

Whiskers: Your Cat's Finger on the World

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NEVER cut a cat's whiskers! Cats have about 24 moveable whiskers, twelve on either side of his nose, arranged in four rows in a pattern as individual as our fingerprints.

Whiskers

It's said that if a cat's whiskers touch a mouse in the dark, the cat reacts with the speed and precision of a mousetrap. Your cat's senses evolved from those of the wild cats, a long line of hunters and predators, and are designed for the purpose of stalking, hunting and killing.

Whiskers, or *vibrissae*, serve as delicate sense organs of touch and are the equivalent to our fingertips. These whiskers are sensitive to vibrations in air currents: As the air moves, the whiskers vibrate, and cats use messages in these vibrations to sense the presence, size and shape of nearby objects without seeing or touching them.

Cats have about 24 moveable whiskers, twelve on either side of his nose, arranged in four rows in a pattern as individual as our fingerprints. The strongest and thickest are in the middle rows. Small groups of whiskers are situated on other parts of the body as well: high on the outer edges of the cheeks, above the eyes, and on the back of the front legs (carpal vibrissae or "paw whiskers"). Carpal vibrissae are common in carnivores that grasp their prey with their forelegs.

Whiskers are more than twice as thick as ordinary hairs, and their roots are set three times deeper. They are connected to muscle, which allows them to be moved backwards and forwards, and the bottom two rows can move independently of the top two. Whiskers are richly supplied with nerve endings, making each an intricate receptor that allows your cat to sense even the smallest changes in the environment, such as air currents, changes in air pressure, temperature or wind direction.

It's a misconception that cats can see in the dark. Their night vision is better than ours, but it is the whiskers that allow him to get around in the dark. Interestingly, cats that are born blind grow longer and thicker whiskers than sighted cats and they use them to a greater extent. In fact, kittens in the womb grow their whiskers before any other hair, and at birth they are fully functional, while the ears and eyes are not. (be aware that kittens often chew each other's whiskers...they will grow back)

The whiskers are the same width as your cat's body and are used as locators by judging how wide a place is before entering, consequently helping him to determine whether he can fit through small spaces. The lengths of the whiskers are genetically predetermined, so if your cat becomes fatter, he will lose this function.

Hunting cats can move their whiskers back and forth to collect information about the prey. For example, whiskers can reach forward to give information about the captive creature in their mouths. Your cat can determine if the prey is still alive so that he can apply an accurate killing bite. He also knows whether or not he can put the captured animal down. A cat whose whiskers have been damaged may bite the wrong part of the mouse he's attacking.

Whiskers help protect your cat's eyes. Any touch to the whiskers stimulates an eye blink. Whiskers are so sensitive that your cat does not like to have them touched. Because they are so sensitive, whiskers can also be a bother. For example, they sometimes touch the sides of the eating dish if it is not wide enough, and your cat may stop eating rather than experience these irritating sensations.

Take time to notice your cat's whiskers. Their position is an indication of your cat's mood. When your cat is feeling affection his whiskers will point forward and down, but when he feels aggressive, they will be forward and up. When angry or threatened, they will flatten back against the cheeks, while his stalking posture will keep them forward and tense.

Your cat's whiskers are not just a part of his good looks; they fulfill functions of vital importance by supplying sensory information about his environment and his prey and are essential to his survival. If you pay attention, you will gain a deeper respect for the amazing sensitive world of your cat's whiskers.

"WHISKER FATIGUE"

"Whisker fatigue" is actually a condition that can affect cats, causing them a good deal of stress.

Why Do Cats Have Whiskers?

"Cat whiskers are extraordinary sensing hairs that give them almost extrasensory powers." Despite their evolution, whiskers (which scientists call tactile hairs or vibrissae), have remained as features on most mammals in some basic form.

For cats, whiskers are much more than facial adornments that adds to their cuteness. They act as high-powered antennae that pull signals into their brain and nervous system. The ultra-sensitive sensory organs at the base of the whiskers, called proprioceptors, tell your cat a lot about her world. They provide your cat with information regarding her own orientation in space and "the what and where" of her environment. In these ways, whiskers help your cat move around furniture in a dark room, hunt fast-moving prey (by sensing changes in air currents) and help to determine if she can squeeze into that incredibly tight spot between the bookcase and the wall.

What is Whisker Fatigue?

While cats can voluntarily "turn on" the sensory focus of their whiskers exactly where they want, whisker receptors mostly respond to a cat's autonomic system — the sympathetic and parasympathetic nerves that respond to the internal and external environment without conscious control (pupils constricting in response to bright light, for example).

You can think of whisker fatigue as an information overload that stresses out your cat. Because whisker hairs are so sensitive, every time your cat comes into contact with an object or detects movement, even a small change in air current or a slight brush against her face, messages are transmitted from those sensory organs at the base of her whiskers to her brain. That barrage of "messages" could stress out your cat, eventually causing what some people call whisker fatigue.

However, "fatigue" may not be the best description of the condition, since what your cat is feeling is probably more like distaste or aversion than soreness or actual fatigue. In fact, whisker stress is another term some people use for the condition.

What Causes Whisker Fatigue?

While your cat relies on her fetching facial antennae to navigate the world, she can't tune out unnecessary messages the way we filter out background noise. She inadvertently finds stimulation in the most common and ever-present situations, like at her food or water bowl. **If her whiskers touch the sides of the bowl every time she dips her head to sip or eat, this can cause whisker fatigue, the theory suggests.**

Your cat's behavior at her food and water bowl will tip you off that she is stressed. Some signs to watch for include pacing in front of the bowls, being reluctant to eat but appearing to be hungry,

pawing at food and knocking it to the floor before eating or acting aggressive toward other animals around food. Of course these behaviors can also be related to potentially serious health conditions like dental disease, oral tumors, *gastrointestinal* diseases, behavioral problems and more, so if you have any concerns about your cat's well-being, you should make an appointment with your veterinarian.

Many vets, regardless of their opinions on whisker fatigue, agree that cats often find eating out of a bowl unappealing in general and providing a flat surface for meals is preferable.

Whisker fatigue is not a disease (and is not caused by or related to any type of illness) and appears to manifest primarily with the repeated daily contact with food and water bowls. However, a cat who is stressed is not happy, and if she avoids eating and drinking, she might become malnourished and/or dehydrated.

How Can Whisker Fatigue Be Prevented?

Luckily, preventing or stopping stress related to whisker fatigue at feeding time is as easy as replacing your cat's food and water bowls. At meal time, provide a flat surface or a wide-enough bowl for food and water so that her whiskers don't touch the sides of the bowl. In a pinch, a paper plate can serve as a suitable food dish.



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