



# MANHATTAN CAT SPECIALISTS

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## Catnip, the Mysterious Herb

Gigi loved it, but her brother Brandy was indifferent. Crispyloves it, but Ethel was unmoved by it. There you have it: a quick inventory of my past and present cats' reaction to the plant from which this magazine derives its name.

Fourteen chemicals of diverse biologic origin, including certain plants, are known to affect the behavior of the cat when their fragrances are inhaled. The most famous of these, of course, is catnip. For centuries, ailurophiles (cat lovers) have marveled at the delight cats seem to get from smelling, nibbling on, and rolling in the stuff.

With the possible exception of man (i.e. eccentrics who claim to get a "buzz" when they smoke the stuff), a behavioral response to catnip is found only in members of the feline family. Lions in particular demonstrate a rather spectacular response, and hunters have used catnip to lure bobcat and lynx. Leopards, jaguars, pumas, ocelots, and several other so-called lesser cats also respond to catnip.

The typical catnip scenario for the domestic cat initially involves the offering of some catnip leaves, either fresh or dried. Cats will first smell, and then lick or chew the stuff for a few minutes. Cat owners then stand back and watch the fun begin. Some cats show a "like, wow, man" response and just gaze off into space, that being the extent of their reaction. Most "responders" progress to rubbing their cheeks and chin in the catnip source and act a little dizzy. The intense responders will rub their bodies on the ground while rolling from side to side, purring, growling, and perhaps leaping into the air. Some cats get a little frisky and will smack a fellow housemate kitty on the head. Reactions vary, although most cats experience both a relaxing and a stimulating effect. The complete response lasts for five to fifteen minutes, with a type of satiation developing so that a response cannot be evoked again for at least an hour or two. Approximately 30% of adult cats show zero or minimal response to the plant, and nearly all kittens under 2 months of age show no reaction to catnip and often actively avoid it. Animals that are fearful or under stress will have a decreased reaction to catnip. Males and females respond equally, although there's some evidence that among susceptible cats, males respond a bit more strongly than females. Whether a cat is a responder or not is based on heredity; a recessive gene is involved, so that two cats from the same litter may have different responses to the plant, like my Brandy (bored) and Gigi (thrilled). It's probably not a good idea to give it to a cat that goes outdoors, since the cat might not be able to care for itself while under its influence.

So what exactly is in this stuff? Catnip (*Nepeta cataria*) is a member of the mint family. In fact, it has also been referred to as "catmint". It is related to common kitchen herbs like thyme and sage, and can be easily cultivated as a houseplant. Years ago, in England, dried catnip leaves put in boiling water was a popular tea for humans – it was said to have a calming effect. When the plant is

crushed and the oils are distilled, catnip extract is obtained. Studies have shown the active ingredient in the oil is nepetalactone. This chemical repels certain leaf-eating insects, providing protection for the plant. It is the smell of this oil that triggers the response in cats. Anesthetizing the nasal passages and obliterating the sense of smell in a cat will abolish the catnip reaction.

Interestingly, the plants that belong to the catnip family are indigenous only to the Old World, and yet, members of the feline family that respond to catnip are found in both the Old World and the New World. So, if you think about the catnip response from an evolutionary standpoint, it seems clear that some species of cats have acquired the ability to display the catnip response even though the natural source of nepetalactone was not present to influence the evolution of this behavioral response. (Yet another fun fact that adds to the overall mystique of the feline).

Why catnip produces the response that it does is not fully understood, but there are several possible explanations. There is an unmistakable similarity between the catnip response and the rolling and squirming of female cats during courtship and just after copulation, leading some investigators to conclude that catnip may be acting like a hormone, activates a neural system in the brain related to female sexual behavior. Another school of thought is that catnip produces a form of pleasurable behavior unrelated to sexuality, and that the rolling and rubbing is simply a manifestation of a pleasure response. In 1972, Canadian researcher R.C. Hatch reported in the American Journal of Veterinary Research that the chemical structure of the active ingredient in catnip is very similar to that of LSD, leading to speculation that the bliss that cats seem to experience is similar to the reaction humans experience to these drugs. In other words, if you'll pardon my French, the cat is simply stoned out of its mind.

Cat owners are undoubtedly familiar with the myriad of catnip toys, sprays, and related paraphernalia available in pet shops and online, as these products are consistently popular with the cat-loving public. Perhaps the most notable of the catnip items is Cosmic Catnip. Approximately 25 years ago, Leon Seidman, a graduate student, went searching for the ultimate catnip for W.B., his cat. Avoiding the commercial products, Seidman went to drug stores where catnip was sometimes kept in jars and sold along with other pharmaceutical herbs. W.B. gave it a try. His response, (if cats could speak, mind you) was "whoa dude, this is killer weed". That summer, Seidman visited a friend in Virginia and found catnip growing wild on his friend's farm. He grabbed a bunch of it and zoomed back home to Maryland where he began a small business selling what he called Cosmic Catnip, a especially potent variety. Today, Seidman and his wife Pamela are president and vice president of Cosmic Pet Products, Inc. which packages and sells around 140,000 pounds of catnip a year in the United States, Canada, and Europe. According to the Pet Industry Joint Advisory Council, a Washington-based trade group, no other company produces more of the stuff than Seidman. When the scent of my cats' catnip toys begins to fade, rubbing a fresh batch over the surface of the toy freshens it up, and the fun begins anew.

Cat owners who worry about whether they may be indulging their cat too frequently should be told that, like anything special, it should be offered for a little while, then put away for a few days, so that it remains a special treat. Catnip is safe and not addictive, however, because of the altered mental state that it induces in most cats, cat owners should be warned that they should avoid letting their cat drive the car or operate heavy machinery while under the influence.