

## To Scratch or Not to Scratch

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### Introduction

Cats are common pets around the world living cooperatively with humans initially primarily as a predator of rodents and now perhaps best loved as a companion. The domestic cat is currently the most common pet in the world, and 30% of US households own at least one cat.<sup>1,2,3</sup> In 1998 estimates suggested 76 million cats in Europe, 7 million in Japan and 3 million in Australia<sup>4</sup>. More recent figures indicate in Europe there are 99 million cats and it is estimated that 24% of European households own at least one cat.<sup>5</sup> Feline popularity maybe due in part, to the cat's small size, relatively low maintenance and space requirements. Cats are highly adaptable to a variety of environments.

Though scratching is a normal part of the feline repertoire, undesirable scratching behavior is the second most common behavior problem reported by cat owners.<sup>6</sup> Motivation for scratching has long been explained as a means of sharpening claws and maintaining the system that allows claw extension and withdrawal, but this may not reveal the entire motivation for this behavior. The claws being both effective weapons and tools involved in complex communications. The motion of scratching likely has functional benefits: sharpening the claws, removing the outer sheath of the nail, exercising the muscles of the forelimbs and spine and facilitating stretching. Feline communication to other cats is facilitated by the deposition of scents and pheromones from the interdigital glands. Since serious conflict may arise when a cat encounters an unfamiliar cat, their ability to communicate by deposition of semiochemical messages is self-preserving.<sup>7</sup> Social tension between housemate cats may result in an increase in many marking behaviors, including scratching.<sup>8,9,10</sup> Scratching provides important visual and olfactory communication of both immediate and long-term social messages.<sup>11,12</sup> Destructive behaviors can frustrate pet owners, who often resort to punishment including yelling, spraying and startling the cat in a variety of ways to cause the cat to stop the undesired behavior. Unfortunately these tactics result in fear, avoidance and further increases anxiety, resulting in an exacerbation of the inappropriate scratching behavior.

Scratching on household items or in desired locations is the second most common behavioral complaint of pet owners, with 60% of owners reporting it as problematic<sup>13</sup> which may be considerably under reported to veterinarians or behaviorists.<sup>14</sup> Consequently, there is a growing need for veterinarians to provide counseling on the prevention and management of this undesirable behavior.<sup>15</sup> Traditionally, veterinarians have advised owners to address this problem by any of a number of methods, including providing scratching posts, training them to use such posts, clipping nails, plastic nail coverings or (commonly in the US) onychectomy. Scratching of furniture is the primary reason that owners choose to declaw their cats, particularly in the US, with 86% presenting their cat for declaw due to household damage.<sup>16</sup> Many cats are still declawed but onychectomy is a controversial procedure. It provides a solution for furniture scratching and clawing injuries that may save many cats from relinquishment.<sup>17</sup> However, it presents a welfare issue and is uncommon and/or illegal in many parts of the world. While there are no scientific data showing that declawing contributes to an increase in undesirable behavior, declawing subjects the cats to surgery, amputation, discomfort and pain for what is essentially a normal behavior.<sup>18</sup>

One internet study suggested that cats will use a scratching post if one is provided<sup>19</sup> but did not identify the essential features of the most appealing scratching post. Effective management of feline scratching on household objects would enhance the welfare of the cat and strengthen the pet-owner bond, by removing a potential cause for punishment and onychectomy.

### Cat scratching behavior: an Internet based survey

With the objective to examine aspects of the cat, environment and scratching post that might influence scratching behavior, and in an effort to determine how inappropriate scratching behavior might be refocused on acceptable targets, an internet survey to gather owner reported details about their cats scratching behaviors and home

environments was designed by Wilson, Bain, DePorter and Landsberg<sup>20</sup>. Ultimately this survey was posted on several public website resulting in 4331 respondents from 39 different countries over a 4 month period.

A multiple choice survey questionnaire was designed for internet distribution ([www.surveymonkey.com](http://www.surveymonkey.com)). The survey included 27 questions inquiring about owners' observations of their cats' scratching behaviors. The questions were presented in a multiple choice format, with options to enter additional comments for some questions. Pictures were used to clarify types and styles of posts and substrates. The survey was made available on the University of California-Davis School of Veterinary Medicine, Clinical Animal Behavior Service social media sites, and shared by the authors via social media (i.e. veterinary, humane societies, animal shelters, journalists, rescue organizations and cat breeders). Respondents provided demographic information on their cats, and answered descriptive questions about their scratching posts, unacceptable objects or areas their cats scratched in the home and any strategies owners used to either discourage or encourage any scratching behavior. Exclusion criteria included the following: respondents who were not the primary caregiver of the cat; those who did not indicate any favored scratching post by their cat (also including those having no scratching post at home); and those reporting that their cat was declawed. The study on "Owner observations regarding cat scratching behavior: an internet-based survey" has been published in the *Journal of Feline Medicine and Surgery*<sup>17</sup> but some of the key findings are summarized here:

### Key findings<sup>17</sup>

#### Scratching behavior:

- Fifty-two percent of owners observed inappropriate scratching from their cat (n = 2125/4105).
- 65.0% of respondents' cats (n = 1382) exhibited inappropriate scratching at least once per day, with 35.4% (n = 752) exhibiting inappropriate scratching multiple times per day.
- The amount of time spent inside the home by cats significantly affected their frequency of using the post: 75.7% of cats living permanently indoors scratched on their post multiple times per day vs 69.6% for those having outdoor access (P = 0.0006).
- Conversely, the amount of time spent inside the home by cats made no difference on their inappropriate scratching in the home (52.5% of 3004 cats living 100% indoors vs 51.5% of 1059 cats living 0–99% indoors) (P = 0.57).
- Intact or neutered cats (males and females) were as likely to scratch inappropriately.
- Inappropriate scratching decreased with age.

#### Scratching posts/Substrates:

- Owners offered traditionally recommended scratching substrates including rope, cardboard, carpet and wood.
- Carpet was the most *frequently offered* substrate; cats most *often used* rope (sisal) when it was available.
- Most respondents offered several posts (n = 2709; 83.0%),
- Most of the cats used their preferred post at least daily or multiple times per day (n = 2987; 89.3%).
- Frequency of scratching post use did not affect the frequency of inappropriate scratching (P = 0.18)
- Most owners provided at least one scratching post; cats scratched the preferred substrate more often when the post was a simple upright type or a cat tree with two or more levels and at least 3 ft high.
- Narrower posts (base width ≤3 ft) were used more often than wider posts (base width ≥5 ft).
- Geriatric cats between the ages of 10 and 14 years preferred carpet substrate most frequently; all other ages preferred rope first.
- Cats ≤9 years old most often preferred a rope substrate (32.5%), followed by carpet (25.1%) and cardboard (18.2%).
- Cats >10 years old preferred carpet most often (24.7%), followed by rope (22.9%) and cardboard (19.6%).
- Cats ≤9 years old most often preferred cat trees with two or more levels (n = 758; 75.8%) followed by simple vertical posts (n = 680; 69.0%)
- Cats >10 years old preferred the vertical posts most often (n = 155; 21.9%), followed by cat trees with two or more levels (n = 133; 18.8%).
- Cat trees with one or more levels were the posts associated with the least inappropriate scratching reported

(n = 622/1125; 55.3%) compared with any other types (n= 1389/2219; 62.6%) (P <0.0001), whereas those hung or mounted on the wall were associated with the most inappropriate scratching (n = 60/81; 74.1%)

- Unlike appropriate scratching post preferences, cats exhibited inappropriate scratching significantly less frequently when the posts offered were >3 ft high (n = 671/1215; 55.2%) compared with smaller posts (n = 1301/2012; 64.7%) (P <0.0001)
- Inappropriate scratching decreased as the different types/styles of posts increased in the home.
- Inappropriate scratching did not increase if the number of cats or dogs increased in the household.
- Even when a scratching post was provided in the same room as the location of inappropriate scratching, this unwanted behavior was still reported by almost 70% of the owners. This was despite the post being often located quite close to the inappropriately scratched object or area

#### Other strategies from owners against scratching

- Declawed cats were preventatively declawed most often to prevent household item destruction.
- Respondents who rewarded their cat by any means (ie, food treat, verbal praise and/or pet or stroke) were more likely to report that their cat used their preferred post at least once daily (n = 2366/2942; 80.4%) than those that were never rewarded for scratching (n = 201/297; 67.7%) (P <0.0001).
- Respondents with a single cat did not differ in the frequency of reporting inappropriate scratching than respondents with more than one cat in the home (n = 625/1115 [56.1%] and n = 1462/2678 [54.6%], respectively [P = 0.41]).
- However, even when a scratching post was provided in the same room as the location of inappropriate scratching, this unwanted behavior was still reported by almost 70% of the owners. This was despite the post being often located quite close to the inappropriately scratched object or area.

#### **Preventative and treatment applications using synthetic feline interdigital semiochemical**

A new pheromone product, Feliscratch by FELIWAY® (CEVA Santé Animale, France), a synthetic feline interdigital semiochemical (FIS) may be useful for the induction of scratching behavior in cats. (Available in Europe summer 2017). Scratching can be used for territorial marking by depositing chemical signals released by the plantar pad glands and by leaving “signs” on the scratched surface. In a crossover clinical trial of 19 laboratory-housed cats, a synthetic analogue of the feline interdigital semiochemical (FIS) was shown to modify the scratching behaviors of cats considering the latency, duration, and frequency of scratching after treatment compared with placebo.<sup>21</sup> In an in-home test performed on more than 150 feline households by Ceva, the product was proven to redirect cats to use their scratching post after product application on it, while preventing or reducing unwanted scratching performed by cats on furniture.<sup>22,21</sup>

Feliscratch by FELIWAY® is a new innovative pheromone product which offers a simple answer for cat owners to redirect their cat's inappropriate scratching onto their desired location and even the scratching post of their choice. Feliscratch by FELIWAY® is an analogue of the cat's natural pheromone which is deposited as a chemical message on scratched surfaces. When applied to the desirable scratching surface, it mimics the chemical signals which encourage the cat to scratch there again. The dark color mimics the 'scratch mark' in a surface and may also encourage the cats to investigate for chemical signals. Feliscratch by FELIWAY® may provide a unique mechanism to encourage scratching in locations that owners consider desirable, while FELIWAY® Classic may be applied to locations the owners consider undesirable for scratching. This pheromone management strategy would provide the cat with guidance and encouragement for scratching on a surface the owner prefers. Currently Feliscratch by FELIWAY® is newly available in Europe.

#### Recommendations for use of pheromones to reduce undesired scratching and promote scratching on appropriate areas.

1. Use warm water to clean and remove scent marks from all of the undesired scratched areas your cat uses.
2. Provide a tall, sturdy scratching post, ideally with multiple levels.
3. Place the scratching post in an optimal location. This may be where the cat has scratched previously, near your cat's preferred sleeping location or near a window.
4. Provide multiple scratching posts in multicat households.

5. Apply FELISCRATCH by FELIWAY® in accordance with package directions. Use 1 pipette daily for the first week (7 days) and then 1 pipette at the beginning of week 3 and 1 pipette at the beginning of week 4
6. In cases of severe scratching or multiple behavioral stresses, also apply FELIWAY® CLASSIC Spray on the undesirable scratching areas after cleaning them. Repeat spray application daily on these areas.
7. Never spray FELIWAY® CLASSIC on the scratching post as it would prevent the cat from using it!
8. Use a FELIWAY® MULTICAT diffuser if there are conflicts or social tension between housemate cats. Place a diffuser near the involved cat's favorite resting locations.
9. Use a FELIWAY® CLASSIC diffuser if cats are apprehensive in their territory or are displaying urine marking as well.
10. Continue to apply FELISCRATCH by FELIWAY® on the post, until resolution of the undesired scratching behaviour and establishment of a new scratching habit on the desired surface.

## Conclusions

Scratching is a normal activity in the feline repertoire but it is a very commonly the source of behavior complaints by even cat lovers. The ideal scratching post to recommend to a cat owner to help prevent inappropriate scratching is one that includes rope as a substrate, has a vertical scratching surface, is 3 feet or higher, has two or more levels and has a base width of between 1 and 3 feet. Owners who reward their cat for scratching the desired post can increase their cat's use of the intended scratching post. In addition the strategic use of FELISCRATCH by FELIWAY® to encourage scratching in desired locations will enhance the qualities of the perfect scratching surface. If needed, the strategic use of FELIWAY® CLASSIC to be applied on surfaces which the cat has selected but the owner would prefer the cat not scratch. Used in combination these strategies will provide owners with the tools to mitigate their cats destructive scratching.

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## RESOURCES:

**International Cat Care**  
[www.icatcare.org/](http://www.icatcare.org/)

**The American Association of Feline Practitioners (AAFP)**  
<http://www.catvets.com/guidelines/position-statements/declawing>

**Feliscratch**  
Information on destructive scratching provided by Ceva.  
<http://www.feliway.com/uk/Cat-behaviour/How-to-stop-cat-scratching-furniture>

**PAW PROJECT**  
[www.pawproject.org](http://www.pawproject.org)

The Paw Project's mission is to educate the public about the painful and crippling effects of feline declawing.

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- <sup>22</sup> Source: Feliscratch by FELIWAY brochure. Study results publication under review.