.  
 The Schrödinger's Cat trilogy is the name commonly given to a trilogy of science fiction/conspiracy theory novels written by Robert Anton Wilson

Shere Khan the tiger in Rudyard Kipling's The Jungle Book and The Second Jungle Book

The Shy Little Kitten of the children's book written by Cathleen Schurr and illustrated by Gustaf Tenggren

Silversides, the white, mouse-hating cat in the book "Ragweed" by Avi and Brian Floca, part of the Poppy Books series.

Simpkin in Beatrix Potter's The Tailor of Gloucester

Spiegel, from Spiegel the Cat by Gottfried Keller

Squire Julian Gingivere, barn cat who Matthias me on his quest to find the legendary sword of Martin the Warrior in the novel Redwall.

Svartalf , a big black witch's familiar in Operation Chaos by Poul Anderson

The three little kittens who lost their mittens in the nursery rhyme

Tao, the Siamese cat from Sheila Burnford's novel The Incredible Journey.

Tiger the vegetarian cat and others in the movie An American Tail

Tigger in Winnie the Pooh

Tobermory the talking cat, protagonist of a short story by the satirist Saki (Hector Hugh Munro)

Tobias, a tall black talking cat with significant magical powers in the Tim and the Hidden People series by Sheila McCullough. Father of Sebastian, who is affectionate towards his "owner" Tim who saved him from drowning. Sebastian is a Strange One (neither part of the Hidden People nor a normal cat).

Tom Kitten, a curious but disobedient young cat in the children's stories "The Tale of Tom Kitten" and "The Roly Poly Pudding" by Beatrix Potter; also Tom's mother, Mrs. Tabitha Twitchit, and his siblings Moppet and Mittens.

Tug, the cat given by Ged to Alder to protect him from nightmares, in The Other Wind by Ursula Le Guin

"The Cats of Ulthar", who take revenge upon the murder of a kitten in H. P. Lovecraft's story of that name: from that day, it was forbidden to harm a cat in that city.

"The Unadulterated Cat" by Terry Pratchett and Joliffe Gray Mr. Underfoot in Robert A. Heinlein's Friday

Upgraded cats in Reginald Bretnor's "Genius of the Species" take over the Soviet Union

The main and supporting characters in the book series "Warriors" are all cats.

Wolsey, a {tabby} cat which travelled in Dr.Who's TARDIS during the Virgin Books Adventures

The yellow tom on the ship "Pound of Candles," who helped Little Pig Robinson escape being dinner, and who was engaged to a "snowy owl of Lapland," in Beatrix Potter's The Tale of

Little	Pig	Robinson
Zoom, in Tim Wynne-Jones' series of children's books, e.g. Zoom at Sea (ISBN 0-88899-021-9)		

## T. S. Eliot Cats

Cats from Old Possum's Book of Practical Cats by T. S. Eliot, in alphabetical order:				
Admetus				
Alonzo				
Augustus				
Bill			Bailey	
Bombalurina				
Bustopher			Jones	
Cat			Morgan	
Coricopat				
Demeter				
Electra				
George				
Gilbert				
Great	Rumpus		Cat,	The
Griddlebone				
Growltiger				
Grumbuskin				
Gus		(a.k.a.		Asparagus)
James				
Jellylorum				
Jennyanydots				
Jonathan				
Macavity				
Mr.			Mistoffeles	
Mungojerrie				
Munkustrap				
Old			Deuteronomy	
Oopsa	Cat	(aka	James	Buz-James)
Peter				
Plato				
Quaxo				
Rum	Tum		Tugger,	The
Rumpelteazer	(Note: spelled	"Rumpleteazer"	in	musical)
Skimbleshanks				
Tumblebrutus				
Victor				

## Cats in books by Andre Norton

Cats	and	felines	abound	in	books	by	Andre	Norton
The			Beast					Master
Lord			of					Thunder
Beast			Master's					Ark
Beast			Master's					Circus
Catseye								
Gate		of		the			Cat	Cat
The		Mark		of		the		
Fur							Cat	Magic
Octagon	Magic	with	Sabrina,	the	black		cat	Ka'at
Star								World
Star			Ka'at				People	
Star	Ka'at	and		the	Plant			Warriors
Lura	the	cat	Daybreak:2250	A.D.	(aka	Star	Man's	Son)
Also,	in	in	anthologies	compiled	by	Andre	Norton	
Noble		Sci-Fi		-			CATFANTASTIC	
Hob's		Pot		-		CATFANTASTIC		II
Noble	Warrior	Meets	With	a	Ghost	-	CATFANTASTIC	III
Noble	Warrior,	Teller	of	Fortunes		-	CATFANTASTIC	IV
Noble	Warrior	and	the	Gentleman		-	CATFANTASTIC	V
Three-Inch Trouble - A CONSTELLATION OF CATS								

## Cats and felines in plays

- The Andrew Lloyd Webber musical *Cats* which is based on the above poetry collection: *Old Possum's Book of Practical Cats* by T. S. Eliot, but introduces several additional characters, such as:
  - Asparagus (a.k.a. The Other Cat. Not the same as Gus: The Theatre Cat)
  - Carbuckety (Previously in London and Broadway productions. No longer there.)
  - Cassandra
  - Etcetera
  - Genghis (also spelled "Dschingis")
  - Grizabella
  - Jemima (a.k.a. Sillabub)
  - Pouncival
  - Tantomile
  - Victoria

## Cats and felines in film

Alex the Lion, in Madagascar animated movie (2005) The Aristocats - much of the cast of the Disney animated film Baby, the leopard in the Bringing Up Baby Mr. Bigglesworth, Dr. Evil's cat from the Austin Powers films, in homage to the unnamed cat of Bond's Blofeld Blofeld's unnamed cat from the James Bond movies, which has inspired a number of imitations and spoofs (see Mr Bigglesworth, Madcat, and Nero) The film Cats & Dogs postulates an ongoing war dating back to ancient times between cats and dogs. The most notable cat is a spoilt Persian called Mr. Tinkles who is also an evil genius. Cat, Holly Golightly's cat in Breakfast At Tiffany's Clovis, a shorthair tabby seen in the film Sleepwalkers Coco, the white Persian in Jungle 2 Jungle Cosmic Creepers, an ugly, suspicious-looking black cat in the 1971 Disney film Bedknobs and Broomsticks The Cowardly Lion in The Wizard of Oz That Darn Cat, Disney's adaptation of the book Undercover cat Elsa the lioness, raised by Joy Adamson in Born Free Figaro, of Disney's Pinocchio. Gatto, Mr D and Tweed in Cat City (Macskafogó) Jake, The Cat from Outer Space Jones, the cat in Alien King Leonidas of Naboombu, a lion, the world's greatest soccer player, also in Bedknobs and Broomsticks Kovu, Kiara, Zira, Nuka, Vitani and other lions in Disney's The Lion King II: Simba's Pride Leo the Lion, mascot of the Metro-Goldwyn-Mayer film studio. Major, the lion from the movie Napoleon and Samantha (1972) Midnight, an Egyptian Mau seen in the film Catwoman Milo in The Adventures of Milo and Otis Mr. Tinkles, the main cat villain from Cats and Dogs. Orion, from Men in Black Pearl, a Maine Coon cat seen in the film Assassins Pink Panther, movie eponym, cartoon character Puss-in-Boots, a cat with the voice of Antonio Banderas in Shrek 2. Pyewacket, the Siamese cat and witch's familiar in the romantic-comedy play and film Bell, Book and Candle Rademenes, the cat from Polish TV serial from 80's „Siedem {yczeD” (Seven Wishes) Rhubarb, a cat that inherits a professional baseball team from its owner, in the 1951 film Rhubarb, based on the novel by satirist and parodist, H. Allen Smith Si and Am, the two Siamese cats from Lady and the Tramp Simba, Nala, Mufasa, Scar, Sarabi, Sarafina and other lions in Disney's The Lion King Snowbell, the cat in the film version of Stuart Little Spot, Data's orange shorthair tabby seen in Star Trek: Generations and Star Trek: Nemesis (the original Spot seen in Star Trek: The Next Generation was a Somali) Tao, a Siamese cat in the 1963 film The Incredible Journey, based on the novel of the same title.

Sassy, a Himalayan cat in the 1993 remake of the 1963 film The Incredible Journey  
 Sebastain-cat in Josie and the Pussycats  
 Thackery Binx, the boy-turned-black-cat in Hocus Pocus  
 The unnamed cat that Don Corleone has in his lap in the first scenes in The Godfather  
 The unnamed cat seen in The Getaway (1972 and 1994 remake) with a hitman (Al Lettieri in the original, Michael Madsen in the remake)  
 The unnamed black cat that Neo sees a déjà vu of in The Matrix  
 The unnamed lions who eat the Three Stooges in the short subject You Nazty Spy, which ends with a burping lion wearing the Reichsführer's hat  
 Zoom, in Tim Wynne-Jones's series of children's books, e.g. Zoom at Sea (ISBN 0-88899-021-9)  
 Thomasina, the orange tabby cat who dies and comes back (a couple of times) in The Three Lives Of Thomasina, a 1964 Disney film.  
 The Ghost and the Darkness, two historical man-eating lions from the 1996 film of the same name.  
 Waffles the cat in Disney's Goof Troop

## Cats and felines in television

Annabelle and Eek from Eek!stravaganza  
 The Cat, character descended from cats played by Danny John-Jules in BBC TV sci-fi sitcom Red Dwarf (see Frankenstein, below)  
 Cagney, Elisa's cat in Disney's Gargoyles "Clarence, the cross-eyed Lion" from the TV series Daktari  
 Frankenstein, the pregnant cat Lister sneaks onboard the Red Dwarf  
 Henrietta cat and Daniel Tiger from Mister Rogers' Neighborhood  
 Iris, Catwoman's cat in Batman, the Animated Series  
 The killer kitties of The X-Files "Teso dos Bichos" episode  
 Kit (later human Katrina), the Halliwell witch-sisters' familiar in Charmed  
 Kitty, pet lion from the 1960s TV series The Addams Family  
 Lucky, the Tanners' cat in TV series ALF, who weekly escaped being devoured by the wisecracking Alien Life-Form  
 MADcat, Doctor Claw's pet cat in the cartoon Inspector Gadget.  
 Meow Mix Cat, commercial mascot for Meow Mix cat food.  
 Miss Kitty Fantastico, (deceased) pet cat of Willow and Tara in Buffy the Vampire Slayer  
 Morris, commercial mascot for 9 Lives Cat Food, voiced by John Irwin  
 Mrs. Slocombe's "pussy", an unseen character and the source of many innuendoes in Are You Being Served?  
 Neelix, Lieutenant Reginald Barclay's cat, from Star Trek: Voyager  
 Spot, pet cat of Data, from Star Trek: The Next Generation  
 Prince Myshkin, in the episode, "Stray Cat," from Noir (named after the main character in Dostoevsky's The Idiot).  
 Salem, talking black cat from the TV series (and comic book) Sabrina the Teenage Witch  
 Sizzle, a pet cat puppet on The Puzzle Place

Tony the Tiger, commercial spoketiger for the breakfast cereals Frosted Flakes and Frosties  
Vienna, Rigsby's cat in the sitcom Rising Damp

## Cats and felines in animation, comics and puppetry

Abraham de Lacy Giuseppe Casey Thomas O'Malley, O'Malley the alley cat from The Aristocats

Aeris, from the webcomic VG Cats  
Alice, also known as Admiral from the TV anime Stratos 4 Kat  
Apathy  
Atilla, the cat in the comic strip Mother Goose and Grimm  
Azrael, pet of Gargamel on the TV show The Smurfs  
Bagpuss, British TV cat  
Battlecat (aka Cringer) of He-Man and the Masters of the Universe  
Baudelaire in Phantom 2040 (obviously named after the French poet)  
Baron, The Cat Returns (Neko no Ongaeshi) 2002 Japanese animated film directed by Morita Hiroyuki and produced by Studio Ghibli.  
Big Cat, campus cartoon character often sighted in graffiti and newspaper columns  
Bill the Cat, mascot and presidential candidate in Berke Breathed's Bloom County  
Binka and friends.  
Black Pete, Disney cartoon character, originally the nemesis of Mickey Mouse then Goofy  
Brave Heart Lion, a Care Bear cousin  
Buchi, the cat in RahXephon  
Bucky Katt, cartoon cat from Get Fuzzy comic strip  
Buyo, Kagome's family's pet cat in InuYasha  
Captain Amelia, humanoid feline in Disney's Treasure Planet  
Catastrophe, villain in Spy Dogs  
Catbert, the evil human resources director in the Dilbert comic strip  
The Catbus, a living cat with the size, shape, and function of a bus, in the anime My Neighbor Totoro  
CatDog, star of the Nickelodeon TV show of the same name. See also List of fictional dogs  
Cat Jacob, a Swiss cat who provides his readers with a humorous little philosophical "poke" along their way.  
The Cattanooga Cats, singing group from Hanna-Barbera animated series  
Cat Town, a web-based 'show' by R. Noyes starring cats from CatPrin, a Japanese tailor for felines.  
Chaos, a Muppet cat on Sesame Park  
Chester, Minnie the Minx's cat in the British Beano comic  
Chococat a Sanrio character  
Choo-Choo Bear, the boneless and oozy pet cat of Davan, in the Something Positive comic  
Chubby Huggs, oversized, overaffectionate cartoon cat from Get Fuzzy comic strip  
Clarissee Cat, Flip's girlfriend in some animations by Eric W. Schwartz (Has also had a cameo in Sabrina Online) Very sharp hearing, in "The Dating Game" she can hear Flip nodding on the phone!

Claude Cat, Looney Tunes character  
 Courageous Cat, superhero friend of sidekick Minute Mouse  
 Custard, nemesis of Roobarb in the BBC cartoon series  
 Cyborg Kuro-chan, a robotic cat who is a spoof on Astro Boy  
 Danny, the main character in the movie Cats Don't Dance  
 Diego and the other sabertooth cats in Ice Age  
 Doraemon, a feline robot from future. From Japanese cartoon and animation series of the same title.

Evil The Cat (and occasionally a reverse clone, Good The Cat), one of the numerous nemeses of Earthworm Jim  
 Fat Cat, chief nemesis of the rodent heroes of Chip and Dale: Rescue Rangers  
 Fat Freddie's Cat in the Fabulous Furry Freak Brothers by Gilbert Shelton  
 Felina Furr/Alley-Kat-Abra, in Captain Carrot and his Amazing Zoo Crew  
 Felix the Cat, pioneer cartoon character  
 Fritz the Cat, creation of Robert Crumb, changed considerably by Ralph Bakshi in his cartoon, killed later in retaliation by Crumb  
 Furrball the Scaredy Cat; Tiny Toon Adventures character  
 Gaffer, backstage cat on The Muppet Show  
 From the comic strip, Garfield:  
 Arlene  
 Garfield  
 Nermal

Sam Spayed, the detective played by Garfield  
 Cast of animated film Gay Purr-ee  
 A Gata e O Gato (the female and the male cat), a couple in the comics by Laerte Coutinho  
 Gatomon, from Digimon. Although not technically a cat, she does appear and act like one.  
 Heathcliff, comic strip character  
 Hello Kitty, popular Japanese character marketed extensively by Sanrio  
 Henry's Cat  
 Hobbes, Calvin's pet stuffed tiger from the comic strip Calvin and Hobbes by Bill Watterson  
 Horse, the invincible tomcat from the comic strip Footrot Flats, by Murray Ball  
 Jasso-kissa  
 Jess, the eponymous Postman Pat's black and white cat of the title song in the BBC children's TV series  
 Jiji, the black cat in Kiki's Delivery Service  
 Mr. Jinks, featured with mice nemeses Pixie and Dixie in Hanna-Barbera's Huckleberry Hound Show  
 Kamineko, from Azumanga  
 Thomas Kemper, Tycho and Gabe's cat in Penny Arcarde, who has advanced computer skills and might even be an MSCE; he is named after the Thomas Kemper brand of soft drinks.  
 Kimba the White Lion  
 Kirara in InuYasha  
 Klas Katt, the main character in Swedish author Gunnar Lundkvists dark, existentialist comics  
 Konyako, a teenaged catgirl in the anime Edens Bowy, she is the niece of Miss Nyako, dictator

of Yuneas. Konyako's name is a contraction of "Koneko" (Japanese for "kitten") and "Nya" (Japanese for "meow"). Kuroneko-sama from the anime Trigun. Roughly translated, the name simply means Lord Black Cat.

Krazy Kat, surreal cartoon by George Herriman

Kyo Sohma, a boy who transforms into a cat when hugged by a member of the opposite sex in the anime/manga series Fruits Basket

Leo, from the webcomic VG Cats

Looshkin, the psychotic cat from the comic book Bear.

Lucifer, the cat in Disney's Cinderella.

Luna, Artemis and Diana in Sailor Moon

Madcat, Dr. Claw's pet, from cartoon series Inspector Gadget

Matroskin, from animated film Three from Buttermilk Village and its sequels

Mayaa, from Azumanga.

Meowth in Pokémon and its evolved form Persian.

Miss Nyako, a tuxedo-wearing catgirl who is the dictator of robot town Yuneas in anime Edens Bowy. Her name is a contraction of "Nya" (Japanese for "meow") and "Neko" (Japanese for "cat").

Meruru, the feline character in Tenkuu no Escalowne

Moggy Malone, an apparently "upper-class" cat from Roobarb and Custard Too.

Nero, a fluffy white caterpillar (but does the role of a cat), pet of the villainous toad Silas Greenback, from the cartoon series Danger Mouse—a spoof of Blofeld's cat (see above)

Nuku Nuku which is an android created in an effort to save a dying pet cat

Nya, Shia's companion cat from the TV anime Pita-Ten

Oggy, from Oggy and the Cockroaches

Omaha the Cat Dancer, erotic "furry" comic book character

Pasi, B. Virtanen's cat

Peekaboo from Rose Is Rose

Percival, the feline part in Sinfest's cat and dog duo

The Pink Panther, movie eponym, cartoon character

Plottigat, Disney cartoon character, an evil mad scientist who is an enemy of Mickey Mouse

Proud Heart Cat, a Care Bear cousin

Puar, a flying, shapeshifting cat from the Dragon Ball manga and anime

Pussyfoot, Looney Tunes character

Ragland T. Tiger, aka Rags, on Crusader Rabbit

Rajah, the pet tiger of Jasemine in Aladdin

Rhonda, a tiger in Kevin and Kell

Rita, part of the cat-dog couple Rita and Runt in Animaniacs

Rubbish, the star of Rubbish, King of the Jumble.

Ruff, of Hanna-Barbera's Ruff and Reddy

The Samurai Pizza Cats, cartoon characters

Scrapper, the one-eyed cat of Mrs. Wicket in the 2002 Mr. Bean animated series.

Scratchy in The Itchy & Scratchy Show, the show-within-a-show on The Simpsons

Sagwa and friends, Siamese cats

Shampoo, girl who transforms into a cat in the anime/manga series Ranma ½

Si and Am, the sinister and mischievous Siamese cats owned by Aunt Sarah in the film Lady and the Tramp  
 Snagglepuss, Hanna-Barbera TV cartoon character  
 Snowball (white) (deceased) and Snowball II (black), The Simpsons' house cats  
 Solange from 9 Chickweed Lane  
 Spider Jerusalem's two-headed chain-smoking alley cat, from Transmetropolitan  
 Spinner Sun, also known as Spi-chan from the TV anime Cardcaptors  
 Stimpy, from the cartoon series Ren and Stimpy  
 Streaky the Supercat, from Supergirl comics  
 SWAT Kats characters T-Bone, Razor, Calico Briggs, and other residents of MegaCat City  
 Sylvester the Cat; Warner Bros. cartoon character  
 Sylvester Jr; Sylvester's Son  
 Tabbe Le Fauve from the furry comic book, Xanadu  
 The Thundercats, cartoon characters who are feline humanoid aliens  
 Tom, from the cartoon series Tom and Jerry  
 Toonces, the driving cat (from Saturday Night Live)  
 Top Cat and his band of alley cats, Hanna-Barbera TV cartoon characters  
 Twisp, from Penny Arcade. Not to be confused with Catsby, Twisp's imp counterpart.  
 Ura in El-Hazard  
 Wannyan (a.k.a. Bow-Meow), the half-dog half-cat alien baby-sitter from the anime UFO Baby (a.k.a. Da! Da! Da!)  
 Wildcat, Donald Rooum's anarchist cat, featured in Freedom newspaper  
 Winston, the Janitor's cat in the Beano comic strip The Bash Street Kids  
 WWII ("World War II"), the infamous "cat next door" that keeps scratching up Snoopy's doghouse in Peanuts  
 Yuki, Yoko's cat in Beyond, a sequence in The Animatrix

## Cats in electronic/video games

Alley	Cat
Big the Cat, from Sonic	Adventure.
Blaze the Cat, from Sonic	Rush
Blinx: The time swrppring cat from Blinx:	The Time Sweeper
Bubsy	Bobcat
Cait Sith, from Final Fantasy VII	
Captain Nathaniel Claw, from Claw (computer game).	
CatBat, the Cat/Bat hybrid enemy from Wario Land 4.	
Catz, in the Petz virtual pets game.	
Delcatty, Skitty's evolved form from Pokémon	
Evil the Cat, one of many villians from the video game Earthworm Jim.	
Felicia, catgirl character from the Darkstalkers series.	
Gina, the weaponsmith in Revenant from Eidos Interactive and Cinematix Studios	
Katt Monroe from Star Fox 64/Lylat Wars.	
Links, an Office Assistant in Microsoft Office	

Myau, the Musk Cat and Party Member of Phantasy Star.  
Meowth, from Pok  mon  
Nifta, from Wizball  
Persian, Meowth's evolved form from Pok  mon  
Red XIII, from Final Fantasy VII  
Schr  dinger, a black cat that takes an interest in the Embryon tribe in Shin Megami Tensei:  
Digital Devil Saga 1 & 2  
Skitty, from Pok  mon  
Spitz, from Wario Ware  
Tango, in the Game Boy game Mega Man V/Rockman World 5

# Cats in song

"The Cat Came Back" (1893) by Harry S. Miller, tells of futile attempts to get rid of a big yellow cat:
But the cat came back the very next day.
The cat came back. They thought it was a goner,
But the cat came back; it just wouldn't stay away.
The song also inspired an animated cartoon short.
"Cat Black, the Wizard's Hat" by T. Rex
"I Bought Me a Cat" by Aaron Copeland
"I Am Your Cat" by Gong
"Tommy the Cat" by Primus
"Leave My Kitten Alone" by Little Willie John
"What's New, Pussycat?" by Tom Jones
"Year of the Cat" by Al Stewart
the unnamed cat in "Nobody's Moggy Now", by Eric Bogle
"Stray Cat Strut" by The Stray Cats - link
Moses, the cat in "Jessie" by Joshua Kadison
Cats, the
The Cat in the Window, sung by Petula Clark
"The cat's in the cradle and the silver spoon," in Harry Chapin's song Cat's in the Cradle
"Black Cat" by Janet Jackson from the 1989 album Rhythm Nation 1814
"Black Cat" by Gentle Giant from the album "Acquiring the Taste".
"Brownie the Cat" by The Brilliant Green
"Monsterpuss" by The Vaselines
"My Cat's Name Sam" by Jane's Addiction
"Lucifer" by Pink Floyd
"Smelly Cat", song made for TV Sitcom Friends
"Bike" by Pink Floyd
"Phenomenal Cat" by The Kinks
"Dude The Cat" by The Leaving Trains
"Delilah" by Queen from the 1991 album Innuendo, the song dedicated to Freddie Mercury's fave cat

"Cosmic Charlie" by the Grateful Dead  
 "Kittty" by The Presidents of the United States of America (band)

## Cats in science

Schrödinger's cat, hapless victim and lucky survivor of a thought experiment by Erwin Schrödinger illustrating the incompleteness of the theory of quantum mechanics (although Schrödinger himself is historical, the cat is the protagonist in a thought experiment and thus fictional). Surrounding this thought experiment, John Gribbin authored two books, *In Search of Schrödinger's Cat* and *Schrödinger's Kittens*.

## Cats and felines on the Internet and in IT

Mittens and Snowdrop, animated cats which star in a series of humorous animations at Matazone.co.uk

Neko, one of the first animated "screen toys," which "slept" on the screen and woke up when one moved the mouse, chasing the mouse cursor. Several Neopets characters resemble cats. The Mona mascots (including Giko Cat), starring in 2channel. "Longcat", BIKECAT and other cats that have become famous inside image forums such like 2chan, 4chan and iichan. These cats are considered part of the internet meme culture.

## See also

- [List of historical cats](#)  
[Home](#) | [Cats and Dogs](#) | [Cheshire Cat](#) | [Felix the Cat](#) | [Tom and Jerry](#)

## Cats and Dogs

*Cats & Dogs* is a 2001 comedy film directed by Lawrence Guterman about the relationships between [cats](#) and dogs.

## Working titles

- *Felines and Canines*
- *Fighting Like Cats and Dogs*
- *Like Cats & Dogs*

## Credits

- Director: Lawrence Guterman
- Writing credits: John Requa, Glenn Ficarra

## Cast

- Jeff Goldblum - Professor Brody
- Elizabeth Perkins - Mrs. Brody
- Alexander Pollock - Scotty Brody

## Voice only

- Tobey Maguire - Lou the Beagle
- Alec Baldwin - Butch
- Sean Hayes - Mr. Tinkles
- Susan Sarandon - Ivy

## Synopsis

A scientist (Jeff Goldblum) tries to create a serum that will cure dog allergies in humans. However, a group of [cats](#) led by Mr. Tinkles (Sean Hayes) reverse the formula to create one that causes dog allergies in humans. They then attempt to spread this allergen throughout the world via mice, who will invade homes through the sewers. Once this is completed, all humans will have dog allergies and therefore will no longer be able to live with dogs, which will enable the cats to rid the world of people and take over. Dog agents from the world's dog headquarters must stop the mice carrying the allergen before they enter the sewers.

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## Cheshire Cat

The **Cheshire Cat** is a [fictional cat](#) appearing in Lewis Carroll's Alice in Wonderland. It appears and disappears at will, engaging Alice in amusing but sometimes vexing conversation. The cat often points out philosophical points that annoy Alice.

At one point, the cat disappeared gradually until nothing was left but its grin, prompting Alice to remark that she had often seen a cat without a grin but never a grin without a cat. This has become a point of notability for the cat: most people remember it most strongly performing its vanishing act.

There are reports that Carroll found inspiration for the Cheshire Cat in a carving in a church in the village of Croft-on-Tees, in the north east of England, where his father had been rector. Another view is the cat is based on a gargoyle found on a pillar in St Nicholas Church Cranleigh, where Carroll used to travel frequently when he lived in Guildford. The cat is named after Carroll's home county, Cheshire. Others attribute it to a carving on the west face of the tower at St. Wilfrid's Church, Grappenhall Village Warrington, Cheshire.

Brewer's Dictionary of Phrase and Fable says grinning like a Cheshire cat is "an old simile, popularized by Lewis Carrol". Brewer adds, "The phrase has never been satisfactorily

accounted for, but it has been said that cheese was formerly sold in Cheshire moulded like a cat that looked as though it was grinning."

A more likely origin for the story concerns the cats that lived in the port of Chester. Until the late 1970s, a monument to the Cheshire Cat stood beside the River Dee, where there had formerly been a cheese warehouse. It was said that cats sitting on the dock would wait for the rats and mice to leave the ships transporting Cheshire cheese to London and were the happiest cats in the kingdom, hence their grins. The monument was destroyed when Copfield House, a house that stood on the site of the warehouse, was demolished in 1979.

The cat also makes appearances in other works based on *Alice in Wonderland*. For instance, he can be found in Disney's film version of the books, wearing pink and purple stripes and singing of the Jabberwocky in Sterling Holloway's memorable voice. American McGee's Alice features a tattooed, emaciated Cheshire cat who is Alice's constant companion and guide. The cat also appears in Jasper Fforde's novels about Thursday Next, in which it is the librarian of the great library in the book-world.

## Quotes

"Please, would you tell me," said Alice, a little timidly, ... "why your cat grins like that?"

"It's a Cheshire cat," said the Duchess, "and that's why."

The cat also uses logic to offer non-solutions to Alice's question:

"But I don't want to go among mad people," Alice remarked.

"Oh, you can't help that," said the Cat: "We're all mad here. I'm mad. You're mad."

"How do you know I'm mad?" said Alice.

"You must be," said the Cat, "or you wouldn't have come here."

Another example of this practice is presented when Alice asks for directions:

"... thought Alice, and she went on. "Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where –" said Alice.

"Then it doesn't matter which way you go," said the Cat.

"– so long as I get *somewhere*," Alice added as an explanation.

"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

From American McGee's Alice

- "Only a few find the way, some don't recognise it when they do, some don't ever want to."
- "Only the insane equate pain with success."
- "How fine you look when dressed in rage. Your enemies are fortunate that your condition is not permanent ... and you're lucky too. Red eyes suite so few." – A comment to Alice after the player finds a "rage box" (a power-up) for the first time.
- "Here's a riddle, when is a croquet mallet like a billy club? I'll tell you: whenever you want it to be."
- "52 pickup is a staple of juvenile humor, but when the deck slices and dices, it's no laughing matter."

- "Bravery and I are not on intimate terms. My natural curiosity is tempered with caution – thus I've lived long."

From Terry Pratchett:

- "Slowly, the grin disappeared, until nothing was left but the cat. This is nearly as scary as the other way around." (Regarding Greebo)

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## Felix the Cat

**Felix the Cat** is a cartoon character from the silent-film era. His black body, white eyes, and giant grin, coupled with the surrealism of the situations in which his cartoons place him, combined to make the Felix one of the most recognizable cartoon characters in the world. Felix was the first character from animation to attain a level of popularity sufficient to draw movie audiences based solely on his star power.

Felix's earliest origins remain disputed. Australian émigré, cartoonist, and film entrepreneur Pat Sullivan and American animator Otto Messmer have both claimed to be his creator, and evidence seems to back up both claims. Many historians, however, including John Canemaker, argue it was Messmer who ghosted for Sullivan. What is certain is that the [cat](#) emerged from Sullivan's studio, and cartoons featuring the character enjoyed unprecedented success and popularity in the 1920s. Paramount Pictures distributed the earliest films from 1919 to 1921. Margaret J. Winkler distributed the shorts from 1922 to 1925, the year when Educational Pictures took over the distribution of the shorts. In 1928, Education ceased releasing the Felix cartoons and several were reissued by First National Pictures. Copley Pictures distributed them from 1929 to 1930. He saw a brief three cartoon resurrection in 1936 by the Van Beuren Studios, but the glory of the old days had disappeared during the cat's short-lived stint in color and sound. Sullivan did most of the marketing for the character in the 1920s.

Felix exploded into American popular culture and enjoyed great success overseas as well. He got his own comic strip (drawn by Messmer), and his image soon adorned all sorts of merchandise. Jazz singers such as Paul Whiteman sang about him, and Felix even became the first image ever broadcast by any television transmitter. Nevertheless, the success was short-lived. The arrival of talking cartoons, particularly those of Walt Disney's Mickey Mouse, eclipsed the silent offerings of Sullivan and Messmer. A few talking Felix shorts produced by Sullivan's brother failed to win back audiences.

Television would prove the cat's savior. Felix cartoons began airing on American TV beginning in 1953. Meanwhile, Joe Oriolo, the new artist behind the Felix comic strip, gained the rights to feature Felix in a new series specifically for television. Oriolo introduced new characters, such as Poindexter and Rock Bottom, and he gave Felix a "Magic Bag of Tricks", which could shift into myriad shapes based on Felix's needs. Joe Oriolo's son, Don Oriolo, continues as Felix's caretaker today, and the cat has since starred in other television programs and in a feature film.

## Creation

On November 9, 1919, Master Tom, a character resembling Felix, debuted in a Paramount Pictures short entitled "Feline Follies". Produced by the New York City-based animation studio owned by Pat Sullivan, the cartoon was directed by cartoonist and animator Otto Messmer. It was a success and the Sullivan studio quickly set to work on producing another film featuring Master Tom. This second short was "The Musical Mews" (released November 16, 1919). It too proved to be successful with audiences. Paramount producer John King suggested that the cat ought to be renamed to "Felix", after the Latin words *felis* (cat) and *felix* (luck). So, by the third film, "The Adventures of Felix" (released on December 14, 1919), the cat had a new name. In 1924, animator Bill Nolan redesigned the fledgling feline, making him both rounder and cuter. Felix's new looks, coupled with Messmer's mastery of character animation, would soon rocket Felix to international fame.

The question of who exactly created Felix remains a matter of dispute. Sullivan stated in numerous newspaper interviews that he created Felix and did the key drawings for the character. On a visit to Australia in 1925, Sullivan told *The Argus* newspaper: "The idea was given to me by the sight of a cat which my wife brought to the studio one day." [1] Sullivan's statements are supported by his March 18, 1917 release of a cartoon short entitled "The Tail of Thomas Kat", more than two years prior to "Feline Follies". Both an Australian ABC-TV documentary screened in 2004, and an exhibition at the State Library of New South Wales in 2005, suggested that Thomas Kat was a prototype or precursor of Felix. However, few details of Thomas have survived. His fur color has not been definitively established, and the surviving copyright synopsis for the short suggests significant differences between Thomas and the later Felix. Whereas the later Felix magically transforms his tail into tools and other objects, Thomas is a non-anthropomorphized cat who loses his tail in a fight with a rooster, never to recover it.

Sullivan was the studio proprietor and — as is the case with almost all film entrepreneurs — he owned the copyright of any creative work by his employees. In common with many animators at the time, Messmer was not credited. After Sullivan's death in 1933, his estate in Australia took ownership of the character.

It was not until many years after Sullivan's death that Sullivan staffers such as Hal Walker, Al Eugster, and Sullivan's lawyer, Harry Kopp, credited Messmer with Felix's creation. They claimed that Felix was based on an animated Charlie Chaplin that Messmer had animated for Sullivan's studio earlier on. The down-and-out personality and movements of the cat in "Feline Follies" reflect key attributes of Chaplin's and although blockier than the later Felix, the familiar black body is already there (Messmer found solid shapes easier to animate). Messmer himself recalled his version of the cat's creation in an interview with animation historian John Canemaker: "Sullivan's studio was very busy, and Paramount, they were falling behind their schedule and they needed one extra to fill in. And Sullivan, being very busy, said, 'If you want to do it on the side, you can do any little thing to satisfy them.' So I figured a cat would be about the simplest. Make him all black, you know - you wouldn't need to worry about outlines. And one gag after the other, you know? Cute. And they all got laughs. So Paramount liked it so they ordered a series." Aside from Canemaker, the Messmer claim

is backed by noteworthy American historians such as Michael Barrier, Jerry Beck, Donald Crafton, David Gerstein, Leonard Maltin, and Charles Solomon.

Regardless of who created Felix, Pat Sullivan marketed the cat relentlessly while the unaccredited Messmer continued to produce a prodigious volume of Felix cartoons. He even began a comic strip in 1923 distributed by King Features Syndicate.

## Unprecedented popularity

When distribution from Paramount expired in 1922, Sullivan began distributing his cartoons through Margaret J. Winkler. Under Winkler, Felix's popularity soared to new heights.

By 1923, the cat was at the peak of his film career. "Felix in Hollywood", a short released during this year, plays upon Felix's popularity, as he becomes acquainted with such fellow celebrities as Douglas Fairbanks, Sr., Cecil B. DeMille, Charlie Chaplin, Ben Turpin, and even censor Will H. Hays. His image could be seen on clocks, Christmas ornaments, and as the first giant balloon ever made for Macy's Thanksgiving Day Parade. Felix also became the subject of several popular songs of the day. Even Paul Whiteman, the king of jazz himself, did a bit on the frisky feline. With the character's success also emerged a handful of new costars. These included Felix's master Willie Brown, a foil named Skiddoo the Mouse, Felix's nephews Inky, Dinky, and Winky, and his girlfriend Kitty.

Most of the early Felix cartoons mirrored American attitudes of the time. Ethnic stereotypes appeared in such shorts as "Felix Goes Hungry" (1924). Flappers were caricatured in "Felix Strikes It Rich" (1924). Felix even became involved in union organizing with "Felix Revolts" (1923). References to alcoholism and Prohibition were also commonplace in many of the Felix shorts, particularly "Felix Finds Out" (1924) and "Felix Woos Whoopee" (1930) to name a few. In "Felix Dopes It Out" (1924), Felix tries to help his Hobo friend who is plagued with a red nose. By the end of the short, the cat finds the cure for the sappy schnozzola: "Keep drinking, and it'll turn blue."

In addition, Felix was the first image ever broadcast by television when RCA chose a papier-mâché Felix doll for a 1928 experiment via W2XBS New York in Van Cortlandt Park. The doll was chosen for its tonal contrast and its ability to withstand the intense lights needed. It was placed on a rotating phonograph turntable and photographed for approximately two hours each day. After a one-time payoff to Sullivan, the doll remained on the turntable for nearly a decade as RCA fine-tuned the picture's definition.

Felix's great success also spawned a host of imitators. The appearances and personalities of other 1920s feline stars such as Julius of Walt Disney's Alice Comedies, Waffles of Paul Terry's Aesop's Film Fables, and especially Bill Nolan's 1925 adaptation of Krazy Kat all seemed to have been directly patterned after Felix.

Felix's cartoons were a hit with the critics as well. They have been cited as wonderfully imaginative examples of surrealism in filmmaking. Felix has been said to represent a child's sense of wonder, creating the fantastic when it is not there, and taking it in stride when it is. His famous pace—hands behind his back, head down, deep in thought—became a trademark that was analyzed and re-analyzed by critics around the world. Felix's expressive tail, which

could be a shovel one moment, an exclamation mark or pencil the next, serves to emphasize that anything can happen in his world.

## Felix as mascot

Given the character's unprecedented popularity and the fact that his name was partially derived from the Latin word for "happy", some rather notable individuals and organizations adopted Felix as a mascot. The first of these was a Los Angeles Chevrolet dealer and friend of Pat Sullivan named Winslow B. Felix who first opened his showroom in 1921. The three-sided neon sign of Felix Chevrolet, with its giant, smiling images of the character, is today one of LA's best-known landmarks, standing watch over both Figueroa Street and the Harbor Freeway. Others who adopted Felix included the 1922 New York Yankees and aviator Charles Lindbergh, who took a Felix doll with him on his historic flight across the Atlantic Ocean.

This popularity persisted. In the late 1920s, the U.S. Navy's Bombing Squadron Two (VB-2B) adopted a unit insignia consisting of Felix happily carrying a bomb with a burning fuse. They retained the insignia through the 1930s when they became a fighter squadron under the designations VF-6B and, later, VF-3. Early in World War II, a US Navy fighter squadron currently designated VF-31 replaced its winged meat-cleaver logo with the same insignia, after the original Felix squadron had been disbanded. The carrier-based night-fighter squadron, nicknamed the "Tomcatters," remained active under various designations continuing through the present day and Felix still appears on both the squadron's cloth jacket patches and aircraft, still carrying his bomb with its fuse that has yet to burn down.

## From silent to sound

With the advent of *The Jazz Singer* in 1927, Educational Pictures, who distributed the Felix shorts at the time, urged Pat Sullivan to make the leap to "talkie" cartoons, but Sullivan refused. Further disputes led to a break between Educational and Sullivan. Only when Walt Disney's *Steamboat Willie* made cinematic history as the first talking cartoon with a synchronized soundtrack did Sullivan see the possibilities of sound. He managed to secure a contract with First National Pictures in 1928. However, for reasons unknown, this did not last, so Sullivan sought out Jacques Kopfstein and Copley Pictures to distribute his new sound Felix cartoons. On October 16, 1929, an advertisement appeared in *Film Daily* with Felix announcing, Jolson-like, "You ain't heard nothin' yet!"

Unfortunately, nothing good was heard from Felix's transition to sound. The results were disastrous. More than ever, it seemed as though Disney's mouse was drawing audiences away from Sullivan's silent star. Not even entries such as the off-beat "Felix Woos Whoopee" or the Silly Symphonies-esque "April Maze" (both 1930) could regain the franchise's audience. Kopfstein finally cancelled Sullivan's contract. Subsequently, he announced plans to start a new studio in California, but such ideas never materialized. Things went from bad to worse when Sullivan's wife, Marjorie, died in March 1932. After this, Sullivan completely fell apart. He slumped into an alcoholic depression, his health rapidly declined, and his

memory began to fade. He could not even cash checks to Messmer because his signature was reduced to a mere scribble. He died in 1933, leaving his studio in shambles.

In 1935, Amadee J. Van Beuren of the Van Beuren Studios called Messmer and asked him if he could return Felix to the screen. Van Beuren even stated that Messmer would be equipped with a full staff and all of the necessary utilities. However, Messmer declined his offer and instead recommended Burt Gillett, a former Sullivan staffer who was now heading the Van Beuren staff. So, in 1936, Van Beuren obtained approval from Sullivan's brother to license Felix to his studio with the intention of producing new shorts both in color and with sound. With Gillett at the helm, now with a heavy Disney influence, he did away with Felix's established personality and made him just another funny-animal character of the type popular in the day. The new shorts were unsuccessful, and after only three outings Van Beuren discontinued the series.

## The cat's comeback

In 1953, Official Films purchased the Sullivan-Messmer shorts, added soundtracks to them, and distributed to the home movie and television markets. Messmer himself pursued the Sunday Felix comic strips until their discontinuance in 1943, when he began eleven years of writing and drawing monthly Felix comic books for Dell Comics. In 1954, Messmer retired from the Felix daily newspaper strips, and his assistant Joe Oriolo took over. Oriolo struck a deal with Felix's new owner, Pat Sullivan's nephew, to begin a new series of Felix cartoons on television. Oriolo went on to star Felix in 260 television cartoons distributed by Trans-Lux starting in 1958. Like the Van Beuren studio before, Oriolo gave Felix a more domesticated and pedestrian personality, geared more toward children, and introduced now-familiar elements such as Felix's Magic Bag of Tricks, a satchel that could assume the shape and characteristics of anything Felix wanted. The program is also remembered for its distinctive theme song written by Winston Sharples:

Felix the Cat,  
The wonderful, wonderful cat!  
Whenever he gets in a fix  
He reaches into his bag of tricks!

The show did away with Felix's previous supporting cast and introduced many new characters. These include the sinister, mustachioed Professor; his intelligent but bookish nephew Poindexter (with an IQ of 222); the Professor's bulldog-faced, bumbling sidekick Rock Bottom; an evil, cylindrical robot and "King of the Moon" named The Master Cylinder; and a small, unassuming and friendly Eskimo named Vavoom, whose only vocalization is a literally earth-shattering shout of his own name. These characters were performed by voice actor Jack Mercer.

Oriolo's plots revolve around the unsuccessful attempts of the antagonists to steal Felix's Magic Bag, though in an unusual twist, these antagonists are occasionally depicted as Felix's friends as well. The cartoons proved popular, but critics have dismissed them as paling in comparison to the earlier Sullivan-Messmer works, especially since Oriolo aimed the cartoons at children. Limited animation (required due to budgetary restraints) and simplistic storylines did nothing to diminish the series' popularity.

Today, Oriolo's son, Don continues to market the cat. In 1991, Felix starred in his first (and only) feature film, *Felix the Cat: The Movie*, in which he, the Professor and Poindexter visit an alternate reality. The film was a box-office failure. In 1995 to 1997, Felix appeared on television again, in an off-beat series called *The Twisted Tales of Felix the Cat*. Baby Felix followed in 2000 for the Japanese market and the direct-to-video *Felix the Cat Saves Christmas*. Oriolo has also brought about a new wave of Felix merchandising, everything from mugs to a video game for the Nintendo Entertainment System.

Since the publication of John Canemaker's *Felix: The Twisted Tale of the World's Most Famous Cat* in 1991, there has been a renewed interest in the early Sullivan-Messmer shorts. In recent years, the films have seen lots of VHS and DVD exposure, most notably on the *Presenting Felix the Cat* compilations from Bosko Video, *Felix!* from Lumivision, *Felix the Cat: The Collector's Edition* from Delta Entertainment, *Before Mickey* from Inkwell Images Ink, and the recent *Felix the Cat and 1920's Rarities* from Thunderbean Animation. Messmer Felix comic compilations have also begun to emerge including *Nine Lives to Live: A Classic Felix Celebration* by David Gerstein and more recently *The Comic Adventures of Felix the Cat* from Determined Productions.

## References

- Canemaker, John (1991): *Felix: The Twisted Tale of the World's Most Famous Cat*. Pantheon, New York.
- Crafton, Donald (1993): *Before Mickey: The Animated Film, 1898-1928*. University of Chicago Press.
- Gerstein, David (1996): *Nine Lives to Live*. Fantagraphics Books.
- Barrier, Michael (1999): *Hollywood Cartoons*. Oxford University Press.
- Beck, Jerry (1998): *The 50 Greatest Cartoons*. JG Press.
- Culhane, Shamus (1986): *Talking Animals and Other People*. St. Martin's Press.
- Gifford, Denis (1990): *American Animated Films: The Silent Era, 1897-1929*. McFarland and Company.
- Maltin, Leonard (1987): *Of Mice and Magic: A History of American Animated Cartoons*. Penguin Books.
- Solomon, Charles (1994): *The History of Animation: Enchanted Drawings*. Outlet Books Company.

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## Tom and Jerry

**Tom and Jerry** were an animated cat (**Tom**) and mouse (**Jerry**) team who formed the basis of a massively successful series of theatrical short cartoons created, written, and directed by animators William Hanna and Joseph Barbera (later of Hanna-Barbera fame), and produced by Metro-Goldwyn Mayer from 1940 to 1958. MGM later had more Tom & Jerry cartoons produced by outside studios in the 1960s (Gene Deitch's Rembrandt Films

from 1961 to 1962, and Chuck Jones' Sib Tower 12 Productions from 1963 to 1967). Tom and Jerry later resurfaced in TV cartoons produced by Hanna-Barbera Productions (1975-1977; 1990-1993) and Filmation Studios (1980 - 1982). The original Hanna and Barbera shorts are notable for having won seven Academy Awards, tying it with Walt Disney's Silly Symphonies as the most-awarded theatrical cartoon series.

## Plot and format

The plots of each short usually center on Tom's frustrated attempts to catch Jerry, and the mayhem and destruction that ensues. Because they seem to get along in some cartoon shorts (at least in the first minute or so), it is unclear why Tom chases Jerry so much, but some reasons given may include:

- normal feline hunger
- duty (often it is Tom's job, as a house cat, to catch mice and failure would equal eviction)
- the simple enjoyment of tormenting him
- revenge
- a misunderstanding (especially in shorts that start with them ambivalent or friendly to each other)
- a conflict when both of them want the same thing (usually food)
- a need to have Jerry out of the way

However, Tom usually never succeeds in defeating Jerry, mainly because of Jerry's own craftiness and cunning, but sometimes because of Tom's own stupidity. The shorts are famous for using some of the most destructive and violent gags ever devised for theatrical animation: Jerry slicing Tom in half, Tom using everything from axes, pistols, rifles, dynamite, and poison to try and murder Jerry, Jerry stuffing Tom's tail in a waffle iron, and so on. *The Simpsons's* "cartoon-within-a-cartoon", *Itchy and Scratchy*, mercilessly parodies the violence of *Tom and Jerry* by featuring even more extreme violence.

Neither Tom nor Jerry usually speak in the cartoons. There are brief exceptions, but their vocals are generally restricted to screams of pain (almost entirely from Tom), or nervous gulps. Facial expressions and gestures easily convey the characters' feelings and intentions. Tom occasionally displays a surprising singing ability, usually to attract a lady friend. This is excusable as it generally copies a famous crooner, and is perhaps a reference of cats yowling during the night.

Music plays a very important part in the shorts, emphasising the action and lending appropriate emotion to the scenes. Musical director Scott Bradley created complex scores that combined elements of jazz, classical, and pop music; Bradley often reprised actual contemporary pop songs, as well as songs from MGM films such as *The Wizard of Oz* and *Meet Me In St. Louis*.

Before 1953, all Tom and Jerry cartoons were produced in the standard Academy ratio and format; from 1953 to 1956 some of the output was dually produced in both Academy format and the widescreen CinemaScope process. From 1956 until the close of the MGM animation studio a year later, all Tom and Jerry cartoons were produced in CinemaScope; some even had their soundtracks recorded in stereo. The 1960s Gene Deitch and Chuck Jones

shorts were all produced in Academy format, but with compositions that made them compatible to be matted to Academy widescreen format as well. All of the Hanna and Barbera cartoons were produced in three-strip Technicolor; the 1960s entries were done in Metrocolor.

## Characters

### Thomas "Tom" Cat (a.k.a. Jasper) and Gerald "Jerry" Mouse (a.k.a. Jinx)

Tom is a bluish-grey [housecat](#) (or greyish-blue, depending on the short. His fur color is close to that of the [Russian Blue](#) breed of cats) who lives a pampered life, while Jerry is a small brown mouse who always lives in close proximity to him. Tom is very quick-tempered and thin-skinned, while Jerry is independent and opportunistic. Though very energetic and determined, Tom is no match for Jerry's brains and wits. By the iris-out of each cartoon, Jerry is usually left in a triumphant situation and Tom in a bad one. However, many other results have been reached: on rare occasions, Tom triumphs. Sometimes, usually ironically, they both lose. Once in a while, particularly at Christmas, Tom may actually save Jerry's life, or at least share gifts with him.

Both characters display sadistic tendencies, in that they are equally likely to take pleasure in tormenting each other. However, unlike Jerry, Tom has an enormously powerful conscience, and often panics if he thinks that Jerry is seriously injured, dying or dead. Jerry sometimes uses this to his advantage.

Although many supporting and minor characters speak, Tom and Jerry rarely do so. Tom, most famously, sings while wooing female cats; for example, he lip-syncs Louis Jordan's "Is You Is Or Is You Ain't My Baby" in the 1946 short Solid Serenade. His most noted spoken line occurs in three different shorts where Tom clearly says in an eerie, echoing voice "don't you believe it". Co-director William Hanna provides most of the squeaks, gasps, and other vocal effects for the pair, including the most famous sound effect from the series, Tom's leather-lunged scream (created by recording Hanna's scream and chopping the head and tail off of the recording, leaving only the strongest part of the scream on the soundtrack).

### Other characters

In his attempts to catch Jerry, Tom often has to deal with the intrusions of characters such as **Butch**, a scruffy black alley cat who also wants to catch and eat Jerry; **Spike** (sometimes billed as **Killer** or **Butch**), a vicious guard bulldog who tries to beat up the cat; and **Mammy-Two-Shoes**, Tom's African American owner (voiced by Lillian Randolph), who usually wallops the cat with a broom when he misbehaves.

In the late 1940s, Jerry adopted a little gray mouse foundling named **Nibbles** (also known as **Tuffy**). During the 1950s, Spike is shown to have a son of his own named **Tyke**, an addition that lead to both a slight softening of Spike's character and a short-lived spin-off theatrical series (*Spike and Tyke*). Tyke's appearance also gave Jerry one more weapon against Tom, as disturbing Tyke was sure to bring Spike's wrath down on the apparent culprit, usually Tom.

Occasionally Spike spoke, so to speak, using a voice and expressions modelled after Jimmy Durante, as in "*Dat's my boy!*". Another character in the series was **Quackers** the duckling, who was later adapted into Hanna-Barbera's character Yakky Doodle.

## History and evolution

### The Hanna-Barbera years

William Hanna and Joseph Barbera were both part of the Rudolf Ising unit at MGM's animation studio in late 1930s. Barbera, a storyman and character designer, was paired with Hanna, an experienced director, to start directing films for the Ising unit; the first of which was a cat-and-mouse cartoon called *Puss Gets the Boot* (completed in late 1939, and released to theatres on February 10, 1940). *Puss Gets The Boot* centers around Jasper, a gray tabby cat trying to catch Jinx, a cute little mouse, but without breaking anything; Jasper's owner Mammy has threatened to throw Jasper out ("O-U-W-T, out!") if he breaks one more thing in the house. Naturally, Jinx uses this to his advantage, and begins tossing wine glasses, ceramic plates, tea pots, and any and everything fragile, so that Jasper will get thrown outside. *Puss Gets The Boot* was previewed and released without fanfare, and Hanna and Barbera went on to direct other (non-cat-and-mouse related) shorts; after all, said many of the MGM staffers, haven't there been enough cat-and-mouse cartoons already?

The pessimistic attitude towards Jasper and Jinx changed when the cartoon became a favorite with theatre owners and with the Academy of Motion Picture Arts and Sciences, which nominated the film for the Academy Award for Best Short Subject: Cartoons of 1941. Another competitor for the award was Tex Avery's Merrie Melodies cartoon *A Wild Hare*, which featured the first appearance of the mature form of Bugs Bunny. Both nominees lost to another MGM cartoon, Rudolph Ising's *The Milky Way*.

However producer Fred Quimby, who ran the MGM animation studio, quickly pulled Hanna and Barbera off of the other one-shot cartoons they were working on, and commissioned a series featuring the cat and mouse. Hanna and Barbera held an intra-studio contest to give the pair a new name; animator John Carr won with his suggestion of "Tom and Jerry." The Tom and Jerry series went into production with *The Midnight Snack* in 1941, and Hanna and Barbera never helmed anything but the cat-and-mouse cartoons for the rest of their tenure at MGM.

Tom's physical appearance evolved significantly over the years. During the early 1940s, Tom had an excess of detail--shaggy fur, numerous facial wrinkles, and multiple eyebrow markings--all of which were streamlined into a more workable form by the end of the 1940s; Jerry stayed essentially the same for the duration of the series. By the mid-1940s, the series had developed a quicker, more energetic (and violent) tone, thanks to inspiration from the work of MGM Animation colleague Tex Avery, who joined the studio in 1942.

Even though the basic theme of each short is virtually the same, Hanna and Barbera found endless variations on that theme. Barbera's storyboards and rough layouts and designs, combined with Hanna's timing, resulted in the most popular, successful, and highly acclaimed series the MGM animation department ever had. 13 entries in the *Tom and Jerry* series (excluding *Puss Gets The Boot*) were nominated for the Academy Award for Best Short

Subject: Cartoons; seven of them went on to win the Academy Award, breaking the Disney studio's winning streak in that category. *Tom and Jerry* won more Academy Awards than any other character-based theatrical animated series.

*Tom and Jerry* remained popular throughout their original theatrical run, even when the budgets began to tighten a little in the 1950s and the pace of the shorts slowed slightly. However, after television became popular in the 1950s, box office revenues decreased for theatrical films, and short subjects. At first, MGM combated this by going to all-CinemaScope production on the series; but after the MGM accountants realized that their re-releases of the older shorts brought in just as much revenue as the new films, the studio executives decided, much to the surprise of the staff, to close the animation studio. The MGM animation department was shut down in 1957, and the final of the 114 Hanna and Barbera Tom and Jerry shorts, *Tot Watchers*, was released on August 1, 1958. Hanna and Barbera started their own television animation studio, Hanna-Barbera Productions, in 1957, which went on to produce such popular shows as *The Flintstones*, *The Jetsons*, and *Scooby-Doo*.

## The Gene Deitch era

In 1960, MGM decided that they wanted to produce new Tom and Jerry shorts again, and had producer William Snyder make an arrangement with Czech animation director Gene Deitch and Deitch's studio, Rembrandt Films, to make the films overseas in Prague, Czechoslovakia. The Deitch/Snyder team turned out 13 shorts: *Switchin' Kitten*, *Down and Outing*, and *It's Greek to Me-ow!* in 1961 and *The Tom and Jerry Cartoon Kit*, *Tall in the Trap*, *Sorry Safari*, *Mouse Into Space*, *Landing Stripling*, *High Steaks*, *Dicky Moe*, *Buddies Thicker Than Water*, *Carmen Get It!* and *Calypso Cat* in 1962. The Deitch shorts are considered by some as being the worst of the *Tom and Jerry* theatrical shorts, although others have an affinity for their surreal qualities.

Since the Deitch/Snyder team only saw a handful of the original *Tom and Jerry* shorts, the films that resulted from the arrangement were considered unusual and, in many ways, bizarre. The characters' gestures were often performed at high speed, often resulting in heavy motion blur. The soundtracks featured sparse music, spacey sound effects, dialogue that was mumbled rather than spoken, and featured heavy uses of reverb.

Also notable is the fact that these shorts are the only *Tom and Jerry* cartoons not to carry the phrase "Made In Hollywood, U.S.A." at the end. Due to Deitch's studio being behind the Iron Curtain, the production studio's location is omitted entirely.

Deitch's own story of his work on *Tom and Jerry* can be found at [his personal website](#).

## The Chuck Jones era

After the last of the Deitch cartoons were released, MGM turned to American director Chuck Jones, who had just ended his thirty-plus year tenure at the Warner Bros. Animation Department and started his own animation studio, Sib Tower 12 Productions, with partner Les Goldman. Jones and Goldman went on to produce 34 more Tom and Jerry shorts starting in 1963, all of which carried Jones' distinctive style (and a slight psychedelic influence), but with varying degrees of critical success. Jones co-directed the majority of the shorts with Maurice Noble; the remaining shorts were directed by Abe Levitow and Ben Washam, with

Tom Ray directing two clip shows built around footage from the Hanna/Barbera era. MGM ceased production of animated shorts in 1967, by which time Sib Tower 12 had become part of MGM, and Jones had already begun to move on to television specials and the feature film *The Phantom Tollbooth*.

## **Tom and Jerry hit television**

Beginning in 1965, the Hanna and Barbera Tom and Jerry films began to appear on television in heavily edited form: the Jones team was required to take the shorts that featured Mammy, rotoscope her out, and replace her with a thin white woman. Lillian Randolph's original voice tracks were replaced with June Foray performing in an Irish accent. Much of the extreme violence in the cartoons was also edited out. Starting out on CBS' Saturday Morning schedule on September 25, 1965, Tom and Jerry moved to CBS Sundays two years later and remained there until September 17, 1972.

When shown on television in the United Kingdom (from the late 1960s, usually on the BBC) *Tom and Jerry* cartoons were not cut for violence and Mammy was retained. As well as having regular slots, *Tom and Jerry* served the BBC in another way. When faced with disruption to the schedules (such as those occurring when live broadcasts overrun), the BBC would invariably turn to *Tom and Jerry* to fill any gaps, confident that it would retain much of an audience that might otherwise channel hop.

## **Tom & Jerry's new owners**

In 1986, MGM was purchased by Ted Turner. Turner sold the company in 1988, but retained MGM's pre-1986 film library, thus Tom and Jerry became the property of Turner Entertainment (where the rights stand today via Warner Bros.), and have in subsequent years appeared on Turner-run stations, such as TBS, TNT, Cartoon Network, Boomerang, and Turner Classic Movies.

## **Censorship**

Like a number of other animated cartoons in the 1930s, 1940s and 1950s, Tom and Jerry was not considered politically correct in later years. Some cartoons featured either Tom or Jerry in blackface following an explosion, which were subsequently cut when shown on television, as well as other ethnic stereotypes that were made fun of, particularly the black maid, Mammy Two Shoes, whose distinctive voice was dubbed in most of the cartoons that she appeared in. In one case, the character was reanimated as a slim, young, white lady.

## **Post-Golden Age Cartoons**

In 1975, Tom and Jerry were reunited with Hanna and Barbera, who produced new Tom and Jerry cartoons for Saturday morning. These 48 7-minute short cartoons were paired with Grape Ape and Mumbly cartoons, to create *The New Tom & Jerry/Grape Ape Show*, *The Tom & Jerry/Grape Ape/Mumbly Show*, and *The Tom & Jerry/Mumbly Show*, all of which ran on ABC Saturday Morning from September 6, 1975 to September 3, 1977. In these

cartoons, Tom and Jerry (with red bow tie), who had been enemies during their formative years, became nonviolent pals who went on adventures together, as H-B had to meet the stringent rules against violence for children's TV.

In 1980, Filmation Studios (in association with MGM Television) also tried their hands at producing a Tom and Jerry TV cartoon series, this one called The Tom and Jerry Comedy Show and also featuring new cartoons starring MGM cartoon star Droopy, and supporting characters such as Spike and Barney Bear, not seen since the original MGM productions. Although they returned Tom and Jerry to the original chase formula, the Filmation cartoons were of noticeably lesser quality than Hanna-Barbera's efforts; this incarnation lasted on CBS Saturday Morning from September 6, 1980 to September 4, 1982.

One of the biggest trends for Saturday morning television in the 1980s and 1990s was the "babyfication" of older, classic cartoon stars, and on September 8, 1990, Tom and Jerry Kids, produced by Hanna-Barbera Productions in association with Turner Entertainment, debuted on FOX, featuring a youthful version of the famous cat-and-mouse duo chasing each other. Spike and his son Tyke, and Droopy and his son Dripple, appeared in back-up segments for the show, which ran until October 2, 1993. This also marks the first appearance of the gameshow host Cabalooze Cal (voiced by Phil Hartman) and the laziest cat Clyde (voiced by Brian Cummings) and his assistant Kyle (voiced by Pat Fraley).

In 2000, a new Tom & Jerry cartoon entitled **The Mansion Cat** premiered on Cartoon Network. It featured Joseph Barbera as the voice of Tom's owner, whose face is never seen. In that cartoon, Jerry, housed in a habitrail, is as much of a house pet as Tom is, and their owner has to remind Tom to not "blame everything on the mouse".

A new Tom & Jerry short, entitled **The Karateguard**, which had been directed and written by Joseph Barbera and produced by Spike Brandt and Tony Cervone premiered on Friday, January 27, 2006 at 9:00PM on Cartoon Network. A series of more new cartoons called Tom and Jerry Tales were produced at Warner Bros. in the first half of 2005. Thirteen half-hour episodes (each consisting of three shorts) were produced with only the 'foreign market' signed up. There was hope that they would air on the Cartoon Network, but no deal has yet been confirmed.

## Feature films

In 1945, Jerry made an appearance in the live-action MGM musical feature film Anchors Aweigh, in which, through the use of special effects, he performs a dance routine with Gene Kelly. In this sequence, Gene Kelly is telling a class of school kids a fictional tale of how he earned his medal of honor. Jerry is the king of a magical world populated with cartoon animals, whom he has forbidden to dance as he himself does not know how. Gene Kelly's character then comes along and guides Jerry through an elaborate dance routine, resulting in Jerry awarding him with a medal. Jerry speaks and sings in this film; his voice is performed by Sara Berner. Tom has a cameo in the sequence as one of Jerry's servants.

Both Tom and Jerry appear with Esther Williams in a dream sequence in another MGM musical, Dangerous When Wet (1953). In the film, Tom and Jerry are chasing each other underwater, when they run into Esther Williams, with whom they do an extended

synchronized swimming routine. Tom and Jerry have to save Esther from a lecherous octopus, who tries to lure and woo Esther into his (many) arms.

1992 saw the overseas release of *Tom and Jerry: The Movie*, produced by Film Roman, was released to United States theatres in 1993. A musical in the typical Disney-esque vein, *Tom and Jerry: The Movie* was criticized by reviewers and audiences alike for being unoriginal, predictable, and for giving Tom and Jerry dialogue (and songs) through the entire film. The movie did poor business in America. In 2001, Warner Bros. which had by then merged with Turner and assumed its properties, released the direct-to-video movie *The Magic Ring*, in which Tom covets a ring which grants mystical powers to the wearer, and has become accidentally stuck on Jerry's head.

## Other formats

Tom and Jerry began appearing in comic books in 1942, as one of the features in *Our Gang Comics*. In 1949, with MGM's live-action *Our Gang* shorts long out of production, the series was renamed *Tom and Jerry Comics*. The pair continued to appear in various books for the rest of the 20th century.

The pair have also appeared in a number of video games as well, including:

Tom	and	Jerry	for	Nintendo	Entertainment	System
Tom	and	Jerry:	The	Movie	Sega	Gear
Tom	and	Jerry	for	Super	Nintendo	&
Tom	and	Jerry:	Mouse	Attacks	Game	Sega
Tom	and	Jerry:	Infurnal	Escape	Boy	Color
Tom	and	Jerry:	The	Magic	Game	Boy
Tom and Jerry: War of the Whiskers			for	Ring	Boy	Advance
Tom and Jerry: House Trap			for	the	PlayStation	
Tom and Jerry: Fists of Fury			for	Nintendo	64	and PC

## Tom and Jerry in foreign countries

Due to its lack of dialog, Tom and Jerry has been translated into numerous foreign languages.

Tom and Jerry began broadcast in Japan in 1964. A 2005 nationwide survey taken in Japan by TV Asashi, sampling age groups from teenagers to adults in their sixties, in 2005 ranked Tom and Jerry #85 in a list of the top 100 anime of all time, while their web poll taken after the airing of the list ranked it at #58. [\[1\]](#) Tom and Jerry is also well-known in China.

Tom and Jerry have long been popular in Germany. However, the cartoons are overdubbed with rhyming German-language verse that describes what is happening onscreen.

## The Oscar-winning shorts

The following cartoons won the Academy Award for Best Short Subject: Cartoons:

1943:	The	Yankee	Doodle	Mouse
1944:		Mouse		Trouble
1945:		Quiet,		Please!
1946:	The		Cat	Concerto
1948:	The		Little	Orphan
1952:	The		Two	Mouseketeers
1953: Johann Mouse see (Johann Strauss II)				

These cartoons were nominated for the Academy Award for Best Short Subject: Cartoons, but did not win:

1940:	Puss	Gets	the	Boot	(Jasper	and	Jinx)
1941:	The		Night		Before		Christmas
1947:	Dr.	Jekyll		and		Mr.	Mouse
1949:	Hatch		Up		Your		Troubles
1951:			Jerry's				Cousin
1954: Touché, Pussy Cat!							

## References

- Barrier, Michael (1999). *Hollywood Cartoons: American Animation in Its Golden Age*. Oxford: Oxford University Press. ISBN 0-19-503759-6.
- Maltin, Leonard (1980, updated 1987). *Of Mice and Magic: A History of American Animated Cartoons*. New York: Penguin Books. ISBN 0-452-25993-2.

## Trivia

- The folk duo Simon & Garfunkel started performing as *Tom & Jerry*. Simon was Jerry and Garfunkel was Tom.

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## 9 History of Cats

The history of [cats](#) has been since the beginning of writing.

## Ancient Egypt

The exact history of human interaction with cats is still somewhat vague. The earliest written records of attempts to domesticate cats date back to ancient Egypt, circa 4000 BC, where cats were employed to keep mice and rats away from grain stores. However, a gravesite discovered in 1983 in Shillourokambos, Cyprus, dating to 7500 BC, contains the skeletons of a ceremonially buried human and a type of young cat. Since cats are not native to Cyprus, this suggests that cats were domesticated (or just tamed) at least this early. The cat found in the Cyprus grave was more similar to the ancestral wildcat species than to

modern housecats. [1][2]. Statues from Anatolia created around 6000 BC have also been found depicting women playing with domesticated cats, which implies that cats were domesticated there around the same time period.

Ancient Egyptians regarded cats as embodiments of the goddess Bast, also known as Bastet (emphasizing the female -t suffix) or Thet. The penalty for killing a cat was death, and when a cat died it was sometimes mummified in the same way as a human. Recently, deep scans of several mummified felines indicated they had suffered broken necks before mummification. It is unclear why, but researchers theorize that some cats may have been sacrificed to honor Bast. Recent research indicates that cats were so popular in tombs that sometimes other animals would be wrapped up in the form of a mummified cat.

## Vikings

Vikings used cats as rat catchers and companions and are sometimes credited with the domestication of the [Norwegian Forest Cat](#), or Skogkatt. The Viking goddess of love, fertility and war, Freya, was strongly associated with cats, as they were considered her sacred animals. She was often portrayed in a chariot drawn by two horse-sized winged cats. Kittens were often given in her name to brides, linking together Freya's influence over both cats and romance.

## Middle Ages

In the Middle Ages, cats were often thought to be witches' familiars (e.g. greymalkin of the first witch in Macbeth's famous opening scene), and during festivities were sometimes burnt alive or thrown off tall buildings.

The human killing of cats in the middle ages has also been cited as one of the reasons for the spread of the plague, which was spread by the increased rodent population caused by the death of so many cats.

## Asia

In Asia, the cat is one of the animals in the 12-year cycle of the Vietnamese zodiac. However, it does not appear in the Chinese zodiac. Legend holds that the rat, who invited the animals to the Jade Emperor's Palace to be chosen for the zodiac, forgot to invite the cat, so the cat declared the rat its natural enemy. Another version of this story involves betrayal. As the mice and the cat were crossing a river on the back of an ox to the Palace, the mice pushed the cat into the river so the cat would not beat the mice to the palace.

In most Western cultures, cats are rarely eaten outside of extremely desperate times. However, cat meat is sometimes used to prepare regional dishes in some areas of China and Korea. Some outrage has been generated when cats have been confused with the Civet cat (also sometimes called a "bearcat"), an Asian animal related to the mongoose that slightly resembles the domestic cat and is occasionally used as a source of human food.

## Islam

The cat is highly respected in Islam because of tales that the prophet Muhammad approved its domestication by one of his companions. This companion was nicknamed "Abu Hurairah" or "Father of the little cat". In Islam, it is considered a commendable act to feed a cat milk. There are numerous stories about cats in Islam. One story tells of a cat that saved Muhammad from being bitten by a deadly snake. In another tale, when Muhammad was called to prayer he found his cat Muezza asleep on the sleeve of his robe; the prophet cut off the sleeve rather than disturb his cat. In a famous Hadeeth, a woman was doomed to Hell after she kept a cat till it starved to death.

## Europe

Folklore dating back to as early as 1607 holds that a cat will suffocate a newborn infant by applying its nose to the child's mouth, sucking the breath out of the infant. A jury in England once found that a child met his death from a cat sucking the breath out of him; this conclusion was probably reached because of the widespread acceptance of the tale. Many explanations are given to attempt to support it, the most common of which is jealousy from the cat towards the infant, as a result of the level of attention that the infant receives. Another explanation advanced is that the smell of milk from the infant's mouth attracts the cat to do so. However, it has been shown that, unless the cat had been raised on milk, they prefer to drink water.

## Modern times

It is a common belief that cats have a "sixth sense" and can sense ghosts, spirits, or evil.

Today some people still believe that [black cats](#) are unlucky or that it is unlucky if a black cat crosses one's path, while others believe that black cats are lucky. Black cats in particular are associated with Halloween festivities. Because of this, many cat rescue groups will not adopt out black cats during the month of October because they are concerned that the prospective owners are only going along with the season and, as a result, will not make a lifelong dedication to the pet. They are also afraid that the prospective owners will do away with the cat because of its alleged unluckiness. Some [animal shelters](#) will not adopt out cats of any kind (or sometimes pets in general) around Halloween because they are afraid, as a result of the moral panic claims of believers in Satanic ritual abuse, that the animals will be sacrificed. A far more plausible fear is that they may be used in Halloween-oriented pranks which could hurt or kill them.

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## List of Historical Cats

This is a [list of historical cats](#).

## Cats famous in their own right

All Ball, the first cat of Koko the gorilla. Andy, cat owned by Florida Senator Ken Meyer that has the cat record for non-fatal fall. Andy fell 200 feet and survived. Blackie, a cat that inherited 15 million British Pounds and thus became the richest cat in history.

CopyCat (CC), the first cloned cat. Emily American cat who, after being lost, was found to have gone to France[1] Faith, London cat that took up residence in St Faith & St Augustine's church (by St Paul's cathedral) in wartime, and received a PDSA Silver Medal for her bravery in caring for her kitten when the church was bombed.

F. D. C. Willard (*Felis Domesticus* Chester Willard). Named for his sire (Willard of Aspen, Colorado), Chester acquired a resume of two research papers in low temperature physics after entering this unlikely field in collaboration with his keeper, J. H. Hetherington of the Michigan State University. Belatedly learning of a style rule for Phys. Rev. Lett. prohibiting the use of the authorial pronoun we in single-author papers, Hetherington solved the problem this presented to him by appending the name of his cat on the title page of a draft paper rather than by rewriting the body of the text. The dearth of word processing facilities in the mid-1970s made this a cost effective response. Hamlet, Considered by Guinness to be "the world's most travelled cat." He flew approximately 600,000 kilometers because he managed to get stuck in a Canadian airplane for seven weeks.

Henrietta, the now-deceased cat of New York Times foreign correspondent Christopher S. Wren, made famous by the book *The Cat Who Covered the World* (ISBN 0-684-87100-9 in one printing).

Hodge, one of Samuel Johnson's cats, famously recorded in James Boswell's *Life of Johnson*, as shedding light on his owner's character.

Humphrey, a cat who took up residence at 10 Downing Street in during John Major's tenure as Prime Minister, and was banished when Tony Blair came to power - named for the character of "Sir Humphrey Appleby" in *Yes, Minister*.

Little Nicky, first cloned animal for commercial reasons. Morris the Cat, one of Burt Reynolds most beloved movie Co-stars, this finicky Commercial Mascot charmed his way into America's hearts with his calm demeanor and orange-striped style

Simon, celebrated ship's cat of HMS 'Amethyst', the only cat to have won the PDSA's Dickin Medal, for his rat-catching and morale-boosting activities during the Yangtse Incident in 1949.

Sir Isaac Newton's cat, whose incessant desire to be let in or out allegedly drove him to devise the cat flap.

A cat who wandered on stage during the premiere of Rossini's *The Barber of Seville*, sending the audience into gales of laughter.

Pangur Ban, the cat who inspired an otherwise unknown 8th (or 9th) century Irish monk to write a poem cataloguing their similarities.

Red, a cat who recently became a millionaire. Tibbles, singlehandedly wiped out the Stephens Island Wren.

Trim, is said to have been the first cat to circumnavigate the world. Belonged to Matthew Flinders.

## Pets of famous people

### Famous pets of Presidents and their families

Blackie or Blacky, belonging to Calvin Coolidge. Cleo, Tortoiseshell stray belonging to Ronald Reagan. India "Willie" Bush, US President George W. Bush's cat, named for Rubén Sierra "El Indio". Misty Malarky Ying Yang, Siamese belonging to Amy Carter and former pet of former U.S. President Jimmy Carter. Sara, Tortoiseshell stray belonging to Ronald Reagan. Siam, Siamese belonging to Rutherford B. Hayes. A gift from the American Consul in Bangkok; Siam was the first Siamese cat to reach the United States (1878). Slippers, gray polydactyl tabby belonging to Theodore Roosevelt. Socks, stray cat adopted by the family of President Bill Clinton, named by his daughter Chelsea. Tabby, belonging to Thomas "Tad" Lincoln, Abraham Lincoln's son. Tabby was the first White House cat. Tom Kitten, belonging to Caroline Kennedy; when he died in 1962, the press gave him an obituary notice. Tom Quartz, belonging to Theodore Roosevelt; named after the cat in Roughing It by Mark Twain. Tiger, gray striped stray belonging to Calvin Coolidge, who used to walk around the White House with the cat draped around his neck; when he got lost, Coolidge went on the radio to appeal for help finding him. Timmy, belonging to Calvin Coolidge; would allow Coolidge's canary to sleep between his paws.

### Famous pets of other famous people

Abby, belonging to Polly Bergen. Agrippina, Banquo, Banshee, Carl, and Nero belonging to Agnes Repplier. Ahmedabad, belonging to John Kenneth Galbraith. Its nickname "Ahmed" offended Islamic officials while Galbraith was U.S. ambassador to India, so he changed its name to Gujarat. Ajax, Banjo, Goody Two Eyes, and Madame Ref belonging to Ella Wheeler Wilcox. Alice, belonging to Martin Mull. Allen, belonging to Jean Michel Jarre. Amberson/Ambrosia, belonging to George Booth. Booth originally called it "Ambrosia," until he found it was a boy then called it "Amberson." Andy, belonging to Sen. Kenneth Myer (FL). Record-holder for longest non-lethal fall: 16 stories. Apollinaris', Beelzebub, Blatherskite, Buffalo Bill, Sin, Sour Mash, Tammany, Zoroaster, etc

belonging	to	Mark	Twain.
Ariel, orange Persian belonging to Carl Van Vechten. Discussed in The Tiger in the House.			
Ashley, belonging to Vanna White.			
Asole, Carream(white cat), and El c. belonging to Joan van Ark.			
Atossa, three-legged cat belonging to Matthew Arnold. Featured in his poem Matthias about the poet's canary. Other cats of his include Blacky			

Beethoven	Mozart, Verdi, and Vivaldi	belonging to Martha Stewart.	
Beppo,	belonging to Jorge Luis Borges.		
Beppo,	belonging to Lord Byron. One of five cats who traveled with him.		
Big Red,	belonging to Ann-Margret.		
Billy,	belonging to Dedee Pfeiffer		
Bimbo, white long-haired cat	belonging to Paul Klee, depicted in Marina Algerghini's Il Gatto		
Cosmico	di Paul Klee,	1993.	
Bing Clawsby,	belonging to Michael Feinstein.		
Bismarck, large Persian	belonging to Florence Nightingale.		
Bob,	belonging to Betty White.		
Boche,	belonging to Anne Frank. An aggressive warehouse cat who was occupying the attic when the Franks arrived; derogatory slang for "German."		
Bona Marietta,	belonging to Robert Southey.		
Boy, Sealpoint Siamese	belonging to Vivien Leigh.		
Bunny Kitty, calico	belonging to Enrico Colantoni.		

Cake,	belonging to Warren Beatty.		
Calvin, Maltese stray	belonging to Harriet Beecher Stowe; sat on her shoulders while she wrote.		
Caruso,	belonging to Roberta Flack.		
Cat, first of three owned by Winston Churchill. Others were; Nelson a black cat that sat in a chair next to Churchill in both the Cabinet & dining rooms(named after Lord Nelson but wasn't nearly as brave and afterwards Jock. Jock was a ginger kitten, Churchill called this cat his special assistant and mentioned Jock in his will. Blackie, Bob(black & white cat), Margate(black stray) and Mr. Cat also were his or his family's.			
Catarina, belonging to Edgar Allen Poe. Poe took her everywhere, and she frequently sat on his shoulder as he wrote; she inspired The Black Cat.			
Chanoine Anogora	belonging to Victor Hugo; originally called Gavroche, renamed because it was so indolent.		
Charles,	belonging to Michael Joseph.		
Charmain,	belonging to Cleopatra.		
Charo,	belonging to Yoko Ono.		
Childebrand, black & tan striped cat	belonging to Théophile Gautier; mentioned in La Ménagerie		Intime.
Chilla and Chin;	Two Ukrianian gray cats belonging to Paul Gallico.		
Chloe, Tabby	belonging to Sally Gunnell.		
Chopin,	belonging to F. Scott Fitzgerald.		
Cleopatra,	belonging to Beryl Reid.		

Cléopatre, belonging to Théophile Gautier; liked to stand on 3 legs; mentioned in La Ménagerie Intime.  
 Cobby, Blue Persian belonging to Thomas Hardy; given to Hardy late in life, he vanished when Hardy died in 1928.  
 Cody, belonging to Henri Sauguet; became ecstatic when it heard Debussy being played on the piano.  
 Columbine, belonging to Thomas Carlyle.  
 Cookie, a stray belonging to Sir Angus Wilson; the last of many pet cats in the author's life.  
 Crushinto, or Crushy, Orange rescuee belonging to Evan Dorkin & Sarah Dyer.

Dancer, belonging to Walter Cronkite.  
 Del Boy, belonging to Frank Bruno.  
 Delilah, one of a number of cats belonging to the late Queen frontman Freddie Mercury; Mercury paid tribute to him on the Queen album, "Innuendo".  
 Demi, clack cat belonging to Sally Gunnell.  
 Dinah, the actual cat of Alice Liddell.  
 Dimly, belonging to Beryl Reid; one of many.  
 Disraeli, large Persian belonging to Florence Nightingale.  
 Dlinsky, tabby, probably female, belonging to Alexander Borodin; roughly translates as "longy" from Russian.  
 Dolly, belonging to Tallulah Bankhead.  
 Don Pierrot de Navarre, white cat belonging to Théophile Gautier; liked to steal his pen, fathered three black kittens, mentioned in La Ménagerie Intime.  
 Dweezil, belonging to Robert Wagner; gift from Dweezil Zappa (see Moon below).

Elvis, belonging to John Lennon.  
 Enjoras, black kitten belonging to Théophile Gautier; born to white parents Don Pierrot & Séraphita; named for character in Les Misérables; mentioned in La Ménagerie Intime.  
 Eponine, black fur, green eyed cat belonging to Théophile Gautier; daughter of Don Pierrot & Séraphita; named for character in Les Misérables; mentioned in La Ménagerie Intime.

F. Puss (a.k.a. "Mr. Feather Puss"), Yellow-eyed cat belonging to Ernest Hemingway; so trusted that the Hemingways allowed him to babysit their infant. He had 30 cats in all. Among the others are Boise, Crazy Christian, Dillinger, Ecstasy, Fats, Friendless Brother, Furhouse, etc.

Fatima, belonging to Horace Walpole.  
 Feathers, Persian kitten belonging to Carl Van Vechten; inspiration for The Tiger in the House.  
 Félimare, striped like a tiger, belonging to Cardinal Richelieu; one of many cats Richelieu had when he died.  
 Fellini, Maine coon belonging to Gene Shalit; rescued from a shelter in Pittsfield, MA.  
 Flower-Face, Siamese belonging to James Mason; talked about in Mason's The Cats in our Lives 1949.  
 Folly, belonging to James & Pamela Mason.  
 Foss, belonging to Edward Lear; subject of many drawings, some published in The Heraldic

Blazon of Foss the Cat; inspired The Owl & the Pussycat; Lear buried Foss in his garden and died himself only two months later.  
 Foxie, belonging to Brian Aldiss.  
 Fred, belonging to R. Crumb; inspiration for the infamous Fritz.  
 Fritzi, mackerel tabby belonging to Paul Klee; depicted in Marina Algerghini's *Il Gatto Cosmico* di Paul Klee, 1993.  
 Fuckchop, belonging to Trent Reznor.

Gavroche, black kitten belonging to Théophile Gautier; parents Don Pierrot & Séraphita; named for character in *Les Misérables*; mentioned in *La Ménagerie Intime*.  
 Gavroche, Angora belonging to Victor Hugo; later renamed Chanoine ("the canon") because it was so indolent.  
 Gazette, belonging to Cardinal Richelieu. Described as "indiscreet;" one of many cats Richelieu had when he died.  
 General Butchkin, belonging to Iris Murdoch.  
 George Pushdragon, belonging to T.S. Eliot.  
 Giorgio, belonging to Peggy Guggenheim.  
 Gladstone, large Persian belonging to Florence Nightingale.  
 Grimalkin, the American painter Benjamin West's cat.  
 Gris-Gris, belonging to Charles de Gaulle. Gris is French for "gray".  
 Guillaume-en-Egypte, belonging to Chris Marker; also blog correspondent for "Un Regard Moderne".  
 Gypsy, belonging to Peggy Guggenheim.

Hamilcar, belonging to Anatole France.  
 Harold, belonging to Horace Walpole.  
 Hester, belonging to Andy Warhol.  
 Hinse, tomcat belonging to Sir Walter Scott; tormented Scott's dogs until a bloodhound named Nimrod killed him in 1826.  
 Hodge, the cat belonging to Dr Samuel Johnson. Johnson would go to town himself to buy oysters for Hodge.  
 Hurlyburlybuss, belonging to Robert Southey.

Jackson, belonging to Brian Aldiss.  
 James Taylor, (see Tata).  
 Jeepers Creepers, belonging to Elizabeth Taylor.  
 Jellylorum was T. S. Eliot's own cat, immortalized in Old Possum's Book of Practical Cats, the basis for the musical Cats.  
 Jenny, belonging to Beryl Reid; one of many.  
 Jeoffry was Christopher Smart's cat, who is praised in his owner's poem *Jubilate Agno* (A Poem from Bedlam) (Jeoffry was Smart's only companion during the several years he languished in solitary confinement in Bedlam).

Karoun, belonging to Jean Cocteau. *Drôle de Ménage* was dedicated to him.  
 Kashka, belonging to Deirdre Hall.

Kiki-la-Doucette, belonging to Colette. Doucette is French for "gentle one." Khouli-Khan, the cat of Thomas Anson is memorialized by the neoclassical "Cat's Monument" in the park at Shugborough Hall, Staffordshire, unless the cat in question is the first cat to circumnavigate the globe in the company of Admiral George Anson on HMS Centurion

Staffordshire Past track website

La Chatte belonging to the writer Colette. The cat's name means The (female) cat in French and the name of her cat La Chatte Dernière means the last (female) cat in the same language. Other cats of hers include Kapok, Kro, La Touteu, Mini-mini, Minionne, Muscat, One and Only, Toune, Zwerg, and others.

Lady Arabella, belonging to John Spencer Churchill. When Princess arrived, Arabella was elevated to the rank of "Duchess of Catalunya and Countess of Barcelona."

Langbourne, belonging to Jeremy Bentham; over time, Langourne's name became The Reverend Sir John Langbourne, D.D. (Doctor of Divinity).

Le Docteur, belonging to Alexandre Dumas.

Leo, belonging to Ruskin Spear.

Lilly, white kitling belonging to Samuel Johnson

Lipstick, the second cat of Koko the gorilla.

Little Teddy, rescued stray belonging to Enrico Colantoni.

Lord Nelson, belonging to Robert Southey; over the years, Nelson went through the ranks of Lord, Baron, Viscount, & Earl for "services performed against the Rats."

Louisa, belonging to William Makepeace Thackeray.

Lucifer, jet black cat belonging to Cardinal Richelieu; one of many cats Richelieu had when he died.

Luck, attributed name of King Charles I's black cat.

Ludovic le Cruel, belonging to Cardinal Richelieu. Savage rat-killer; one of many cats Richelieu had when he died.

Ludoviska, belonging to Cardinal Richelieu. Polish cat; one of many pets Richelieu had when he died.

Lulu, belonging to Beryl Reid; one of many.

Macramé, belonging to Brian Aldiss.

Madame Théophile, red & white cat belonging to Théophile Gautier; liked to steal food from author Gautier's fork; mentioned in La Ménagerie Intime.

Madame Vanity, belonging to Michel de Montaigne.

Magritte, belonging to Gloria Steinem.

Manny, belonging to Ruskin Spear.

Marcel, belonging to Jeanne Becker.

Marcus, Siamese belonging to James Dean; gift from Elizabeth Taylor.

Marilyn Miste, belonging to Whitney Houston.

Marmoutte Blanche, Black & white angora belonging to Pierre Loti; featured in Lives of Two Cats.

Marmoutte Chinoise, belonging to Pierre Loti; stowaway kitten from China featured in Lives of Two Cats.

Master's Cat, The, belonging to Charles Dickens. The only of Williamina's kittens Dickens kept; she would snuff his reading candle to get attention.

Maurice, belonging to Jean-Claude Suarès. Named for artist Suarès' wife's lover, who was "not allowed on the bed either."

Meatball, belonging to Jane Pauley.

Micette or Micietto, grayish-red cat with black stripes (tabby) belonging to Pope Leo XII; born in the Vatican, lived among the Pope's robes.

Mimi, belonging to Rosa Luxemburg.

Mimi-Paillon, Angora belonging to Cardinal Richelieu; one of many cats Richelieu had when he died in 1642.

Mimsy, belonging to Evan Dorkin & Sarah Dyer; formerly feral rescuee.

Minna Minna Mowbray, belonging to Michael Joseph; an entire chapter is dedicated to her in Cat's Company 1946.

Minou, belonging to George Sand; Sand ate her breakfast from the same bowl as her cat.

Mirza Murad Alibeg, belonging to T.S. Eliot. More often called "The Musical Box" or "Cockalorum" because its given name was too long for the size of the apartment.

Misha, belonging to Yoko Ono.

Mitsou, white Perisan belonging to Marilyn Monroe.

Moon, belonging to Robert Wagner; gift from Moon Unit Zappa (see Dweezil above).

Moortje, belonging to Anne Frank; left with neighbors when her family fled to the attic.

Mouche, belonging to Victor Hugo; French for "fly" (as in the insect).

Mounard le Fogueux, belonging to Cardinal Richelieu Described as "quarrelsome, capricious, & worldly;" one of many cats Richelieu had when he died in 1642.

Mouschi, belonging to Anne Frank. The warehouse and office cat that came to live with the Franks in the attic; the pet of some family friends.

Mousetrap, belonging to Van Heflin.

Mr. Cat, belonging to Phyllis Diller.

Mr. Jinx or Jinxie, belonging to Evan Dorkin & Sarah Dyer.

Mr. Peter Wells, belonging to H.G. Wells.

Muezza, belonging to Mohammed. It is said that once when Mohammed was called to prayer, he cut off the sleeve of his robe rather than disturb his sleeping pet, who was nestled upon it.

Murphy, belonging to Bernadette Peters.

Myobu No Omoto, belonging to Emperor Ichijo of Japan; "Omoto, Lady-in-Waiting"; Ichijo once imprisoned the owner of a dog that chased his pet.

Mys, dark long-haired cat belonging to Paul Klee; depicted in Marina Algerghini's Il Gatto Cosmico di Paul Klee, 1993.

Mysouff, belonging to Alexandre Dumas. There was a Mysouff I & Mysouff II - Mysouff II was black & white and Dumas' favorite, even though it once ate all his exotic birds.

Nichols, belonging to Vivien Leigh.

Nemo, Seal point Siamese belonging to PM Harold Wilson (UK); used to accompany the Wilsons on holiday.

New, belonging to Vivien Leigh; named after "New Theater."

Nickie, belonging to Brian Aldiss.

Nigger Man, belonging to H. P. Lovecraft as a boy. Also a cat in his story "The Rats in the Walls."

Nightlife, belonging to Charles Mingus.  
 Noilly Prat, belonging to T.S. Eliot.  
 Norton, Scottish fold tabby belonging to Peter Gethers; fictionalized in novels *The Cat Who Went to Paris* & *A Cat Abroad*.  
 Nuggi, long-haired cat belonging to Paul Klee; depicted in Marina Algerghini's *Il Gatto Cosmico* di Paul Klee, 1993.  
 Numbers One thru Eight, Siamese cats belonging to Beverley Nichols; owned 7 cats all given numbers as names; "Six" was not used, Eight's original name was "Oscar."

Old	Foss	(see	Foss).
Oliver,	tabby	to	Thomas
Onyx,	belonging	to	Arthel
Oscar, belonging to Beverley Nichols.			Huxley.
			Neville.

Pascal,	belonging	to	Anatole	France.
Patapan,	belonging	to	Horace	Walpole.
Patrocle,	belonging to Jean	Auguste	Dominique	Ingres.
Patsy was Charles Lindbergh's cat and often went flying with him (but not on his famous flight of 1930)				
Pattipaws or Pettipaws,	belonging	to	T.S.	Eliot.
Perruque, belonging to Cardinal Richelieu. As a kitten, she fell at Richelieu's feet from the wig ("perruque") of an academic named Racan.				
Persian Snow,	belonging	to	Erasmus	Darwin.
Pippo,	belonging to Compton MacKenzie;	one of many pet cats.		
Pixel or Pixie,	belonging to Evan Dorkin & Sarah Dyer.			
Polar Bear, the white cat adopted by writer and animal activist Cleveland Amory, and featured in <i>The Cat Who Came for Christmas</i> , <i>The Cat and the Curmudgeon</i> and <i>The Best Cat Ever</i>				

Pony Boy,	Abyssinian	belonging	to	Richard	Patrick.
Poo Jones,	belonging	to	Vivien	Leigh.	
Popcorn,	belonging	to	Edward	Djerejian	
Poppet,	belonging	to	Joe	Namath.	
Poppy, tabby & white	belonging	to	Sally	Gunnell.	
Princess Sophie Louise of Sweden, long-haired tabby belonging to John Spencer Churchill.					
Procope,	belonging to Jean	Auguste	Dominique	Ingres.	
Prudence, blue Persian belonging to Prime Minister Georges Clemenceau of France.					
Pudlenka, belonging to Karel Capek. She had three cats named Pudlenka; Pudlenka 1 appeared on Capek's doorstep the day his tomcat died, had 26 kittens in her lifetime; Pudlenka 2 had 21.					
Pulcinella, belonging to Domenico Scarlatti; inspired <i>The Cat's Fugue</i> as she liked to walk up & down his keyboards.					
Punk, belonging to Doris Day;	one	of	10+	Day	rescued
Purdoe,	belonging	to	Samuel	Butler.	

Pyewacket, belonging to Kim Novak; starred with Novak in Bell Book and Candle. Pyrame, belonging to Cardinal Richelieu. He & Thisbe were named after the mythological lovers because they slept together with paws intertwined.

Racan, belonging to Cardinal Richelieu. Named for the academic out of whose wig he fell, as a kitten, at Richelieu's feet.  
 Reverend Wenceslas Muff, The, black tomcat belonging to Sir Roy Strong.  
 Rhett Butler, belonging to Vanna White.  
 Rita, black cat belonging to Julia Sweeney.  
 Romeo, belonging to Peggy Guggenheim.  
 Rubis sur l'Ongle, belonging to Cardinal Richelieu. Especially fond of milk; one of many cats Richelieu had when he died in 1642.  
 Rumpel, belonging to Robert Southey. Full title was The Most Noble the Archduke Rumpelstizchen, marquis Macbum, Earle Tomemange, Baron Raticide, Waowler, and Skaratchi. Other cats of his include Madame Bianchi, Madame Catalini, Othello, Ovid, Pulcheria, Sir Thomas Dido, and The Zombie.  
 Rupi, belonging to Jethro Tull leader Ian Anderson; inspired title song of his 2004 solo album Rupi's Dance.  
 Rybolov, tabby belonging to Alexander Borodin; Russian for "fisherman."

Sadie, Siamese belonging to James Mason; talked about in Mason's *The Cats in our Lives* (1949).

Sam,	belonging	to	Andy	Warhol.	
Samantha,	belonging	to	Helen	Gurley	
Samson,	Siamese	belonging	to	Frank	Bruno.
Sans Lendemain, belonging to Peggy Guggenheim; translates literally as "without (the) day after."					
Sara,	belonging	to	Regis	Philbin.	
Sarah Snow,	white long-haired, green eyed cat	belonging	to	Kingsley Amis.	
Sascha,	belonging	to	Regis	Philbin.	
Sascha,	belonging	to	Yoko	Ono.	
Scratchaway,	belonging	to	Thomas	Hood.	
Selima, Tortoiseshell tabby belonging to Horace Walpole; drowned in a goldfish bowl, inspiring Thomas Gray's poem <i>Ode on the Death of a Favourite Cat Drowned in a Tub of Goldfishes</i>					(1748).
Señor,	blind cat	belonging	to	Stefanie	Powers.
Séraphita, white cat belonging to Théophile Gautier; mentioned in <i>La Ménagerie Intime</i> .					
Serpolet, belonging to Cardinal Richelieu; fond of sunning himself in the window; one of many cats Richelieu had when he died in 1642.					
Shan,	Siamese	belonging	to	Susan Ford,	Gerald Ford's daughter.
She,	belonging	to	Linda	Evans.	
Sheba,	belonging	to	Sally	Jessy	
Sheba,	belonging	to	Vivica	A. Fox.	
Sheena,	belonging	to	O.J.	Simpson.	
Shuang-mei, belonging to Emperor Chu Hou-Tsung (China); her name meant "Frost-					

eyebrows."

Silkhat, belonging to Van Heflin.  
Simpkin, belonging to Cecil Day-Lewis.

Sizi, belonging to Albert Schweitzer. Lived with Schweitzer at his clinic in Africa; though left-handed, he would write prescriptions with his right hand when she was sleeping on his left arm.

Smokey, the third cat of Koko the gorilla.  
Smudge the Glasgow People's Palace cat.

Snookie, belonging to Vivica A. Fox.  
Soda Pop, Abyssinian belonging to Richard Patrick.

Soumise, belonging to Cardinal Richelieu. Richelieu's favorite; one of many cats he had when he died.

Sweetface, belonging to Kim Gordon and Thurston Moore of Sonic Youth.  
Sweet Pea, belonging to Jann Arden.

Sylvia, belonging to Compton MacKenzie; one of many pet cats

T.K., belonging to Betty White.  
Tabitha Longclaws Tiddleywink, belonging to Thomas Hood; scratchaway's mother.

Taffy, belonging to Christopher Morley. Theiving cat commemorated in Morley's 1929 poem In Honor of Taffy Topaz.

Taki, black, female Persian belonging to Raymond Chandler; his "feline secretary" to whom he always read the first drafts of his murder mysteries.

Tantomile, belonging to T.S. Eliot.

Tata, belonging to George Booth. Originally named "James Taylor," until Booth found it was a girl.

Teeny, belonging to Martha Stewart.

Thisbe, belonging to Cardinal Richelieu. She & Pyrame were named after the mythological lovers because they slept together with paws intertwined.

Thruster, belonging to Ernest Hemingway; one of 30 of his pet cats.

Tiger, belonging to Charlotte & Emily Brontë. Played at Emily's feet while she wrote Wuthering Heights.

Tiger, belonging to Aaron Neville.

Tigerlily, belonging to Molly Ringwald.

Tigger, belonging to Vivica A. Fox.

Timothy, white cat belonging to Dorothy L. Sayers; mentioned in two poems: For Timothy and War Cat.

Toby, belonging to Dedee Pfeiffer.

Tom, Jr., belonging to Harriet Elizabeth Beecher Stowe.

Tommy, belonging to Alexander Borodin.

Tommy, belonging to Anne Frank. An attic cat who was occupying the attic when Frank and her family arrived; he always won the fights Boche picked with him.

Tootoose, belonging to Compton MacKenzie; one of many pet cats.

Topaz, belonging to Tennessee Williams.

Trixie, belonging to Ruskin Spear.

Trixie, belonging to the 3rd Earl of Southampton. After the Earl was put in the tower of

London, Trixie allegedly found him and stayed with him there for the next two years.  
 Tuffy, belonging to Ann-Margret.  
 Turkey, belonging to Janet Leigh.

Vashka, belonging to Czar Nicholas I.  
 Virgil, belonging to Robert Southey.

Weasel, belonging to Cyndi Lauper.  
 White Heather, black & white Persian belonging to Queen Victoria in her old age; upon her death became the pet of Edward VII.  
 Whitey, belonging to James & Pamela Mason.  
 William/Williamina, belonging to Charles Dickens; was "William" until she had kittens which she insisted on moving into Dickens' study.  
 Willie, belonging to George Burns. Why was he so named?; explained Mr. Burns, "When you told the cat what to do, it was always a question of will he or won't he!"  
 Windy, belonging to Guy Gibson; as a WWI dambuster, Gibson took Windy on many of his wartime missions.  
 Wiscus, belonging to T.S. Eliot.  
 Woody, belonging to Jean Michel Jarre.

Yum-Yum, belonging to Brian Aldiss

Zara, belonging to Horace Walpole.  
 Zero, belonging to Billie Joe Armstrong.  
 Zizi, Angora belonging to Théophile Gautier; who liked to walk up and down the piano keys; mentioned in La Ménagerie Intime.  
 Zoë, black and white female cat belonging to Gabriele Rossetti.

## Unnamed

Marie Antoinette had 6 Angoras that survived her and were shipped to America on the boat that was supposed to carry her to safety.  
 Fred Astaire's black cat.  
 Tallulah Bankhead's lion cub.  
 Kim Basinger demanded custody of her cats in her divorce.  
 Charles I's lucky black cat that died the day before the King was arrested. See 'Luck' below.  
 Robert de Niro has had several cats.  
 King Edward VII's several manx cats.  
 Teri Garr's orange tabby.  
 Laura Gilbert's orange tabby.  
 Melanie Griffith's tabby and white cat.  
 Charles Laughton kept strays.  
 Robert E. Lee had several cats he referred to often in letters to his family.  
 Lenin's cat.  
 Louis XV's white cat who came to his bedroom every morning and was allowed to play on

the	table	at	Royal	Councils.
Henri	Matisse's	black	cat	
Freddie Mercury	owned many cats throughout his life.	His solo album Mr Bad Guy is dedicated to cat-lovers all over the world.		
Muhammad	was saved from an attack of a poisonous snake by a cat.			
After this mystery Persian's death,	it was stuffed & kept by Mussolini's daughter.			
Max	Ophüls'	white	Persian.	
Petrarch	had his pet	embalmed in the	14th	century.
Pablo		Picasso's		Siamese.
Maurice	Ravel's	30-40	pets.	
Edward	G.	Robinson's		Siamese.
Saint Gregory the Great	He greatly enjoyed holding his cat in his arms while he prayed.			
Stalin's			cat.	
Elizabeth Taylor	has had several	cats.		
James McNeill Whistler's	brown, gold and white mother cat and her kittens.			
Cardinal Thomas	Wolsey's	large	tabby	cat.
Franco Zeffirelli's	Persian.			

## Wild cats

Ba-tou, African Wildcat belonging to Colette; mentioned in La Maison de Claudine. Elsa the lioness described in Born Free by Joy Adamson. Italia, Benito Mussolini's pet lioness. Kamuniak, Kenyan lioness who adopts oryx calves. Panar Leopard, The, He killed 400 people before he was shot by famed hunter, Jim Corbett. Slats, first lion to play Leo the MGM Pictures trademark/mascot. Smokey/Smoky, bobcat belonging to Calvin Coolidge; trapped wild in Tennessee and given to him as a gift. Thak Tigress, The, killed by famed hunter Jim Corbett.

## See also

- [List of fictional cats](#)

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