bark & whiskers

Cat Tips

Did You Know That This Makes Your **Cat's Heart Leap for Joy?**

Cats are well known for either ignoring this human noise or hiding from it. But that may be because the specific noises aren't the kind of soothing that makes a cat's heart purr. But when researchers did this, cats used their scent glands to claim this as their own.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Feline companions dislike loud music and most are indifferent to human music even when played at low levels ٠
- A team of researchers collaborated with a musician to create music that would be appealing to cats, based on ٠ natural feline vocalizations
- The species-specific music was played for domestic cats in their homes, and many of the cats showed their ulletapproval by rubbing their head against the speakers playing the music
- Studies suggest the right music played in veterinary offices and animal hospitals may reduce stress and • anxiety in cats, and promote healing

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If your cat is like most, she probably isn't particularly moved one way or the other when music is playing in your house. Indeed, most kitties seem utterly indifferent to music.

However, a recent study published in the journal Applied Animal Behaviour Science suggests it's not that cats have no interest in music — it's that their humans don't play the type of music that appeals to them.¹

Charles Snowdon, PhD of the University of Wisconsin-Madison and a team of researchers set out to discover sounds that are appealing to cats, and turn those sounds into music composed by David Teie of the University of Maryland School of Music. Teie and Snowdon have teamed up in the past to create music for tamarin monkeys.

Creating and Testing Music Specifically for Cats

The researchers listened to the natural vocalizations of cats to match music to the same frequency range. They also added tempos the cats might naturally find appealing, including the tempo of purring, suckling, and birds chirping.

They also incorporated sliding notes in the music, since cats use lots of sliding frequencies in their vocalizations.

Next, the researchers visited 47 pet cats in their homes, with their owners present. They brought along their new musical creations, and also two recordings that are known to be pleasing to humans — Gabriel Fauré's "Elegie" and Johann Sebastian Bach's "Air on a G String."

When the human music was played, the cats showed zero interest. But when the researchers played the special catcentric recordings, things got interesting. The kitties perked right up when "their" music was playing — so much so that many of them rubbed their heads against the speakers.

Cats have scent glands along the length of their tails, on each side of their head, between their front paws, and other locations on their bodies. When your kitty rubs against an object or person (or another pet), he's claiming that thing or creature as his own.

In the study, the cats "claimed" the speakers from which the melodious feline-friendly tunes emanated.

Species-Specific Music May Benefit Shelter Cats

Most of the 47 cats were mixed breeds, so the study didn't reveal whether certain breeds respond to music differently than others. But interestingly, the study did suggest that younger and older cats were more responsive to species-specific music than middle-aged cats.

The researchers think their musical creations could benefit shelter cats — especially kitties who have been accustomed to having a human around:

"We think of cats as highly independent of their human servants," says Snowdon, "but there is some research showing that cats experience separation anxiety, which is greater in human-raised cats than feral cats."²

You can listen to David Teie's feline-specific creations at Music for Cats.

The Right Music Can Reduce Stress During Feline Vet Visits

Music can also be beneficial in helping to calm frightened, stressed cats in veterinary offices and emergency animal hospitals.

Kitties are very sensitive to unfamiliar smells, sights and sounds. Strange, potentially threatening noises are particularly distressing, and this type of stress can affect an animal's physiologic state.

Dr. Narda Robinson, who writes for Veterinary Practice News, about evidence-based approaches to complementary and alternative veterinary medicine (CAVM), asks her fellow veterinarians:

"Why not modify our clinic soundscapes to keep stress and anxiety to a minimum and reduce over-reliance on sedatives and other psychoactive agents?"³

Music as Medicine

A 2013 Cochrane review of studies of music-as-medicine for human patients concluded:

"Music listening may have a beneficial effect on preoperative anxiety. These findings are consistent with the findings of three other Cochrane systematic reviews on the use of music interventions for anxiety reduction in medical patients. Therefore, we conclude that music interventions may provide a viable alternative to sedatives and anti-anxiety drugs for reducing preoperative anxiety."⁴

According to Robinson, scientific studies point to the significant effects of sound on the nervous system, and the fact that noise in veterinary clinics can either help relieve or worsen pain control in animal patients.

A 2012 systematic review of music used as a complementary pain reliever in hospitalized humans found that not only did music have a positive effect on pain, it also decreased anxiety, muscle tension, and heart rate, and reduced the need for opioid pain medication.⁵

"Even simple rhythms strongly impact the nervous system," says Robinson. "The process of synchronizing physiologic processes to external rhythms is called 'entrainment."⁶

Reducing Your Cat's Auditory Stress

Studies in humans show that music modulates cardiac and neurologic function, thereby reducing stress through both biochemical and neuromodulatory means.⁷

Loud music, the noise of much of today's TV programming, and arguments among humans in the home elevate stress levels and promote a systemic inflammatory response in pets. Slow classical music, or better yet, species-specific music created just for cats, can help reduce your kitty's auditory stress.

Sources and References

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- ¹ Applied Animal Behaviour Science, May 2015, Volume 166, Pages 106-111
- ² Discovery News, February 26, 2015
- ^{3,6} Veterinary Practice News, January 28, 2014
- ⁴ Music interventions for preoperative anxiety, Cochrane Database Review, June 6, 2013
- ⁵ Pain Management Nursing, 2014 Mar;15(1):406-25
- ⁷ European Journal of Internal Medicine. 2011 Aug;22(4);371-4