



Maddie's Institute

A program of Maddie's Fund®

Stress Reduction: Happy and Healthy Shelter Cats on a Fast Track to Adoption

Webcast Transcript

May 2016

Stress can trigger physical, emotional and behavioral problems for cats in animal shelters. What can be done to help overcome stress and its negative outcomes? A sense of control over conditions is one of the most critical needs for mental health and well-being in animals. Cats need variety and choice, and individuals possess different preferences for environmental conditions, levels of activity and social interactions with other animals and humans. That's why developing behavioral care plans to optimize feline wellness is an essential task for shelter veterinarians and staff.

Viewers of this webcast will learn how to design and implement science-based strategies to provide appropriate enrichment for shelter cats in order to optimize their health and wellness, including:

- Basic needs and requirements for feline housing and enrichment in shelters
- Providing humane handling and creature comforts
- How to monitor cats for negative and positive emotional states
- Interactions with humans
- Interactions with other cats
- The importance of daily routine and sensory enrichment
- Games to stimulate physical exercise and exploration
- And more!

Disclaimer: This transcript has been automatically generated and may not be 100% accurate. This text may not be in its final form and may be updated or revised in the future. Please be aware that the authoritative record of Maddie's Institute® programming is the audio.

[Beginning of Audio]

Jessie Collins: Good evening, everyone. Thank you for being here tonight for our webcast, *Stress Reduction - Happy and Healthy Shelter Cats on a Fast Track to Adoption*. I am Jessie Collins, Education Specialist with Maddie's Fund. Our speaker tonight is Dr. Brenda Griffin with the Department of Small Animal Clinical Services at the University of Florida, College of Veterinary Medicine. Dr. Griffin's professional interests surround shelter animal behavior and welfare, population health and wellness, feline medicine and strategies to prevent animals from entering shelters, including behavior wellness. She has prepared a motivating presentation tonight, so hold to your seats.

Before we start, let's talk about a few housekeeping items. Please take a look at the left side of your screen where you'll see a Q&A window. That's where you can ask questions during the presentation. However, Dr. Griffin has so much information for you tonight we may not get to many of your questions, in which case, she has graciously agreed to answer questions in a document that will be posted in our website in the near future.

We do have a certificate of attendance for tonight's webcast which you can access in a resource widget at the bottom of the page. If you need help with your connection during the presentation, you can click the Help widget at the bottom of your screen. This presentation will be available on demand within 24 hours should you wish to view it again. This will be a fast-paced presentation. If you have Internet connection issues you can always sign off and attend the on-demand webcast which will be available in a few days. Dr. Griffin, thank you for being here tonight.

Dr. Brenda Griffin: Well, thank you so much for having me. I'm really, really excited and I do have a lot of information to share, and I thank the audience for attending and it is my fondest hope that you will take away some little things that will go a long way towards helping the cats in your care. And again, I want to thank the entire Maddie's Fund team for having me.

So we're going to start off with what we're going to cover tonight and really what this is all going to be about is enrichment. And enrichment is all about reducing stress and that's the major focus of what we're going to cover. But in doing that, we are also going to hit on some key definitions and concepts that are associated with help, specifically behavioral health or emotional health in stress and enrichment and review some basic needs for housing in cats in your shelter and how we can best monitor them. And we're going to also, of course, delve into the types of enrichment and the importance of a predictable daily routine for cats.

So as we start off on this, I really want to stress that the overarching goal, I think, that we all have in sheltering is that for the cats, for all of the animals for that matter, in our care to be as healthy and happy as possible. Because truly good health or well-being or wellness depends on meeting many needs that the animals have, needs for their physical health. We need to have a healthy environment, in other words, one that's not too crowded, that's comfortable, temperature, good air quality, it's sanitary, those sort of things. And then we need to also administer to the behavioral health of the animals in our care.

And so as we think about that, I want you to realize that when we say enrichment for shelter cats, we're really talking about preventive behavioral healthcare. In the same way, again, that we attend to the environment, that we tend to physical health and do things like vaccinate and deworm, we also really want to thoughtfully, proactively think about ways that we can protect them behaviorally and emotionally because that is crucial for health, okay.

And so that concept of behavioral health, what exactly that means is really, really important to understand, and I think the most important concepts surrounding behavioral health is one of control. So I ask you guys to think about, in your own lives, those times in your life where you have been absolutely the most stressed, where things are just off of the rails, and you know, you can just feel your hands coming up to grab the sides of your head and you think, oh my God, everything just feels totally out of control, I can't take it anymore and when you realize that, that a sense of control is really the most important thing in terms of our emotional health, and the same is true for animals.

When things feel completely out of control we feel like we can't take it, we give up and that is

the maximum of stress. So any time that we can make things feel like they're in better control, feel more positive, feel more predictable, feel like there's some options, we are going to cater to behavioral health. So that is a really, really fundamental concept to take away tonight.

Another thing to really think about is the individual because individuals have a wide variety of psychological needs and those things are determined by such things as species, certainly. You know, cats are very different from dogs, so the species defines that to some degree, but beyond that, the individuals across that species all have different genetic makeup, different personalities, different levels of socialization, different prior experiences that are going to factor into what they need emotionally, you know, how much social contact they're going to want, how much a particular thing means to them, what behavioral options or choices are going to be more important for them. So we have to think of our enrichment program or our stress reduction program in the context of applying to the population, but remember always that the population is composed of individuals and we have to take them each as an individual into consideration.

And goodness knows, a shelter isn't a normal or natural place to house animals, right. It's like we're keeping them in captivity. It's a totally nonnative environment for them, and they are going to be stressed at intake. Even when we have the absolute best fear factor busting protocols and we are really mitigating stress and providing enrichment to the nth degree from the get-go. When you come into a novel place and you're exposed to lots of new things and you're confined, even if you have a really nice environment, it's going to be a little stressful and animals are going to be stressed, but we're hoping that in time they're going to be able to cope. But if you think about it, even just engaging in the normal kinds of behaviors that dogs and cats are used to doing, they're going to be difficult in a shelter setting.

When animals experience stress it certainly impacts them behaviorally. We see it in the things that they do and in the things that they don't do. It affects their immunity. We often recognize that cats that are prone to having severe stress responses are also very, very prone to having upper respiratory infections, an incredible link between immunity and the development of infectious disease in cats.

And in some cases, stress can result in fear imprinting which will result in what I think of as a permanent emotional scar. We all know a person or maybe even an animal that went through a very stressful event and was never quite the same after that and that really does happen. And so all the more important reason to be very, very proactive and to think about how we can mitigate things so we don't get those emotional scars.

Now, I have to say that one reason this presentation is so power packed is because, for me, I can't really separate housing and enrichment specifically or particularly in cats because I just can't really even begin to address enrichment without discussing housing, because housing design and operation are such, such a huge part of it. So I always say housing design and operation can literally make or break the health of a population, and particularly the behavioral health.

So we are going to think about the physical and structural environment as well as all of the

other things that surround enrichment. And you don't have to have the fanciest, prettiest, most expensive shelter but we do want to do the best with what we have and also be able to translate that into something that, again, a little thing that's going to make a really big difference for the animals in our care, and when we do that and when we succeed in that, it helps not only the cats but us as well. I think when we are in a situation where we're surrounded by animals that are stressed and things are compromised, they're compromised and it compromises us too.

There's a phenomenon called emotional contagion that says that negative emotions and positive emotional states, whichever it may be, they can spread through groups of animals and we know that's true. When one person is in a really bad mood the impact can spread through a group. When one animal is very stressed that can spread through a group. When some animals are very relaxed, that can spread in a positive way through your group. And it also crosses species, so it definitely affects us as well. To think about this is important holistically for the animals and for the people, all of the people that are interacting with the animals in the shelter.

Now, as we think about housing, fundamentally, the most important thing for housing is that we have to have a space that is going to provide a comfortable place to rest, okay, a comfortable bed. Imagine you're going into a new place, you're assigned a small room that's going to be yours and there's not even a bed, there's not even a place to rest. I mean that – so again, a minimum standard there is to have a comfortable resting place. And also, it's got to be a place that's going to ensure that there's freedom from fear and distress, okay. There are going to be some stressful things but we need the opportunity to be able to shield ourselves from those things until we start to feel a little better and then we can come out.

We've also got to be able to engage in some normal behaviors, the sort of things that we do as a species. It's really important that there are going to be outlets for those things that we feel like we need to do. And of course, that housing also has to provide for our physical needs as well as our emotional needs.

So I think that the most important thing we can do when we monitor the results of our wellness program, of how we'll we're doing with our stress reduction and enrichment, is to look for are the animals displaying the behaviors that we would expect them to display. Is the cat doing things that a cat would do? And that is the very best measure of success, and that's how I'm going to suggest that we think about this and frame this and monitor this and apply this and implement this as we think about enrichment.

Because cats do sleep a lot, but certainly they do more than just sleep, right. So there are studies that tell us that cats that are in very impoverished environments will sleep 90 percent of the time or even more, and that's a sad thing that they're either giving the false appearance of sleep, feigning sleep because they can't really get restful sleep and they're just too upset to relax and really sleep or they're just laying there sleeping or giving the false appearance of sleep because they're bored out of their minds and they're withdrawn, activity withdrawal, social withdrawal and they're just laying there.

So I want you to think in your mind's eye about the sort of things your own cats do in the home, okay. Now, napping is very popular among cats. We do see cats seeking out different

places to nap, without a doubt. Even healthy cats in a great environment will sleep, you know, probably two-thirds of the time or so. So a nap is certainly a healthy thing when it's restful, and we often like to change location and nap in different places, like in a warm window with our belly exposed. This is the ultimate sign of a relaxed cat with the belly exposed.

And sometimes we like to change to a little cooler location, like the sink or we might decide that we're going to sleep with a friend because contrary to popular belief, cats are social creatures and some are very bonded to their housemates and one huge sign of bonding is seeing them sleep together. And think about, again, if you have multiple cats, we know the ones that are bonded are the ones that spend a lot of time in close proximity and they do really enjoy sleeping together.

Eventually, though naptime is over, right. We wake up and what do we do when we wake up, maybe we stretch, and we stretch a little bit more, and then we decide that perhaps we'll groom. Grooming is such a very important maintenance behavior in cats and they like to get in all different types of positions to groom that can really show their incredible flexibility. So grooming is something that normal, healthy cats do as a very important species typical behavior.

After a little stretching and grooming session, perhaps we'll get up and explore. Cats do need some aerobic exercise and they need the ability to be able to walk about and explore their environment. Climbing up to a perch is very important for them. A lot of cats do like to jump vertically, and this cat's going to explore the counter. Maybe he's going to go after that loaf of bread, I don't know. Cats have different preferences for the things that interest them. This cat is drinking out of the sink.

And maybe there is a new and novel item that will stimulate the predator within and I will grab it, I'll pounce on it, I'll stalk it, I'll attack it. I'll do all the things that make me uniquely cat, all of those things. And play is such an important behavior to display. You know, when we play, we feel good while we're doing it and we feel good after we do it because of the ongoing effect that we get from those endorphins, and there's no better indicator of welfare than seeing an animal play. We know things are going well when they feel like doing that.

So a lot of different normal behaviors that we think about for cats. Scratching is another one, just like dogs chew, cats scratch. It is a very important form of communication. It's olfactory signals, it's scent marking that they're doing, it's scent familiarization. They're getting that familiar scent indoctrinated there that makes them feel better as well. It also conditions the claws. It's a form of stretching. Even cats that have been declawed will scratch because, again, it's just part of what we do as cats, it's part of what we do.

The normal feeding behavior of cats is to eat a variety of small meals a day, if left to their own devices that's what most cats would choose to do, and eating is certainly a very important behavior to see. Some of us like to play with our food, apparently, as we see here. And elimination behavior, cats are very fastidious about their litterboxes. You know, can you imagine, again, being assigned to a small room at a brand new place that you're going and you don't have a bed where you can lay down and your toilet is the size of a tin can and it's kind of

dirty. I mean it would just be horrifying. And cats, their litterbox is very important to them. It needs to be commiserate with the size of the cat and they need to be able to dig and cover. This behavior begins as soon as a kitten can walk around and leave the nest, they will start instinctively to dig and cover and be very fastidious about their bathroom habits.

Cats are a social species, as I mentioned. Depending on the individual, they will seek social contact from people or from kind specifics, in other words, other cats in different ways that suit their own individual needs. Some are, of course, consummate lap cats and others prefer a little more standoff social contact, like this cat who is just very content to be near you and that's the social contact that he prefers.

So I go through these pictures, again, to get you thinking about the sort of behaviors that cats need outlets for doing and that we should see them do and that really are our measuring stick for knowing how we're doing with the care that we're delivering them. We need to be able to promote all of these normal species-typical behaviors and when we do that, we know that the cats aren't stressed. And we also need to recognize that it's not an optional task, it is a core foundation of providing care for these animals, as important as the health of the cat physically, of a sanitary and healthy environment, their behavioral health. In fact, I would argue it's even perhaps more important. I know for me, I would deal better with having a cold than having a severe episode of anxiety or depression, that would just be so much more debilitating and I don't believe it's all that much different for animals.

So this leads us to our first poll question, Jessie.

Jessie Collins: All right. Before we jump into our first poll question, I just wanted to remind you that you can submit questions through the presentation through your Q&A window, and now onto the poll question. Do cats have emotions, yes, no, sort of, not sure? Please answer the question directly on your screen and not on the Q&A box. And it looks like we have our results.

Dr. Brenda Griffin: [Laughing.] This was a great easy one. I am so glad, that makes me so happy to see that answer. Thanks, Jessie. Yes, you guys are right, and when we promote normal species-typical behaviors, guess what, we promote positive emotions, right. Behavior is a reflection of an animal's emotional state and that's what we want is them to experience positive emotions. And it's not exactly the same as the emotions that we experience as people because, yeah, our minds do work a little bit differently. We do have complex reasoning and all sorts of things. We come up with very complex things and jealousies and all sorts of things. But these core basic emotions, where animals feel interest or desire, care, nurturance, playfulness, joy, all of these things are intrinsic in them. Neurobiology, neuroscience tells us that we experience – that they experience this, and we see that in their behavior.

And you know what, ultimately it's really good to feel good and that really is what it's all about. It's about creating an environment where cats can be cats, and we know that things are good, again, when they display all those species-typical behaviors, okay. Unfortunately, cats can also experience negative emotional states, fear, anxiety, rage, depression, and so we need to be cognizant of how we can assess that as well.

So as we move on with thinking about our plans for creating a stress reduction or enrichment program, we need to be aware that we're catering to not only the physical but also the emotional or behavioral needs, those terms are synonymous, the emotional needs of the cats. And the physical needs, I think we do a pretty good job with basic things like food, water and shelter and hopefully, again, a sanitary environment, a comfortable temperature, those sorts of things, the medical care. But be aware of those behavioral or emotional needs. Cats do require opportunities for social interactions, again, that are going to be defined somewhat by the individual. These things are all on a spectrum but they do need social interaction.

They also need the ability to create different functional areas in their environment, a place to rest, a place to eat, an appropriate place to eliminate, okay. They need the ability to hide in a secure place. Hiding is what we do when we need to shield ourselves from things that we find upsetting or disturbing until we feel better and can come out, and that is a fundamental need for cats, especially for cats. We'll talk a little bit more about that in a moment.

We need to be able to sleep and have restful sleep without being disturbed. We need the ability to change locations in our environment. Cats instinctively feel better when they can perch at a high point, so utilizing vertical space is very important for them. And all of those things that we saw in those pictures, the ability to scratch, to play at will, to find things that will stimulate our interest mentally.

When cats come into the shelter, we also have to consider that there's a wide spectrum of cats that we see. Everything from the truly unowned, unsocialized feral cat that's never been handled, will absolutely flee if approached by a human, incredibly stressed by the presence of people, to the pampered, docile housecat to the friendly neighborhood stray cat that's really seen a lot of the world. And we'll see cats of all different spectrums come in and it can be very difficult to tell who is who because intake is stressful, cats will become very reactive at intake. And so we have a lot of stuff going on at intake. We want to provide all of that preventive healthcare from a physical standpoint and a behavioral standpoint. Because sure no one gets sick, encourage the species-typical behaviors and really find out that cat's true colors.

In the long-term, we have additional considerations, because when stays turn into a longer period of time, cats have acclimated hopefully to the shelter environment. They then experience a new level of well, okay, there's kind of a tedium here in confinement, I need more opportunities for mental and physical stimulation, so –. And so I think that actually is a great segue here in a moment to another question that we'll ask, but for now, let's think about the impact of all of this on housing design, okay.

I think that a really essential part of it, again, no matter what the physical plan of your facility is, is to be able to think about how we can maximize what we have, and one thing that is absolutely crucial is to have a staff that are able to really read the needs of the cats. That cat savvy staff is essential. So beyond the design, beyond the preventive healthcare, we really need to understand what the cats are telling us. And sometimes cats aren't so subtle and we really get a clue that there is stress, and other times, communication can be very, very subtle, especially among cats.

I think one thing that really helps us to take a step back and understand cats and where they're coming from is to think about who they are, who they are biologically and who they are behaviorally, because they're really different from other species in so many ways and one of those ways is just in the way that they were domesticated. The domestic cat actually is a descendent of an African wildcat and the two species remain really kind of closely related. And cat domestication was accomplished relatively recently and much more passively compared to other species, okay.

So as a result, few of their structural and behavioral characteristics have changed compared to their wild predecessors in so many ways. Cats are – they're true carnivores, they're really nearly the perfectly designed predator, biologically they're equipped to sense and avoid danger, and they're physiologically hardwired for escape or defense. That's who they are. They possess very, very heightened fight or flight responses. And all of those astonishing sensory capabilities that they have, they can see at a low level of light, they're very stimulated by things that move rapidly, they have an incredible homing ability, they have special sensitive guard hairs, their keen sense of smell. All of those things makes them very, very sensitive to stimuli in the environment.

And again, their fight or flight response is just incredibly hardwired in them. They will try to flee, try to escape or they'll defend anything that makes them apprehensive. They're going to have a burst of epinephrine or a burst of adrenaline and that will trigger this fight or flight response that we see.

So we talked about cats coming into the shelter possessing all different types of lifestyles, again, from that docile, pampered housecat all the way to the completely unsocialized cat that would be incredibly uncomfortable around any person, and everything in between there. And I want you to keep in mind that regardless of their lifestyle, they all have that common physiology.

I want to ask you to remember the last time you had a big burst of adrenaline or epinephrine. You were driving down the road, for instance, and you glanced over at your GPS or your cell phone, which none of us should do, and you look up and someone in front of you has come to an abrupt stop and you have to hit your brakes really quick and think about how that adrenaline courses into your system and your heart pounds and you feel your cheeks flush and your anal sacs go –. Just want to be sure you were listening there. And – but I cannot imagine if I had a hair trigger response for that epinephrine. It's such a profound reaction when that happens to me, physiologically, and see, that's how cats are wired.

Even little things trigger epinephrine, and so they have a lot of epinephrine coursing through their system any time they're in an unfamiliar situation. That's why we see some cats come into the shelter in this very, very reactive state and we think they're feral but really it's a reactive tame cat, and they can stay that way for quite a while. Because of all the stressors that are present in a shelter environment, we'll get that triggering that epinephrine response, and let's face it, anything unfamiliar or unpredictable, depending on the cat, could represent a stressor. So many things in the shelter environment could trigger that epinephrine response.

So a huge, huge part of enrichment is thinking about how we can mitigate all of those fear factors for those cats. One of the things that will help you be better at mitigating those fear factors is to think about the factors that affect their response, okay. So first of all, they're cats, so we know they're hardwired for epinephrine release, for that – any sort of apprehension can trigger that response in them.

It is affected to a degree by their personality. I always think it's interesting, behaviorists have defined basically two personality types in cats, the first is the bold, friendly cat, and the second is the shy, more reserved cat. So – but it's true, we do see those, and we know that the bold cats, the bold, friendly cats do tend to be a bit more emotionally resilient than the shy cats. So that's certainly one thing that affects stress response but a really important thing to bear in mind when we're making choices for individual cats in the shelter.

The other thing is a cat's perception, which is based on their level of socialization as well as their prior experience. So again, the completely unsocialized cat, that cat's going to have much more profound stress response to certain things, particularly people, than one that is very, very sociable. And it also goes to their prior experience. For example, that pampered housecat that's never seen anything but the satin pillow might be incredibly stressed when they come into the shelter because they've never seen anything else. Versus that friendly tomcat that's a loosely owned neighborhood stray that wanders around the world and confidently sees all these different things and is social to people and so forth, he comes into the shelter, he may have a little different perception of the whole experience, right. So those things affect stress response.

The duration of the stress, the severity of the stress, those are pretty obvious factors, but the last two on this list are especially important to understand. The first one is predictability. When things are predictable we can handle it better. So an example that I always like to give students is to think about exam week. We know that's going to be a stressful week, okay, but how would that change if I told you, you know what, it's exam week but I'm not going to give you a schedule, instead I'm going to give you a pager and I'm going to page you at any time of the day or night. It might be 3:00 in the morning, and you're going to have 30 minutes to get to the classroom here. And when you get here, I'll tell you which exam I'm going to give you right then. I mean, like, completely different level of stress, totally different level of stress. I mean just explosive.

So whether it's a positive thing or a negative thing, when we know it's going to happen, it helps us to deal with it, it gives us things to look forward to, and if we know something unpleasant is going to happen, like maybe it's cleaning time and oh, that stresses me out, well, I know what time it's going to happen. I'm going to get entrained to that routine very quickly. I'm going to be able to go, oh geez, it's 6:30, that means cleaning time is coming, I'm feeling a little tense, I think I'll hide for a little while. I'm going to shield myself from this. And then when it's over, I know it's over because it never happens any other time except for that time, and so now I am going to be able to have a period of cool and calm and relax. Profoundly impacts their stress response, great. When it's an unpredictable schedule and they never know what's going to happen, super stressful.

And that whole perception of being able to escape the stress, to shield yourself from it, that

changes the stress response dramatically. So here is an example, kind of a corny one, but now you're being chased by a grizzly bear and you're out in the middle of the woods. In fact, there is just nowhere to go or – there's just nowhere to go. I mean you're – I mean, like, oh my God, how stressful is that? Versus being chased by a grizzly bear but your car is just ten yards away and you've got the keys in your hand and, you know, you're quite ahead of the bear and you feel like you can escape. So both are stressful situations but one is just a little bit more.

And so when we feel like escape is possible, we are able to keep it together and cope, and if we can limit the duration of the stress, limit the severity of it, put everything on a predictable schedule we're going to be so much better in terms of being successful at reducing fear factors and helping the cats to cope.

We also have to be able to read cats, as I said, and it's beyond the scope, of course, of this presentation, to go into tremendous amount of detail but I would be remiss not to at least briefly talk to you about the kind of signs of stress that we're seeing in cats. They let us know how they're feeling. They let us know actively through their body language and their auditory signaling, as well as passively, and by passive, I mean by exhibiting no behavior. Cats are masters at passive communication, where they just do nothing.

Now, this particular cat, boy, I can't tell you how many times I've heard people say, oh, that's a nasty cat, that's a mean cat, no, this is a cat on epinephrine. This is an adrenaline-charged cat. This is a cat whose stress response has been triggered, has a lot of epinephrine in their system. See the fear in these round dilated pupils. Those ears are pinned back. This cat is tense and small. I can see in my mind's eye that that tail might even twitch. And if this cat could escape, he would. That would be his absolute first choice, to get away, to escape, to mitigate that stress by doing that, but if backed into a corner, this cat absolutely will defensively become aggressive, that paw will come up. But this is an incredibly stressed cat, an incredibly stressed cat.

Now, I want you to very carefully note that I've thrown a mountain lion in on this slide just to make the point again about how unbelievably closely related these guys are, behaviorally as well as physically, to other felid species. But all of these cats are saying get away from me. This is nature's way of saying don't touch, right, I'm hissing, I'm telling you I need you to go away, I need more space. That's all they're doing. And these cats are all in a state of fear.

And we can see that state of fear in – one of the ways is in their ears. As opposed to these relaxed cats, who have their ears in a more neutral, straight up position, not too far forward but with soft bodies. We see the bellies exposed in one of these. A lot of them have squinty eyes, blinking, certainly a sign of relaxation in many cats. These are the sort of postures that we're looking for when we know that cats are relaxed and comfortable, again, versus the cat that's fearful, where the pupils are round and dilated and the ears are flattened and going out to the side and the body is tense. And this cat certainly is in escape mode.

And again, if they're cornered and can't escape, they certainly will bring that paw up in defensive aggression. So that's just what cats are, biologically and behaviorally. Again, it doesn't matter whether it's the tamest, most docile cat, when they're put in a stressful situation

they will display exactly the same behaviors and you can't distinguish them from a cat that is truly feral based on those behaviors alone. Remember also that no behavior in a cat can be a sign of stress. So things like refusing to eat, constant hiding, feigning sleep, being very hypervigilant, not moving around, not grooming, all of those things are associated with stress in cats.

And there's no doubt about it, shelters are stressful. I always try to think about how my own pets would deal with going into the shelter, and I have lots of pets, as probably many of you do, and it's very individual. I think they would all be quite a bit different from the other. Regardless, they're all going to experience some stress, especially initially, but hopefully, if we get it right, they're going to start to cope. And how do we know they're coping? Well, because we're seeing them develop and display normal species-typical behaviors, okay.

And then we have another layer coming. As the stay becomes longer, we start to see manifestations that can occur from chronic stress, okay. So always keep in mind what they are perceiving, and we can't truly know everything. Because of their keen senses, man, they see and hear and experience things that we can never know, but being cognizant of that can help us to recognize where we can – oh, the smell of alcohol, that's probably scary for the cat, there is a fear factor that I can mitigate. All of those little things, cumulatively, can make a huge, huge difference.

Also recognize how important first impressions are. Again, we all know people that have been through a catastrophic event and they're never the same, and that first impression can be a lasting one. So when animals come in and experience incredible emotional stress at the outset, it can make it very, very difficult for them to acclimate. So always have an eye on that. Temple Grandin talks a lot about that in a number of the books that she's written, but she describes it so well and so that's an author that I would recommend.

So let's look at a few pictures of cats entering shelters. This is so common that they're put in wire transport carriers and they're sitting on the floor and look at these stiff little kittens with their ears alert and their eyes wide and easy to see why, because there may be a dog tethered near them which certainly is a huge, huge stressor for them. Cats coming in because they may be trapped and brought in in exposed wire carriers, very, very stressful whether you're feral or not. Often you're placed in a small holding cage. Can we meet behavioral needs here, do we have a place to seek refuge, do we have a comfortable place to lie down, can we meet our basic emotional needs in this setting?

Here is a little kitten that's been placed in a larger cage, glued to the back, and where is the food bowl, all the way in the front. How likely is this little guy to come forward with his crouched body, tucked tail, dilated pupils, and how important is it for a kitten of this age to eat? So these are the sort of things that we may be able to mitigate very, very easily.

And what about these two cats, and there are two cats in that picture, again, with tension, with ears forward. At first we think, oh, they're curled up next to each other, but indeed they're not. The tail is clamped tightly around the rump here, the eyes are open, again, the false appearance of sleep because they're in a state of hypervigilance. They're scared, they're looking around,

they're unable to truly rest.

We'll see some cats come in and they'll disrupt the cage contents, maybe because they're frustrated, sometimes because they're scared and they're trying to create a hiding place for themselves. And so those are just some scenes and some pictures to get you thinking about the sorts of behaviors that we want to see, the sorts of behaviors that we might see in the short-term, and then also to know in the long-term that behavioral or emotional health can be further compromised. In cats that are held long-term, they may become frustrated, they may develop chronic fear and anxiety. Again, they can withdraw. Some of them will just develop learned helplessness or shut down. Sometimes we start to see escape behavior, they just won't stay in the cage, they're just determined to get out of the cage that's associated with frustration, and in some cases we'll see cats that were formerly friendly and attractable begin to display aggressive behaviors.

And again, all of those are reasons that enrichment needs to be a part of the care that we deliver every day. And when I say enrichment, what I really mean is stress reduction and that's all about providing cats with variety, choice and some sense of control. That sense of control is so important. So eliminate the fear factors and mitigate fear as much as possible. Provide or optimize the housing that we have, make longer-term plans to make it even better. Recognize that social companionship is a fundamental need as well as physical and mental stimulation. Recognize that play is the best thing in the world because laughter is the best medicine, right. When we play we feel good and after we play we still feel good.

Recognize, too, that we want enrichment to stimulate all of the senses. If you were in a strange place it would help to have something nice to look at, nice to listen to, nice to touch, nice to smell. It would help a lot. And food, of course, ultimately is a form of enrichment, okay.

Training programs can be not only for dogs but also for cats, positive reinforcement base and can be a really powerful form of enrichment as well as social bonding, and it's important to recognize that they need not be extremely regimented or regular, even intermittent training can improve welfare and enhance learning in cats. Obviously, owing to the conversation that we've been having here, we want to be sure that we are providing for species-typical behaviors, scratching, elimination, basically provision for behavioral options that allow an increased sense of control. Having positive, predictable routines where we know what to expect, and so forth is going to go a really long way towards improving the welfare of these animals.

So now, we're going to think a little bit more about housing design and operation, and we've noticed some of the things we really need to do in the immediate short-term and we've kind of given a glimpse into what things look like for the long-term needing additional levels of enrichment. And that leads me to this very next poll question.

Jessie Collins: Thank you, Brenda. Again, I just wanted to remind everybody that you can continue to submit questions in the Q&A box and that you can also download and print the certificate of attendance in the Resource widget at the bottom of your screen. So now on to the poll question. What is the cutoff between short-term and long-term? What do you consider long-term shelter stay for a cat? More than two weeks, more than one month, more than two months, more than

three months, more than six months, more than a year? Please answer on your screen and not in the Q&A box. And here are our results.

Dr. Brenda Griffin: Great. Well, we got a little diversity in this answer. You know, I will say one way to think about this question is to think about your own cat in a cage, and sometimes that helps make it a little clearer when we think about a longer-term stay. The AFC Guidelines for Standards of Care in Animal Shelters, in that document we defined long-term as a shelter stay of more than two weeks, of more than two weeks as being long-term.

And I, quite honestly, my personal opinion is that I don't like the idea of keeping a cat in a cage any longer than that. I mean more than a couple of weeks, keeping a cat tightly confined in a cage starts to become really, really problematic. And certainly it's going to be associated with frustration, certainly going to be associated with difficulty in providing them adequate outlets to display normal behaviors. It's really going to thwart that for them.

And so I want to go through just a few more pictures with you guys, and as you think about what does happen when we put a cat in a cage, what are the behaviors that we see. I think for 99.9 percent of cats the first thing they do is they go to the back corner of the cage, right, and they exhibit postures associated with fear. I mean just trying to get away, just trying to disappear into the back of this cage. And I'm very vigilant, my ears are forward, my eyes – you know, I'm not relaxed at all, my eyes are wide.

Some of them, again, will disrupt the cage contents because they're frustrated from the confinement or because they're trying to create a hiding place, right. And some of them will ball up and sort of feign sleep, but again, if you look closely you'll see those eyes are wide open, those ears are forward and that tail is clamped down tight, and in this case it's easy to see why, very stressful cohousing different species like that. And so we call that feigning sleep and it can be associated with kind of an active form of stress, like a scared rabbit in the grass, I often say. We also see feigned sleep in cats that are more chronic state of stress, where they may not look so tense but where they're just still giving the false appearance of sleep.

But the take-home message here is that when cats come into a novel environment and are thrown in a cage, they need to hide. Again, that's a normal feline behavior. They need some control over that negative stimulus. So it's really important to always provide cover for cats.

After a period of, and it depends on the individual cat, their personality, their prior experience or level of socialization, but after a period of an hour, two hours, three days, four days, a week, maybe never, but the social cats will start to come out and they'll be like, okay, I see there is no threat and now, hello, can somebody help me out here. They're seeking attention, maybe they want to be let out of the cage. They're certainly seeking something, and they're looking at us, they're making contact, they're like, um, hello, are you there, can somebody come over here.

Over time, we'll see some of those cats, they'll cease to display those behaviors and they'll be laying around in the litterbox a lot. I mean look at this big guy, how frustrating must that be? Look at the size of his toilet. I mean a really frustrating situation. This cat was also displaying signs of aggression that he had never displayed before. They'd reach in to get his little shoebox,

litterbox and he would reach up and try to nail them. They're like, what's wrong with him, and well, his needs aren't being met. He's really frustrated. He's really, really depressed and quite frankly he is in an anger like state. I mean this guy, his face says it all, you know. This is again another illustration of a frustrated cat, and certainly I'd see a number of reasons for him to be there. What we're hoping for is that if our behavioral care is good that we're going to see more cats in relaxed postures, displaying our bellies and squinting at us and being happy, so to speak.

So here's a little video for you guys to watch. I think one reason that we justify keeping cats in cages or have historically kept cats in cages was in the name of infectious disease control. Course, I'm not sure that we're preventing any sort of cross-contamination by keeping the cats in cages. And so then after that we went to the Plexiglass front, right, of the cages. But we've learned over time that this type of confinement really induces a lot of stress, and stress mitigation really is the key to keeping cats healthy. That cats that are confined in cages may even be more likely to develop respiratory disease because their emotional needs aren't being met.

Now, it's interesting looking at the cats in that video, because a lot of people would be like, oh, those cats are doing great, and I think what we can say is that those cats certainly are not perceiving any threats at this point and are certainly motivated to engage people for social contact, or again, maybe they want to get out but we do know that that cage confinement is severely limiting their behavioral options. We don't have enough information about other behavioral care they may be receiving to know, so I agree that they look fairly comfortable but are their needs being met and what is their welfare, it's hard to answer that from a snapshot in time.

And I think that's really important to think about as we monitor cats, what are their behaviors throughout the day and what are we noticing that they're spending the majority of their time doing. And also to ask the question, which cats are the most stressed, and we've sort of already answered that question, but we know that's going to be those cats that are poorly socialized and that don't have much social referencing. In other words, they don't have a lot of other prior experiences and that can make the shelter an even more frightening experience for them. But remember, cats are individual, any cat could be profoundly stressed, but we certainly want to bolster the emotional wellness programs for those cats that we could expect out of the gate to be the most stressed. And perhaps the most important thing that we can do is always to be sure that cats have a place to hide, from the moment they come into the shelter, and we know scientifically that it does reduce their stress response.

So all of those things related to mitigating stress, reducing fear factors, thinking about it from the cat's perspective, need to begin at intake to prevent that fear imprinting, to promote acclimation. For all cats, regardless of their behavior, initially we have got to have that enrichment plan in place.

I think it can be really, really helpful for the cats that are the real scaredy cats or the true feral cats to be segregated and preferentially put in the quietest ward, the quietest location, if we don't have a dedicated ward, the quietest location of the car ward to again, try to mitigate even more for those that are experiencing the most difficulty.

Certainly, it's important to also segregate by species. This is an adorable picture but it's really important to remember that cats are a prey predatory species and whether they're the predator or the prey, depends on the other species in question. So they need to always be kept separate. And cats that are socialized to dogs, when they're in an unfamiliar situation and they're unfamiliar dogs, they're going to be very stressed by them, no matter how much they love being around other dogs.

So we're going to watch another little quick video segment. Something that, unfortunately, is still way too common in shelters and veterinary hospitals and many settings. It doesn't matter that the cats can't see the dogs, they're in auditory range of those dogs, but that is just an unbelievably profound stressor. So taking steps to eliminate those sort of things in our shelters really is one of the most impactful things that we can do. So I want you to come away from this presentation knowing how even little small things can make a big, big, big difference. Okay.

And so now we're going to look at some of those small things that can make such a huge difference. Look at this. This is a covered trap that's set on a counter instead of being on the floor. So it's elevated and the perception is of the cat now that they are hopefully protected from that stressor. You know, they have the perception that escape is possible. How about this, a box for those kittens, and look at the placement of the food, where it may actually be accessible to them. Little things, again, making a profound difference.

One of my favorite tools is a cat den. This is a really nice tool. If you're not familiar with it, they're available from a number of different supplies, ACES is one. It's just a box and when you get that cat in that trap, it comes in very, very reactive, you can use a hands-off approach. These have guillotine doors, you can abut them, transfer that cat in a very low stress manner, put that guillotine door back in place, and then we have safely and in a low stress fashion taken that cat and transferred him to that box. That box goes right into the enclosure, then at a distance we're able to close and open that portal door, okay. So we can actually clean and tidy that enclosure with that cat in there and then reopen that door.

So this cat, somebody very savvy took this cat in and they took that cat and they set up a big dog crate in a very quiet area, covered it with a sheet, put – transferred the cat into a feral cat den, put him in there, came back in an hour and checked and this is what they found. So that was an epinephrine charged tame cat that truly just needed a place to cool out and recognize that they were in a safe environment so they could feel comfortable to display their true colors.

So that sort of hands-off handling promotes the best chance for acclimation in many of these scaredy cats that come in, epinephrine charged and very, very reactive. So my mantra is always keep it covered, elevate, quiet, keep it positive and predictable, okay. Using those tools will help.

One thing I will mention as well is that a lot of folks use Feliway. You're probably familiar with that, but it's a synthetic cheek pheromone that is supposed to be associated with calming in cats. You know, when they cheek rub and they sit and rub with their cheeks, they're depositing this pheromone, it's important for scent familiarization and acclimation and it's kind

of the happy communal cat scent that makes them feel better.

And so there have been some studies that have indicated that Feliway can be very good for stressed cats, in terms of promoting acclimation. Unfortunately, surveying those studies and really looking at the evidence, it's not the most compelling evidence in the world. There was recently a summary of those studies published in the *Journal of the AVMA* and it showed that we don't have real, real strong evidence to support their use, but certainly if I was going to use something like that, I would use it in my feral cat and scaredy cat wards, but may not be as effective as simple things like hiding boxes, positive, predictable experiences, consistent routines, things like that.

So thinking about cats in shelters, we're going to need a variety of types of housing to meet their behavioral needs as well as their physical needs. This would certainly be an improvement over some of the previous pictures that you've seen. So this would be a condo style, double-sided sort of enclosure. We've got a lot more options here, an ability to move and change location and perch and explore a little bit.

The Association of Shelter Veterinarians recommends a cage size of 11 square feet, which basically would be a footprint of four feet. So – because most cages are a standard depth, like an arm-length depth and so a footprint of four feet would provide the minimum amount of space that we'd like to see a cat kept in in the short-term or for any length of time. Then we're able to put an appropriate sized litterbox in there, commiserate with the size of the cat, a place to hide, a place to perch and so we're doing a better job there.

Certainly, again, the space that you have, you can improve it by using things like hide and perch boxes, which you can purchase or you can make. A nice sturdy printer paper box or a box from the liquor store makes a great place for cats to hide and perch, and they can also scratch on them. Kuranda beds can also be used to improve and make the space in a smaller enclosure more complex, to give the cat more options. And you can also make your own little PVC pipe bed as well.

Perhaps the thing that you'll want to do as a longer-term option but as a high priority is to really think about putting portals between two existing stainless steel cages that are small to, again, take that from a small cage to a double-sided cage. So the holes are cut, a PVC pipe segment is used to adjoin those, create a portal and then you have a much better enclosure of a cat. UC Davis, on their sheltermedicine.com website, has a very nice description of how this can be done. They even have a YouTube video available to show you how to do that. And here are three cages that have been adjoined to create a nice little three-room apartment for these two cats. So a much better environment. So those are just some important points about the initial experience for the cats, in terms of stress reduction. And again, keeping an eye on the importance of being sure cats have predictable environments and can afford the ability to escape.

We still have some cats that have a hard time coming around, though. I know you guys see those. And so how great would it be if we had some way to just say to the cat, hey, everything's okay, we mean no harm, things, you know, are going to be okay here, wouldn't that be great?

So I'm going to show you a little video, this is a video from YouTube of a shelter in Toronto that is using a technique to try and do just that, to teach cats that you're safe. So take a look at this and watch very carefully this cat's body language. *[Video playing.]*

Interesting, right. This is a technique that's called gentling, and Dr. Nadine Gourkow, a researcher, has recently published some really convincing data that it can be used to reduce stress in cats. Now, I really want to stress this is not a technique that's appropriate for feral cats, absolutely not. Feral cats don't want us to handle them, not even in a hands-off approach, absolutely no way. This is for socialized cats who are fearful and reactive, and sometimes it's difficult to tell the difference, but in this case, clearly this cat was coming around very quickly.

So you perform this technique in a hands-off way that makes it safe for the handler and also makes it as unthreatening as possible for the cat. And here they were using a long dowel rod with a brush on the end of it and trying to approach the cat in a calm, friendly manner without using force and pet them in an appropriate way that they might like to be petted, on the head or neck. Count to three or four and see how the cat responds. If their stress is ramping up and their reactivity is ramping up then you must stop. But this cat really was, like the gentleman in the video said, you're trying to decide if you like it, right. We started to see, oh, this feels a little good. Oh no, wait a minute, I don't want you, go away, hiss, hiss, and then oh, wait a minute, that feels pretty good.

And that's the great thing about this technique is, it can help cats adapt more quickly in some cases because they're basically learning, we mean no harm and they begin to accept handling, and when that happens more quickly in a shelter, time is everything. So that can literally be lifesaving. So this is something to think about doing as part of your enrichment program, as part of your stress reduction program. You can get a little telescoping backscratcher at the dollar store or order one off of the Internet and these are great tools to put in your pocket and then you can extend it and use that during your daily rounds as you walk through the shelter to check on some of these cats and help them hopefully learn that we mean no harm.

So a quick recap here. Housing size and enclosures, the larger the better, certainly. You want to have separation and different functional spaces for cats. A place to hide and perch, all of those things are really crucial. That being said, I always say whose idea was it anyway to keep cats in cages. My personal view is that cats shouldn't be kept in cages and I'm hoping that in the future that that won't be a standard practice. I would love to see cats housed in runs. So then people always ask me, well, how many cats are you going to put in those runs? Are you going to put more than one and I say, well, maybe, maybe, it depends. Certainly, I don't want to put too many but let's think about that.

And that really takes me to my next point which is what are the types of enrichment? When we think about the different types of enrichment, social enrichment very important. So it's social contact, whether that be with other cats when appropriate, and that would be through socially enriched group housing, that's the whole purpose of cohousing cats, would be a form of enrichment. If we're inducing stress by cohousing cats than that's not appropriate, but if we can do it to enhance their behavioral care, to provide that social enrichment, that's great. Other types of enrichment include the physical and mental, the games and the training and so forth,

and then again, sensory enrichment to stimulate all of their senses.

So we're going to talk for a few minutes about enriched social group housing for cats. I'm going to have to move through some of this material really, really rapidly. If this is an area of interest to you, I hope you'll let us know that you'd like to have even more information presented on this and maybe we can come back at another time and do that. But it definitely needs to be mentioned because it is an important part of enrichment for cats.

When cats are going to be in the shelter long-term, as I mentioned, it's harder and harder for us to do all the things that we need to do. So if they can be with a friend all the more power to you because you're going to meet a lot of their needs for social companionship, for somebody to play with and stimulate them, a lot of things. When you're in an enclosure with a good friend are going to be good for you. And I just want to remind you, again, that cats aren't an asocial solitary species. When left to their own devices, they do live in groups, they choose to do that. Maternal behavior is a primary social pattern that care for kittens together. The tomcats as well are social and they come and they develop friendly relations with other cats in a group.

So now this leads me to the next poll question. Jessie.

Jessie Collins: Thank you, Dr. Griffin. The next poll question asks how many of you commonly have cats, kittens that enter your shelter in groups? In other words, do you often have more than one cat relinquished at the same time or more than one cat coming in from a common source at the same time? Yes, we commonly see this with young litters of kittens and we often see it with kittens and cats of various ages too. For the most part we only see this with young litters of kittens. No, we rarely have more than one feline enter the shelter from a single source. Again, please answer on your screen. And here are our results.

Dr. Brenda Griffin: Aha. I have to say you guys have really validated what I really believe. This is certainly my experience too, that we see cats of all ages coming in together, of course, particularly young kittens. So I think what we do know is that too many is the leading reason for relinquishment. A lot of cats are relinquished from multi-cat environments. So these are cats that have been around other cats, people have too many, they bring them in. They often bring them in in groups. Many cats entering the shelter have come in as socialized to other cats, and some of them come in with their friends. Some of them have very strong preferences for their friends even if they are socialized to other cats. We know that about cats, they can be very cliquish, can't they.

And some cats certainly don't tolerate other cats either because they haven't been socialized to them, they have become negatively sensitized to them, they're in a stressful situation and they are introduced in such a way that things don't go well. So all things to think about. Again, I'm going to move through some of this information really rapidly. If you still have questions, I'm happy to get them in a Q&A or maybe in a future presentation.

But I do want to share with you that in large groups the social hierarchy of cats is so complex, right. There are all these different relationships going on. Cats can, again, be very cliquish, some may remain solitary. Smaller groups, it's not nearly so complex, and better yet, when

they're in very small groups or pairs, man, you can really set up some cats for some really good company if the match is right.

When cats are stressed in a social situation you know it because sometimes from things like spraying and marking, constant hiding can be a problem as well. Overt aggression, like combat, fighting, is pretty uncommon but what you'll see is very covert aggression, where higher ranking cats are using very assertive postures, staring other cats down, you know, being very subtle but yet inducing a lot of stress, and doing that sort of subtle manipulation to control resources and control the environment.

It is common when new cats come in or when cats leave for the hierarchy to shift and social stress to be increased. Cats manage social conflict by having enough space to get away from each other. So when you're housing unfamiliar cats together, it's really important not to put them in a tight space together. They need to be able to get away. But a really important point is that signs can be kind of subtle even when stress is quite severe.

So here is some communication between two cats. This brown tabby cat is approaching the black and white tuxedo cat, and she is saying I am uncomfortable. I am leaning back, my body is tucked, my ears are going out to the side, my paw is coming up. And as he continues to approach her, man, she makes herself as big as she can, she tries to shift those ears forward a little bit. She's hissing, she's staring, she is saying get away from me, and he does. He sits back, he defers, and she walks on. But the stress she is feeling is incredibly profound, incredibly profound. So she may just be laying in a corner most of the day, and then she gets up and tries to move around and this is the interaction that happens and people don't notice right away because she always just looks like she's sleeping. So very stressful. So these sort of interactions, incredibly stressful, okay. That intimidating posture, that staring, that bullying making this cat unbelievably stressed, okay.

This is the sort of thing we want to see. This is why we would group cats together, so that they can experience positive, healthy, social contact. That's what it's all about, is that sort of bonding that we want to see. Sometimes it's influenced by personality. We certainly know that bold and friendly cats tend to adapt to situations, including cohousing situations, more quickly than shy and timid cats. Some cats are just bullies and they'll bully everybody, but some cats are just a little assertive because they're unsure and they're like, I don't know if I'm okay. But if you pair them with a cat that they feel totally unthreatened with, then they're fine, they're fine. They're like, I don't feel threatened by you, I don't need to be assertive at all. So this can be an option when cats are going to be housed longer-term, with the purpose of, again, providing healthy social contact. The size of the groups and proper selection is crucial. Having enough space per cat, being sure that we're monitoring and having a high quality environment is very, very important.

Of course, the cons of it are that we could induce social stress. It makes it a little harder to monitor everybody, are they all eating okay, that sort of thing. I really think a best practice is compatible pairs or maybe small groups. If you have very low turnover, a very stable setting in a shelter, a larger group may be possible, but again, it's going to be so much more complex and so much more difficult to be sure that you're on top of that social stress. Here is another reason

I like pair housing, because you can get great names, like this, and who could take home Chips and not Salsa? So a lot, a lot of benefits of small groups.

So with that being said, I'm going to show you a couple pictures and then we're going to move on to physical and mental enrichment. But these are a couple of runs that have been outfitted for small group housing. You could convert dog runs for a situation like this. Sometimes we use a small room, and this is just a chain link foyer that's been built to – when you open the door cats don't run out of the room. And then you can see some very clever ways that we can use vertical space, attaching milk crates with zip ties or maybe you'll use a ten-gallon bucket and attach that. If you're in a room be sure that you don't have ceiling tiles. Cats are incredibly crafty and this can cause a lot of damage and be very difficult to mitigate.

This is a room – a colony room that actually has condo style enclosures. In this setting it worked great because the cats could kind of get acclimated to the setting and then they would be let out and have some options. And then they would be in their enclosures at night, which made monitoring better. So, so many different options.

And obviously the selection criteria for grouping cats, familiar cats that come in together are going to be the perfect cats to think about. We can group unfamiliar cats together if they're going to be in the shelter long-term. Say you know the adult cats, a particular color, they tend to be there longer, we need to get them in a different setting maybe, you can do that. I would think about age. You don't want to put a kitten with an adult cat that's going to pounce on them and upset them. But think about personality types. Think about the bold and friendly ones adapting more quickly.

If you have a shy cat, sometimes a calm juvenile cat, you know, kind of a teenager, not a real little kitten but a teenager might be helpful. And again, those assertive cats, you might try a younger cat, or if it's a boy, try a female cat. Eighteen square feet per cat is what's purported by the AFC as being a recommended guideline for space per cat. That's a lot of space but recognize that a lot of factors including the relationship between the cats, whether or not they're previously familiar with one another or not, and the overall level of behavioral care and the amount of vertical space, all of those things are going to factor into the exact requirements.

I like to think of them as needing a nice apartment, and if you're using dog runs and converting them, these are the rough guidelines that I recommend. Two unfamiliar cats, three cats that know each other, and with juveniles, you know, the kids, they often will accept a little higher housing density.

Recognize that just because they're not in the same enclosure doesn't mean that they can't induce social stress. This would be such an easy fix, all we'd need to do is cover this and this cat, this tuxedo cat that's staring at this poor caged cat in the next room, wouldn't be able to induce that extreme stress. And of course, we need that environment to be enriched as well. So another picture of a run, a four by six run that's set up for a couple of cats, and another one as well, and because of the time, I am going to kind of segue now, and go through some of the material that we have for you on physical and mental enrichment.

As we wrap up our thoughts here on social group housing, I want to just say that the way you'll monitor that is by looking for normal species-typical behaviors, they should be there. And we're looking for signs of bonding among the cats, or at least, that they are comfortable in the proximity to each other. They don't have to be sleeping on top of each other but that they're not practicing avoidance constantly. Those are very, very important things to look for. And it is going to take some really cat savvy staff, more than just walking by once a day. And don't overcrowd it because you will defeat all of the benefits of it if we do that.

Like this picture, this looks nice, actually. At first glance we go, oh, they're sleeping, they look so cozy. Well, this is a four by six room and that cat tree is the only vertical space, and if you count, there are actually nine cats in that room, nine cats. And isn't it interesting that this center perch with the yellow blanket is empty, and the reason it is is because the two most dominant cats in the room, the most high ranking cats in the room, well, they control that perch. That was how they got down and they controlled all of the resources in that room. And if you watch long enough, you would see that. Most of those cats were feigning sleep and were sequestered in place and were not able to benefit from having a nice apartment. So – and that's why it's so important to provide enough space.

Okay. Now for the really fun part of the presentation, we're going to delve into other types of enrichment, and I've put together a booklet that you can give your volunteers and hopefully give them all sorts of fun ways to interact with cats and improve their behavioral care. And remember the purpose of this is to encourage those species-typical behaviors and give the cats more of a sense of control and prevent the display of abnormal behaviors and negative emotions. And we want to give this the same significance as any other component of animal care, so regular social contact as well as that mental and physical stimulation.

So a little cartoon for you as we segue into this final segment, and we'll talk about social enrichment with people, connecting with cats. Shy cats often really appreciate one consistent caregiver. If you have a shy cat, you know they don't want to be petted by ten different people. Some cats really respond great to petting and massage and grooming is very pleasurable for some cats. And then some cats just want to be together. You just hang out together.

When you use grooming equipment, it's good to give volunteers things that are sanitizable. One of my favorite tools is an undercoat rake, very easy to clean, unlike a bristle brush and the cats really like it. Start working under the chin with that. If you haven't tried one, try the Kong Zoom Groom, also pretty easy to clean, and some of the cats, they really love that. It's a nice rubber thing to rub around their neck and face.

Some cats are going to be really too sensitive to that, so body language is something that we have to teach the volunteers to look at for signs of overstimulation, and certainly teach them the polite way to pet a cat and some of the areas that typically are off limits for some cats. Some cats like a belly rub but most of them feel that that would be quite rude. Another sure bet is to rub gently in a slow circular motion on the very top of the cat's head. That's an acupressure point for calming and can be a really nice way to engage cats with a little social contact. And again, some cats are just pleased to be near you, maybe for a little office time in this case.

Playtime with caregivers, interaction via toys can be fun for the cats as well as fun for the caregivers. I think when enrichment is fun for the people that are doing it they are going to do it a bit more. It can also be a very good way to engage shy cats because that desire to pounce is just hardwired into them and can help bring them out of their shell. So that is predatory behavior that they just can't help themselves to do. And you can make your own cat dancer toy - go to the dollar store, hey, at the dollar store they're only a dollar and you can find all sorts of other things at the dollar store as well.

So here's one of my favorite games. People love to play this with cats, a little cat fishing for you. So again, when you have enrichment, it's fun for the volunteers; I think we engage the volunteers more. We can engage adopters. So we've taken the bold and friendly cats; some of them may come out for a little group play session. If that works for those cats, if they're able to play and go to a group like that and get out of their cage enclosure, do a little cat fishing, this would be a fantastic way, and who wouldn't want to take home those cats for cat fishing.

I mentioned training. Training, again, is the total package in terms of engaging cats physically as well as mentally. Cats do respond really well to positive reinforcement or rewards. Food is usually the most motivating thing but you got to have a cat that is food motivating. Clicker training, I think, is the way to go with cats. They can understand that that click means a treat is coming and that's the very first step in clicker training, right. We click, we give them a treat, we click, we give them a treat. We do that a number of times and pretty soon the cat goes, oh, I get it, you click and kitty snacks are going to rain from the sky, what did I do that made that click come, and they'll begin to get the behaviors.

In cats, another way to use clicker training is by using – or to facilitate clicker training is to use a target stick. I like to use disposable chopsticks from a Chinese restaurant. So we all go out for Chinese food and we grab a bunch of chopsticks and come back to the shelter and train some cats. We can kind of lure them with the chopstick to do a behavior and then click and treat for that behavior.

So in this next little video, a volunteer who had never clicker trained a cat before was training a cat, and this cat was in a relatively small cage and all he wanted to do was get out. And I – from outside of the cage she did click, treat, click, treat, click, treat, and then she opened the cage and began working with him, and look at how engaged the cat is in this session. And again, this is the first time she'd ever done that. She's trying to teach him to wave. And cats are funny, they're not like dogs that take the treat from your hand. Their vision is such that they're very myopic and they have a little bit of a hard time sometimes seeing the treat, focusing on it and getting it out of your hand. So she's just setting it there in the cage for them. And he's so quick, so quick.

And then eventually, she's going to try to kind of fade the stick and just, instead of him touching the stick just kind of pull the stick up and he waves. And then eventually she may be able to just hold her hand up and wave at him and he waves. So this cat – and he's stopped trying to escape from the cage. He's like, this is so fun, this is really good.

Dr. Gourkow's research has shown that frustrated cats do great with clicker training. Such a wonderful thing for them. Doesn't have to be done every day for them to learn that, and what a great thing. A cat that's been in the shelter for a long time, teach him to high five and you can use that as a little adoption promotion as well. And clicker training can be great for timid cats. Try teaching them to touch a target stick and then gradually bring the stick closer and closer to the front of the enclosure so that they build up some confidence and learn to come up to the front. This is a great tool, the click stick, it's a clicker and a tractable target stick in one. Karen Pryor, of course, is the mother of clicker training so I'll send you to her website for more information on that.

Physical stimulation also very, very important, and I will tell you, there is nothing like a good ball. They have actually done studies where they show that cats prefers balls to toys that don't move. I mean seriously they really have, but there's nothing like a good ball. And it's really important – you don't want to leave the ball in there all the time, you know. Put it on a schedule, hey, 2:00 is ball time, we're going to drop balls for all the cats and then we're going to pick them up, you know, and maybe we're going to do that every other day or just on Wednesdays or whatever. Or maybe we're going to have a ball on a track that we leave in some of the rooms. So different ways to implement that but cats do like things that move.

They also like things that dangle. This is one of my favorite disposable cat toys to make. These are paper construction fans. They are made of pipe cleaners and construction paper, and we used to have this challenge at the local junior high school and grade schools where each class would make – each class or even each grade would compete, and we would get garbage bags full of these fans. We'd be like – we'd have enough for six months for all of the cats.

Another thing that's really quick and easy to make is a spider, okay, and you can do this with an empty paper roll and, again, a pipe cleaner. And again, you're going to have these materials that you can just give to you volunteers to give them all sorts of, I hope, new ideas. And you just attach the pipe cleaner to it and you take the scissors and you cut one end of it, and then you cut the other end of it. Attach the other pipe cleaner and voila, we have a spider. So these sort of toys, again, can be great for shy cats to get them into the game, you know, because you don't have to be too close to the cat and they lose themselves. Remember, their senses, remember, cats are very visual and before you know it he's like, oh, I got to have that, I have got to have that.

And this is another type of spider. These are gloves that dangle, and so again, it's almost visual enrichment in this case, but going around and looking and seeing. So again, something interesting to look at. So another form of spider there. So again, stimulating physical activity, having places to go. Many cats find water fountains very, very enriching, okay. So I don't know if you guys have those for your own cats at home but those are super, super popular, just like the cat drinking out of the sink that you saw earlier. Meet you later at the fountain. So those maybe appropriate in some areas. And I always say, the only thing better than a ball, perhaps, is a bag, right, or, you know, maybe a box. Maybe a box is the best thing of all. So abilities to climb and explore.

And when you set up your group rooms, I mean, imagination is the limit, and it really doesn't

have to be so fancy. Sometimes you have to be careful about how high you let the cats go, because then you have to sometimes get them down and clean up there. So that is always a factor, but you can build towers, things can be just plastic chairs that you get from Walmart, different things, different places for them to go and climb, milk crates. This is a tower that I built, the cats certainly do love to interact with us.

You can also stimulate physical activity not only through cat dance or toys that you use but also through robotic toys. These are very, very cool. Panic Mouse, if you haven't seen the Panic Mouse, a series of cat toys. They are so awesome. And so when cats are confined longer-term. You don't want to leave these on all the time but you take them in, you turn them on for a short period of time and the cats have a blast, take it away and then bring it back. You want to keep things on a predictable schedule but you also want to keep the toys new and novel so that they're interesting.

Probably my favorite robotic cat toy of all time is the Fling-Ama-String. I'm going to show you a little video here and it's exactly how it sounds, Fling-Ama-String. So here is a little video where you see a couple of the Panic Mouse toys and the Fling-Ama-String in action. This cat is like, I don't know, like, I'm not all that brave to get that. I'm going to hide behind my whale here a little bit. This is another of the Panic Mouse series, this is called Perpetual Motion, and it's marbles. Cats love marbles. Marbles are also great in rooms for cat. Just marbles going around and around, completely fascinating for these cats. Just like I have to get that.

So physical and mental stimulation going on here. And again, the idea would be to turn this on in a room for a period of time, a short period of time on a rotating schedule so we don't leave it on all the time. The very last one you're going to see coming up here is the Fling-Ama-String, which I think you'll really totally enjoy. *[Laughing.]* This is silly. There is it, and it's just like it sounds, Fling-Ama-String. I'm always amazed, I find that even geriatric cats, the oldest of cats, that's a 14-1/2 year old cat right there, love this thing. They really love this thing.

All right, outdoor access when weather permits can be a really nice thing for cats, and of course, that's going to be climate dependent. Cats like to explore outside where the fresh air and sunshine – fresh air and sunshine help everything, physically, behaviorally. This is actually called a Purrfect Fence. It is designed to turn inward so that the cats can't climb out of it. I actually have found them in many instances to be very reliable. Of course, whether this is appropriate for your organization we don't – I can't comment on that. It just depends on the situation, the setup and how long the cats are there, but certainly you could have a run outdoors with a solid – or panel, a run panel on top of that.

Again, I want to circle back to the fact that enrichment programs should stimulate all of the cats' senses in positive ways. Visual enrichment is really important for cats. They've shown that cats that have interesting things to look at spend less time sleeping. So that's a great thing. So having windows, having interesting things to look at. I love to watch things that move. A perpetual motion device outside of my enclosure, a bird feeder. Again, not that I don't like the birds, I love the birds but if the birds still want to fly up and eat with the cats watching them, I don't think it's stressing them too much and I know the cats love to watch things.

Bubbles, they make catnip bubbles, and you don't have to have catnip bubbles, you can just have regular bubbles. And it's fun for the volunteers. Look at this individual. I mean imagine, this became part of her job to do an enrichment hour with the cats every day and I think her welfare improved every bit as much as the cats did. Just watching the bubbles. I'm an old cat watching these bubbles and that's really fun.

There are commercially available DVDs for cats, images of squirrels, bugs, all that sort of stuff. You don't want to leave them on all the time because the cats, again, they'll habituate to it, but you turn them on, like 2:00, it's TV time and we're going to turn that on. Some cats will come and literally they're ready to watch TV. Some won't be interested but it's amazing what you will see. So sometimes we'll use a little portable DVD player. There's a bug on that screen, it looks so real. Laser pointers can stimulate a lot of activity. Sometimes people are concerned, oh, don't they get frustrated they can't ever catch it? Well, you can always toss them a toy if you want to but it's great for stimulating activity.

One of the coolest things that I've seen in the shelter is every day they would turn the lights out at 4:00 and they would turn on a disco ball and that would be like a thousand laser pointers and how much fun was that. So here's a little video that I'll show you that's got a montage of all these different types of visual enrichments. Here are the cats watching the DVD. Just like totally fascinating by it. This is the cat that was being clicker trainer earlier, he loved the DVD, he loved that DVD. He's like this is just so cool, man, look at that bug on there. And it was amazing, after this he was so tired. He just curled up and was ready to go to sleep. His meowing and his escape behavior, his signs of frustration diminished.

Now, these cats look like they're at a really good party. It reminds me of some of the parties that I went to when I was in college. So here's a disco ball. But how fun would this be, also for the staff, for the adopters, for people coming in. And again, cats get entrained to a routine, positive events. I know I'm going to get the laser at this time or that time or whatever. So it's positive things to look forward to in the course of the day. And good for the chubby cat to be chasing that laser. And then the last little video clip that you'll see here just shows you how we can engage even the youngest volunteers, and how good is that for them and for us all at the same time. So really powerful.

A couple of quick words about auditory enrichment, and I know I'm getting close on time but I am getting pretty close to wrapping up too. So I'll just say a couple of things about auditory enrichment I think there's a lot that we don't know about it, but I will say what we do know is that there are a lot of scary noises in shelters. So the way that I like to use music in the cat areas is to kind of pipe it in, have it at a low conversational level, have it something pleasant that my staff likes to listen to because I know if the staff likes it they'll be happy and then happy staff always take better care of animals. We know that to be true from studies that have been done. But at any rate, it kind of creates a white noise that hopefully is going to drown out some background barking. We want to limit noise as much as possible, but that music can be used to kind of help create a white noise to drown that out.

Some people use music more as a true form of enrichment where they bring it in periodically so the cats don't habituate to it but they just – you know, it's music hour or whatever, and that's

possible to, but in cage areas I really prefer the former. Always, always, always enforce strict rules that the volume should not be exceeded. Some studies indicate classical music may be better but I say let the staff pick something within reason that's fairly easy listening that they like to listen to and that could be it. They do make commercially available music just for cats and here are some websites to take you to those things.

Okay, yummy in the tummy. Feeding is definitely a very important form of enrichment. I just like this picture. I don't really give a lot of cats Vienna sausage, but I do find that hilarious. But you can do feeding enrichment, you can make your own, collect empty paper rolls and instead of making spider toys you can just fill them with squeeze cheese, that Kraft Easy Cheese. It's so disgusting but cats love it. Tuna, treats, just dry cat food, anything that you want. You don't have to cut the holes in it, you can fold it, you can just put it in there. You can do whatever you want to do with it and then serve it to hungry cats and that's it. That's what we do.

You can use Easter eggs, fill them with food. You can put them together or just give them the half, whatever you want. We can also make a piñata, which is one of my favorite things to do. This is just two empty yogurt cups and some colorful duct tape. I'm putting a pipe cleaner on there and that's what I'm going to hang it from. And I cut a few holes in that and stuff it with some Pounce and then I hang it up and it's ready for action. So the cat bats it, can knock the treats out.

The last one I'll show you is how to make a burrito, no purrito. A friend of mine had a client who named it a purrito, and all you need is some recycled printer paper, you just, you know, some old paper that you're going to throw out, some good treats and some scotch tape and you just put the food right in there and then you roll up that piece of paper and tape it and delicioso, purritos are served. So here are some endless ideas for feeding fun for you to see. There's a kitty spring roll. Oh boy.

And people say, well, can you give these things to cats when there are more than one in an enclosure. Yeah, if they're not having social conflict they should be okay with that, and if there is a lot of social conflict over it then that should tip you off to something. Here is the piñata. The cat hasn't quite figured it out but he's like I smell it, I like it, where is the piñata. Make something come out of it. And then I think at the end here we're getting ready to see the kitty purrito in action.

So again, I smile every time I see these videos, and I've seen them a hundred times and they still make me smile. So I just want to say to you guys how important this is for the animals, but how important it is for us too. It's what we all want to do is feel good and make the animals feel good, and when we schedule this into our daily routine it's good for everybody. It's just good, good, good for everybody.

So finally, we're going to olfactory enrichment, what is that smell, catnip, cat grass, cats do really respond strongly to these things. Volunteers can go grow cat grass and periodically bring it in for the cats, how fun is that. We all know we have different volunteers with different skills, so give something for everyone to do. One of my favorite toys to make is I take a strip of newspaper, a pinch of catnip and I ball it up and there you go, inexpensive, quick, disposable

cat toys that are aromatically enticing and I just flick them in the cage and oh, they have so much fun.

And now you'll notice, this cat is a kitten and he's playing with that paper catnip ball. Kittens don't actually respond to catnip but even if you don't have the catnip you can just use the paper ball; even that is fun for so many cats. Just flick a paper ball in a cage and watch the awakening that happens in your cat room. Do it at 1:00 every day, do it at 1:00 every day. The cats that do respond to catnip, though, really, really enjoy it and it is very safe and certainly nontoxic.

Okay. Another lesson about making interesting cat toys. Go to the dollar store, select items, whatever catches your imagination, marinate them in a little catnip. Never let a cat put his face in the bag. And then there you have it, voila, totally amazing cat toys for everybody. The simplest items can be so much fun. Other scents that you can use are things like lavender. Lavender is purported to have an aromatherapy calming effect and it's nice for us to smell too. Keep in mind that fur and feathers are very, very stimulating for cats. Those are sometimes disgusting for us and we forget sometimes that toys are made of that but they are and that's why it stimulates them.

And then our tactile enrichment cats do love to scratch. We've already talked about how important scratching is for cats, and keeping a variety of things, like this is the back of a carpet remnant, the back side, it's zip tied there to give them something to scratch on. This is that commercial available Stretch and Scratch. Many of you guys have probably seen that. Different types of corrugated cardboard that you can use.

And finally, don't forget the importance of a comfortable bed. I can't say too much about needing a comfortable resting place. And the older cats may not be able to climb up vertically so be sure you have something for them. Sometimes a hammock is the perfect bed and you can make hammocks, there's even a website about how to make hammocks for shelter cats online. You can google it. And again, the boxes are a must. And you don't have to buy a fancy box, you can go to the liquor store, they make liquor in very sturdy boxes. Putting things on the floor for them to rub and roll on is also nice.

And remember, those are all the components of your enrichment program, now you're going to put that on a routine so they have positive, predictable events to look forward to, and the ones that aren't so positive they're going to know that's going to be over and I'm going to have a great day ahead of me. So, so important. That cat savvy staff, putting these things on a schedule, including all of the cats in some way, shape or form as appropriate for their age and for their socialization level and for their time in the shelter on an enrichment program is absolutely crucial. And using volunteers will help you be able to do this.

And pretty soon that's what you'll have, is a YMCA at your shelter, and I just want to remind everybody that welfare isn't only about the absence of negative experiences but the presence of positive ones, and we know it's working when we see the cats have healthy social contact, play, and all of those normal species-typical behaviors that we spent some much time at the outset talking about. And so when we do it right, that's what we see, all of those normal behaviors, and again, I want you guys to take away that even tiny, tiny little things can make a huge, huge,

huge difference and improve not only emotional health but decrease disease transmission, increase adoptions, increase the welfare of our staff.

And so with that, we're going to finish with this poll question and ask you guys one last question, Jessie.

Jessie Collins: Remembering that Rome was not built in a day, do you have some fresh practical ideas for decreasing stress or providing enrichment for your shelter cats? Choose all that apply. Yes, I have some things I plan to do immediately. Yes, I have some things I plan to work towards step by step over time. Yes, I can't wait to shop at the dollar store. Yes, but I am not sure where to start. Or No, I am not sure if I can make any changes. Please answer on your screen.

Dr. Brenda Griffin: I can't wait to see the results of this one. I'm very excited.

Jessie Collins: And here are our results.

Dr. Brenda Griffin: All right. Now, you guys could have answered as many of those as you want. I'm so excited, you guys are going to the dollar store, you're going to be working step by step. This is awesome. That makes me really, really happy. And that really is what it's about, guys, because you can't build Rome in a day but if you're able to take back even a couple of tiny things, you're going to make big, big, big differences.

So I know it was a lot of information but I truly hope that you're just taking away even a couple of little pearls and we'll all help the cats together. So thank you so much.

Jessie Collins: Thank you, Dr. Griffin. It looks like we will have time for just a couple of quick questions. So here is our first question. Is a shy cat a good choice for group housing?

Dr. Brenda Griffin: That is a great question, and absolutely you can group house shy cats, but remember the shy cat is going to have a more difficult time adjusting. You're really going to want to put that cat in a smaller group and set them up for success. So if they have a cat that they've already come in with, a familiar cat, obviously that's the best, but a shy adult cat, sometimes they will be best with a cat that maybe is a bit younger than them that is a friendly cat that's a little bit younger than them. That will give them some confidence and they won't be overwhelmed in a big group or with a bunch of other cats that they might find a little bit intimidating.

And I think that it can enable them to really come out of their shell, and when they can pair up with another cat, it can really be reinforcing. I mean cats and dogs are, to a degree, observational learners, and when they see other cats that are relaxed and playing and content in the setting, they will take something away from that. So it's a great question. Yes, you can but you do have to choose carefully and be sure you don't put them in an overwhelming sort of environment, but it can really set them up for success when it's done well.

Jessie Collins: Great answer. Our next question is what to do about cat privacy when there are public windows on one side of cage and wire doors?

Dr. Brenda Griffin: Yeah, it took me a second to – that's a great question, and I think that's going to be defined a little bit by the individual cats. You know, some cats are going to be fine if we just have a feral – what we call the feral cat den, some sort of box, some sort of hiding spot in the enclosure. That is so important to have a box style enclosure, where they can, again, give themselves a break if that's what they need to do.

People sometimes say, oh, I don't want to put the box in there because they're going to be hiding all the time and I want the public to be able to see them, but if they see a cat that's like scared and tense and tucked up, that's no good either. So I'd rather see the cute cat in the box. And we know that if the box is there that will help to mitigate the cat's stress, and as stress eases then the cat will feel like coming out. So it's just a win-win-win situation not to mention it's the right thing to do.

So I would say to put a hiding box, an attractive hiding box in there so that the cat has that option for refuge that way. And in some cases, if you have cats that are really socially challenged, that are really feeling the social pressure from having an enclosure that's like that on both sides, you may have to put up some sort of shielding on the nonpublic side, perhaps. And having quiet areas and having the volunteers work with them with clicker training, targeting to come up and learn to come to the front of the enclosure. So a bit of a more holistic approach there might be helpful. So I hope that gives you some ideas and helps some.

Jessie Collins: Thank you. Our next question so our shelter's vet is adamant that cats not have treats. Is there safe treats that you would recommend that would appeal to her?

Dr. Brenda Griffin: Wow, that's a tough one. You know, people sometimes call me Dr. Cookie, so I am kind of at the opposite extreme. I'm like – and I understand that it's frustrating to deal with a lot of diarrhea cases and, you know, some cats are sensitive to diet changes, and so I understand where that train of thought comes from, but I also just really want to emphasize that feeding is a powerful form of enrichment. So perhaps there is a particular type of canned cat food or something that could be – you know, something consistent. We want this type of treat or this type of canned cat food that is donated and that we have available for the cats so that we're giving consistent types of treats and that will help keep things in line with the consistent diet.

So, you know, if we have 20 different kinds of treats, you know, I –. So maybe you can strike a balance there between too many types of treats and just say, okay, we can have treats but it has to be a consistent type and come up with a canned cat food or a commercially available treat that we can all agree on. So I would say to strike a compromise somewhere in the middle so everyone's happy. I hope that will give you some good ideas to help.

One of my favorite cat treats, by the way, is freeze-dried liver, which you can buy in a pet store or online. It's often sold for dog treats, actually, but it's great. Cats love liver, freeze-dried liver is, I find, incredibly palatable and also, in small amounts, very – tolerated very, very well by cats.

Jessie Collins: Okay. We will be taking one last question. If your question wasn't answered tonight, don't worry, Dr. Griffin will be answering all questions submitted in a document which will be

posted on the website. On to our question. I have a feeling that when propose some of these things as an enrichment plan for cats that certain staff will argue that it is risky for disease transmission, URI, et cetera. Do you feel that the reward is far greater than the risk?

Dr. Brenda Griffin: Absolutely, positively, without a doubt. We have an increasing body of scientific evidence that tells us that it is the stress that the cats are experiencing that is the greatest risk factor for induction of the upper respiratory infection. We're all exposed to a variety of germs every day, it's inevitable. Now, we do need to have good biosecurity and sanitation protocols. We've got to vaccinate on intake, of course, you know. We don't want to take a cat with a snotty nose and plop them down and spread germs everywhere.

But it's not just that you're exposed to germs, it's also what your body is experiencing, and one of the most profound things that will contribute to the induction of respiratory disease in cats is stress in cats. And again, Dr. Nadine Gourkow that I mentioned earlier, her research has shown that these measures, such as gentling and other forms of enrichment, reduce stress in cats and also the incidents of respiratory disease. It actually enhances immunity. She's actually measured surface antibodies in these cats and shown that these techniques can increase immunity in cats.

So again, I think we have a lot of scientific information that supports the awesome importance of enrichment programs. We always want to be a little bit more careful with our very young kittens, okay, but fortunately, very young kittens often come in with litter mates and, you know, the best cat – kitten toy is another kitten. So hopefully they won't be in a shelter very long either because they're kittens, they'll have a tendency to get adopted quickly and they can be housed with other kittens in all right more bio secure environment.

But for everyone else, I say that the benefit of enrichment far outweighs the risk. We know that now more than ever. And so I say do a pilot project, you know, and show that we're going to improve cat health and not diminish it when we do these things. So good luck with that. I think it's always going to be an ongoing thought process because it's hard to let go of our old ideas. We're all trying to do the right thing, but again, we do have definitely an increasing body of knowledge to let us know that scientifically this is such a valid and important thing to do, not only for behavioral health but for physical health too.

Jessie Collins: That's the end of our event tonight. We want to thank Dr. Griffin and all of you for your time tonight. Be sure to join us on June 23rd for the final presentation in this series, Stress Reduction – Happy and Healthy Shelter Dogs, with Dr. Sarah Bennett. For more information and to register, go to our website at www.maddiesinstitute.org. The resources for this webcast are already available to you on our website, and the webcast itself will be available on demand shortly. We hope you will share this presentation on your social sites. Thanks again for being here with us this evening and goodnight.

Dr. Brenda Griffin: Goodnight, everybody.

[End of Audio]