

**Characterization of plant eating in cats**

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After reporting the frequency and demographics of plant eating in dogs, we launched a similar study on cats, taking into account the need to exclude cats that are indoor without access to plants, and cats that are outdoors where owners cannot see if they are eating plants. Our web-based survey of cat owners, received 2,296 returns. The main inclusion criterion was that the respondent (owner) had to have been able to see the cat's behavior 3 or more hours a day. The resulting 1,021 returns revealed that 71% of cats had been seen eating plants at least 6 times, 61% over 10 times, and 11% never eating plants. Comparing cats seen eating plants at least 10 times with those never seen eating plants, there were no differences in age range, neuter status, source or number of cats in the household. Of cats seen eating plants at least 10 times, 67% were estimated to eat plants daily or weekly. When asked about how their cat seemed to feel prior to eating plants, 91% of respondents said their cat was almost always appeared normal, beforehand. Vomiting was a bit more common – 27% reported the cat frequently vomiting after eating plants. The prior study on plant eating by dogs had very similar findings with regard to frequency of plant eating, appearing normal beforehand, and vomiting 20-30% of the time afterwards. Among young cats, 3 years of age or less, 39% engaged in daily plant eating compared to 27% of cats 4 years or older ( $P < 0.01$ ). While percent of younger cats showing no signs of illness prior plant eating was similar to older cats, just 11% of the younger cats were observed to frequently vomit after eating plants compared to a significantly higher 30% of older cats ( $P < 0.001$ ). These findings on more frequent plant eating by younger animals and less likelihood of vomiting afterwards parallel similar findings on dogs. A common explanation given for plant eating in cats and dogs is that they feel ill beforehand and plant eating induces vomiting, and they may feel better. Our findings here do not support this explanation; nor do the findings support the hypothesis that young animals 'learn' plant eating from older ones. The explanation offered here is that regular plant eating by domestic carnivores is a reflection of an innate predisposition of regular plant eating by wild ancestors which is supported by numerous reports of wild carnivores eating plants, as shown mostly by the non-digestible grass and other plant parts seen in their scats. Studies on primates reveal that non-digestible plants purge the intestinal system of helminthic parasites. Given that virtually all wild carnivores carry an intestinal parasite load, regular, instinctive plant eating would have an adaptive role in maintaining a tolerable intestinal parasite load, whether or not the animal senses the parasites.