

Why This Popular Feline Stress-Buster Isn't Recommended

It's made just for cats who experience stress and elevated cortisol levels. But it's a terrible approach that doesn't address the root causes. Five great ways to help calm your stressed out kitty, including 6 scents that cats are known to respond well to and the most relaxing type of music for cats.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Cats are highly susceptible to specific external stressors, including changes in their environment or daily routine
- Japanese researchers conducted a small study to evaluate the effects of diet on feline stress; unfortunately, the test food was a processed dry diet containing two calming nutraceuticals
- Study results showed a significant decrease in the stress hormone cortisol in cats fed the test diet, however, feeding kibble to cats on a regular or long-term basis creates diet-related stress
- Adding calming nutraceuticals to pet junk food isn't a good approach to managing stress in your cat
- A moisture-dense, fresh, biologically appropriate diet coupled with environmental enrichment that reduces all forms of sensory stress is the best way to help your cat feel calm and comfortable

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If a cat owns your heart, no matter how devoted a guardian you are, you're probably never entirely sure what makes your feline friend tick. Kitties are indeed an enigmatic species — one that will never be fully domesticated, which is, of course, part of their charm!

One thing we do know about cats, though, is they are very easily stressed. You may not be aware of it, but your cat is susceptible to a variety of external stressors, including:

- Changes in the environment
- Forced confinement in a **kennel or carrier**
- Unexpected methods of handling and being handled by strangers
- Changes in daily routine
- Sustained exposure to high-frequency sounds

Research shows that cortisol output (production of the stress hormone cortisol) is elevated in kitties who are chronically exposed to these types of stressors.

The Stress Response

Stressful situations provoke a fight-or-flight response in all animals. When ongoing stress is present, the fight-or-flight switch stays in the "on" position, which eventually throws all body systems out of balance.

During a stressful event, glucose is released throughout the body, and blood carrying glucose and oxygen is diverted toward organs used during physical exertion like the heart, skeletal muscles and brain.

If this cycle occurs so often there is a constant release of glucose and chronic overworking of fight-or-flight organs, it's easy to predict the result.

Systemic inflammation is a result of chronic stress. A body that remains in a constant state of arousal, ready to fight or take flight at all times, will experience declining function and/or disease in some or all important systems including digestive and urinary, immunologic, musculoskeletal and cardiovascular.

Studies in humans have linked chronic stress to susceptibility to infection and cancer, as well as various metabolic syndromes, including diabetes. The physiologic changes that occur in older animals, including cats, are also seen as a result of chronic stress.

The same power the body possesses to fight or flee under stress, when given no outlet, will wear the body down and ultimately cause death. Thus the expression "stress kills."

Study Looks at the Effects of Diet on Kitty Stress

In 2015, a group of Japanese veterinary researchers studied a small group of cats to evaluate the effects of diet on the feline stress response.¹ Their objective was to learn how diet might influence the cats' plasma cortisol levels in a clinic setting, and their urinary cortisol levels at home in their own environment.

Plasma (blood) cortisol levels measure acute stress such as the type kitties experience during veterinary visits. Urinary cortisol levels measure chronic changes in stress.

The study involved 21 indoor-only, healthy adult pet cats aged 1 to 10 years old. Eleven cats comprised the control group; the remaining 10 made up the test group.

During the eight-week trial, the control cats were fed a regular commercial diet, and the test group was fed a different commercial diet called Feline Calm, which contained higher levels of tryptophan than the regular diet, plus a milk-derived bioactive peptide called alpha-casozepine.

Plasma cortisol levels (an indicator of acute stress) were measured immediately before and immediately after the eight weeks.

Urinary cortisol levels, which provide an estimate of the change in cortisol over time, were measured a day or so before the initial blood draw, and again after the eight-week trial, but before the cats visited the veterinary hospital.

In addition to those measures, the researchers asked the cats' guardians to complete a behavioral assessment over the eight-week trial.

Study Says — Nutraceuticals Significantly Lowered Stress Hormone Levels in Study Cats

The study results showed no significant difference between the two groups of cats in their blood cortisol levels at the time of an acute stress event. The researchers concluded the test diet provided no measurable benefit in reducing the cats' acute stress response.

However, the cats receiving the study diet showed an increase in blood tryptophan levels of 46%, compared to the control group's 10% increase. (The study diet contained more tryptophan than the control diet.)

Urinary cortisol levels (a measure of chronic stress) were also significantly different between the two groups. Cats fed the study diet had about a 40% decline in cortisol levels over the eight-week trial, while the control cats had no change.

The researchers speculated the decrease in cortisol levels was the result of both the nutraceutical alpha-casozepine in the study diet, which has an anxiolytic (antianxiety) effect in cats, as well as the tryptophan, which is known to reduce anxiety and fear-related stress in animals.

Results of the cat owners' behavioral assessments showed no significant changes in observed behavior for either group of kitties.

What's the Point of Adding Nutraceuticals to a Junk Food Diet?

The results of this small study are interesting in that they demonstrate the potential benefits of nutraceuticals — in this case, tryptophan and alpha-casozepine — in the management of feline stress. What's not agreeable about the study is the cats were fed processed kibble diets with the nutraceuticals baked in.

The Feline Calm product is a "prescription" diet produced by Royal Canin, and is cat junk food. The first six items on the ingredient list are chicken byproduct meal, corn, brewers rice, wheat gluten, corn gluten meal, and wheat.

For those of you who need a refresher, the AAFCO (Association of American Feed Control Officials) definition of chicken byproduct meal:

"Chicken byproduct meal consists of the dry, ground, rendered, clean parts of the carcass of slaughtered chicken, such as necks, feet, undeveloped eggs and intestines — exclusive of feathers except in such amounts as might occur unavoidable in good processing practices."

Translation: it's garbage. Chicken byproduct meal is the pieces and parts left after the breast and white meat are removed from the chicken. After all the good stuff is harvested for the human food industry, the by-products remain. Beaks, feet, feathers, wattles and combs are chicken byproducts.

There could be something beneficial thrown in, like the heart or gizzard, but because there's such potential for undesirable pieces and parts in by products, it's better to avoid them altogether.

The other five ingredients at the top of the list are grains, which are wholly inappropriate nutrition for cats. The corn products are without a doubt genetically modified, not to mention they are highly allergenic and have the potential for contamination with deadly aflatoxins.

Why the Study Diet Will Ultimately Create More Problems Than It Solves

We could discuss all the problems associated with convenience pet foods for days, but suffice it to say that a processed dry diet such as this, especially when fed once or twice a day every day for weeks, months or years, will sooner or later create metabolic stress in the vast majority of cats.

Baking a couple of anxiety-reducing nutraceuticals into the mix may temporarily decrease your cat's cortisol levels, but they absolutely do not address the metabolic stress created by this biologically unsuitable diet. The appropriate food for cats, who are **obligate carnivores**, is a moisture-dense, unadulterated, fresh diet comprised primarily of human-grade (preferably organically raised) animal meat, high-quality animal fat, and a small amount of vegetables and fruits.

The veggies and fruits provide antioxidants and fiber to animals that no longer hunt whole prey. In addition, natural sources of trace minerals, vitamins, and fatty acids need to be added, since the soils in which foods are grown are depleted of many of the nutrients pets need.

What to Do About a Stressed-Out Kitty

The opposite of being stressed is being relaxed, which is why stress management techniques involve pursuits that promote relaxation. For humans, this usually involves an activity — meditating, taking a yoga class, doing some deep breathing, using guided imagery, engaging in physical exercise, etc.

However, for cats it's a bit different. They need an environment ideally adapted for a feline in order to enjoy a comfortable, serene lifestyle. What you want to do for your kitty is think about how she experiences her living situation through the five senses of sight, sound, smell, taste and touch.

- **Reducing visual stress** — Your kitty appreciates variety in the lighting in his environment. Sometimes he wants to sit in the sunshine. Other times he prefers a dark spot to nap or hide out in. Giving your cat a break from unnatural or fluorescent lighting is very important.

Build variety into the lighting your cat is exposed to with items like **boxes**, play tunnels, perches in different spots, closet shelving — even an empty cabinet he can safely access. Boredom causes stress, so you might also want to consider kitty videos or a window perch where your cat can relax and keep an eye on neighborhood happenings or the bird feeder in your backyard.

- **Reducing auditory stress** — Studies show that music modulates both cardiac and neurologic function, reducing stress levels. Slow classical music seems to relax most animals.

Although many people like to have the TV or radio on continuously around the house, it's important to give your cat the opportunity to experience quiet somewhere in the house. Loud music, the noise of much of today's TV programming, and arguments between humans in the home elevate stress levels and promote a systemic inflammatory response.

- **Reducing olfactory stress** — Some smells that can cause stress for your kitty include cigarette smoke, chemical cleaning products, cologne, air fresheners and scented candles. Air quality is critically important for cats.

Change home air filters regularly. Cats are sensitive to airborne pollutants, including mold spores. Keeping home air purified reduces respiratory stress. Provide a PBDE-free, organic cat bed to lounge on. Most pet beds are sprayed with **flame retardants** that have been linked to endocrine issues in cats.

Kitties are known to respond well to certain aromas, including fresh air, catnip, lavender, chamomile flowers, valerian root and pheromones.

Experiment with a variety of these scents and see which ones your cat seems to like. If you discover she has a particular favorite, consider safely adding the scent to an area of your home your kitty hangs out in. Putting a small amount of these dried herbs out to naturally diffuse their scent into a room is a safe choice for cats.

Catnip can be purchased in a variety of forms — there are catnip toys, mists, flakes, and pellets you can sprinkle around your home, and other catnip kitty accessories. Look for organic options.

- **Reducing diet-related stress** — As discussed earlier, feeding a diet specifically designed for your carnivorous cat is the best way to prevent nutritionally-related stress. Older kitties often need even higher levels of protein than youngsters to prevent a decline in lean body mass as they age.

Keeping up with your cat's dental health is also very important in preventing diet-related stress, as is hairball control. Consult your integrative veterinarian about beneficial dietary supplements, like digestive enzymes. Insuring your cat gets some exercise will help with GI motility, as will regular massages.

- **Reducing somatic stress** — Speaking of kitty massage, it's also a good way to reduce all kinds of stress-related symptoms like anxiety, pain and depression.

Petting, cuddling and brushing your cat, as long as he's willing, will not only reduce his stress level but will strengthen the bond you share with your pet. Acupuncture and chiropractic can also relieve stress and support healthy immune function.

Cats living in stressful situations develop chronic illnesses and behavior problems that can make living with them a challenge. That's why for the love of your feline companion, it's important to set her up for success in an environment that is enriched and as stress-free as possible.

Sources and References

[Clinician's Brief March 2016](#)

¹ [Journal of Applied Animal Welfare Science, 2015;18\(4\):355-62](#)
