

# Keen sense of smell motivates cat behavior

Just a whiff of tuna can jolt my cat, Shaka, from a sound sleep.

The aroma enters his nostrils and they begin to quiver. The next thing I know, he is there to share my lunch. Some cats get trained to the sound of can openers, but others, such as Shaka, use their keen sense of smell to alert them to important



## THE CAT DOC

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items such as the opening of a tuna package.

Smell plays important roles in eating, friend or foe recognition, elimination, and sexual behavior in cats.

Smell, also known as olfaction, is a highly developed sense at birth in cats. Newborn kittens establish a nipple preference on the nursing queen, and smell is used to guide a kitten back to his chosen site. If a young kitten wanders from his "nesting" area, olfactory cues will guide him until vision becomes the main guide at 3 weeks of age.

An interesting aspect of smell in cats is the vomeronasal organ, which is responsible for pheromone communication. Pheromones are chemical communicators: odors produced by one individual and detected by another of the same species.

Flehmen is a behavioral response to vomeronasal stimulation. A cat exhibiting Fleh-

men will raise its head, draw its lips back, wrinkle his nose, and hold his mouth partially open. Many of you have observed this behavior in your own cat without knowing what it was. Situations that could initiate a cat's Flehmen response are being around a female cat in heat, smelling urine of an unfamiliar cat, or smelling where another cat has rubbed and left its oily secretions.

Social interaction between cats starts with the olfactory information obtained when cats first approach face-to-face, and then face-to-anus. A cat will identify familiar cats and greet non-hostile, unfamiliar cats this way. When a cat is greeting a human, the same behavior pattern can be observed.

Smell plays a role in elimination behavior. Urine and fecal odor buildup can be important factors in feline house-soiling. A cat may find his own odors offensive when a litter box is not kept clean, and then choose another location to eliminate.

Neutralizing urine odors helps eliminate behavioral house-soiling. Although this may not stop the problem, it will reduce the factor stimulating a cat to return to the same location. A cat's sensitive sense of smell will draw him back to a previous site unless sufficient neutralization is achieved. There are numerous products on the market, including white vinegar, that may work. The point to remember is that if you clean with ammonia-based

products, you will intensify the odor.

The sense of smell is crucial in the feeding behavior of cats. Cats that are unable to smell may not eat. Cats that are sick with upper respiratory infections and have congested nasal cavities often lose their appetites. Pet food companies research the odors that stimulate appetite along with tastes to develop their products.

Researchers have identified 14 chemicals that affect cat behavior when inhaled. The most notorious of these is catnip, an herb in the mint family. About 60 percent of cats possess the gene responsible for catnip sensitivity. Catnip is considered hallucinogenic, and prolonged use could lead to a general decrease in awareness.

Overall, catnip is considered a safe substance. A cat may smell, lick, chew or eat catnip when presented with it. Some like to roll on and hold the catnip toy in their paws. This releases the volatile oils in the leaves, which the cat smells.

Age and previous exposure affect response to catnip. Stressed or fearful cats and kittens under the age of 5 months are not very responsive to catnip.

Smell is an interesting sense in cats, but I sometimes wish I could eat a tuna sandwich in peace.

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