STRESS REDUCTION....

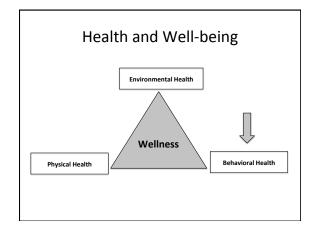


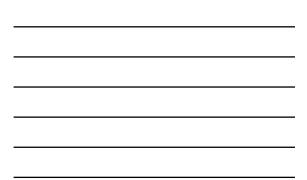
Happy and Healthy Shelter Cats on a Fast Track to Adoption!

Brenda Griffin, DVM, MS, DACVIM — University of Florida

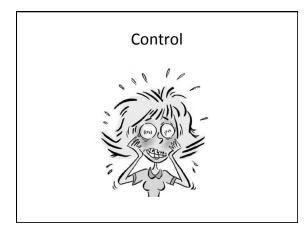
What we will cover...

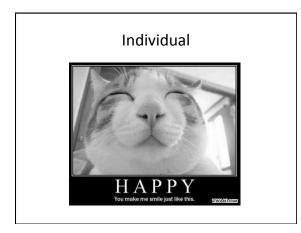
- Enrichment
 - Definitions and concepts - Basic needs/requirements for housing and enrichment
 - Monitoring
 - Types of enrichment
 - Social
 - Physical and mental activities
 - Sensory enrichment
 - Daily routine





Enrichment for Shelter Cats = Preventive Behavioral Healthcare





Shelters are not normal or natural places to house animals!

- Animals are HIGHLY stressed at intake.
- Coping with stress day to day is difficult.
- Simply engaging in "normal behaviors" may be difficult.

Shelters are not normal or natural places to house animals...

- Stress impacts both behavioral (emotional) health as well as physical health...
- Will stress lead to physical illness?



 Will the animal develop abnormal behavior in the shelter? Or will he/she experience fear imprinting and develop "permanent emotional scars"?

Proper Housing Housing design and operation can literally "make or break" the health of a population



Housing not only affects the animals, but also the people surrounding them

- Staff
- VolunteersAdopters



- Donors
- Others supporters/partners

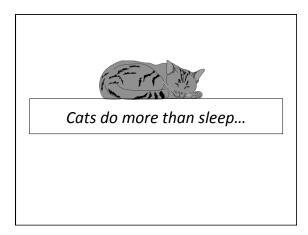
Proper Housing

- Regardless of the species in question, it must:
 - Include a comfortable resting place
 - Ensure freedom from fear/distress
 - Allow animals to engage in species typical behaviors
 - Provide for both physical & emotional (behavioral) needs



Engage in species typical behaviors







Behavioral healthcare in the shelter...

is essential to promote normal, species typical behaviors.

- Provide control, variety, choice
- Crucial for stress reduction and for health
- Enrichment is not an optional task!

Normal, Species Typical Behaviors → Promote Positive Emotions

INTEREST DESIRE CARE NUTURANCE PLAYFULNESS JOY CONTENTMENT SECURITY COMFORT COMPANIONSHIP CALM ENJOYMENT

It's good to feel good!

Cats NEED to be cats!

Provide for both physical & emotional (behavioral) needs

Feline Physical Needs

- FoodWaterShelter
- Comfortable environmental temperature
- Clean/sanitary environment
- Clean air to breath
- Regular light:dark cycles
- Aerobic exercise
- Rest/sleep; sense of security
- Medical care Freedom from infectious disease
- Freedom from physical pain



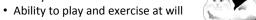
Feline Behavioral Needs

- Opportunities for social interactions
 - Humans
 - Other compatible cats
 - Other species?
- · Ability to create different functional areas in their environment
 - Rest
 - Eat
 - Eliminate



Feline Behavioral Needs

- Ability to hide in a secure place
- Ability to sleep without being disturbed
- Ability to change locations in the environment, including utilizing vertical space for perching
- · Ability to move to warmer or cooler locations
- Ability to scratch



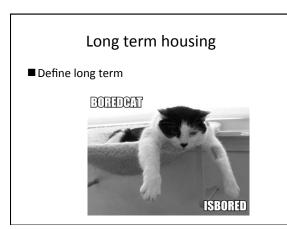
• Ability to acquire mental stimulation

Proper Housing

- Key considerations:
 - -Structural environment
 - -Social environment
 - Opportunities for physical and mental stimulation (increasingly important as length of stay increases)

Considerations at Intake

- Stress reduction
- Wide spectrum of feline "lifestyles"
- Adaptation
- "True colors"
- Behavior evaluation/personality
- Encourage species typical behaviors...
- Infectious disease control
- Preventive health care



Successful housing operation is dependent on...

- Design
- Preventive healthcare
- Understanding cats and speaking cat
 - Knowledge of feline communication and signaling
 - Knowledge of feline social structure
- Cat savvy staff is essential!

He who grabs a cat by the tail learns a lot about cats.

---Mark Twain

To understand how cats respond to stress...

• One must first appreciate WHO they are biologically and behaviorally...



What cats are and why: Understanding the feline mind

- True carnivores
- Prey predatory species
- Evolved from African wildcats



Understanding the Feline Mind

- The Perfect Predator
 - Balance, flexibility, keen senses
 - Suspicious
 - Explode with activity
 - Catch small prey
 - Escape from large predators



Evolved and Equipped

- Whiskers
- Hearing, sense of smell
- Balance
- Righting reflex
- Vision
 - Movement sensitive
 - Night
- Homing ability



Uniquely Agile

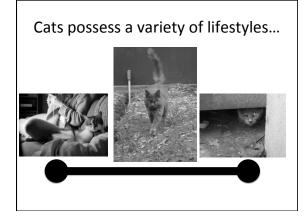
- Stalk
- Pounce
- Sprint
- Vertical jumping & climbing



Hard-wired

- Faced with two evils...
 Cats will choose the lesser
 - Better at escape than
 - defense





Common physiology...

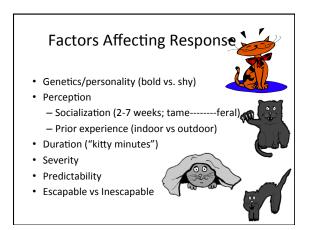
• Fight or flight



- Adrenaline (epinephrine) release
 Prepares body for action
 - Increase blood pressure, heart rate, respiratory rate, cardiac output











Active Communication

- Visual signals (body language)
- Vocal signals



Passive Signs of Stress

- Refusal to eat
- Inability to rest/sleep
- Constant hiding
- Feigned sleep
- Hypervigilance
- Absence of grooming
- Activity depression
- Social withdrawal
- Physical exam: elevated HR, RR, temp dilated pupils



Shelters ARE Stressful

- Imagine YOUR pet in a shelter
- Responses ARE very individual
- Regardless, first few days are VERY stressful
- Coping may occur
- Long term stays- chronic stress

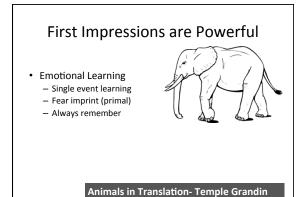
Keep in mind their keen senses

- What do they smell
- What do they seeWhat do the hear



What do they feel





Behavioral health can be compromised in the shelter

- Frustration and tedium of confinement

 Insufficient outlets to express normal behaviors
- Chronic fear; generalized anxiety
- Emotional/behavioral deterioration
- Depression/social withdrawal
- Activity depression
- Learned helplessness
- Escape behavior
- Aggression



Enrichment = Stress Reduction = Variety, Choice and Control!

Eliminate "fear factors" Housing (enclosure size, type and

conditions) Social companionship- human

and/or conspecific interaction Physical and mental stimulation Play- social and toys

Sensory enrichment (olfaction,

vision, auditory, tactile, pheromone therapy) Feeding enrichment

Training programs- positive reinforcement based! Provisions for species typical behavior (eg. scratching, elimination, feeding pattern)

Provision of behavioral options that allow an increased sense of control over the environment, consistent and predictable routines, proper population management (avoid crowding, separate cats from dogs), light/dark cycles, and noise control

Enrichment is not an "optional" task.

The Power of Prevention!

We CAN provide for the emotional needs of the animals in our care and help them cope with shelter life!

- An emotional wellness program starts with proactive strategies to decrease stress, fear and negative experiences while promoting comfort and providing regular, positive, predictable experiences throughout each cat's stay.
- Providing cats with comfortable housing, gentle handling, consistent daily routines and regularly scheduled play and exercise, mental stimulation and social companionship is crucial. (Cats need to be able to do the things cats enjoy doing; they need outlets to express their normal behaviors.)
- Most of all, cats need to know how to interact and build a trusting relationship with their caregivers, because reliable, positive social connections with us are essential for their well-being.

Housing Design and Operation

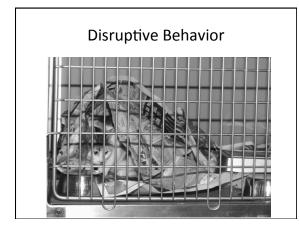
· Short versus long term











Feigning sleep associated with active stress (severe anxiety, fear, terror)

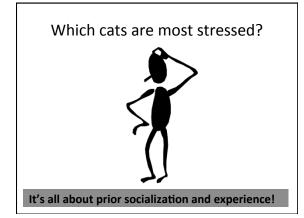
- Cat may be frozen, catatonic
- Dilated pupils
- Tense body and face
- Ears erect and eyes wide open hypervigilant
- "Like a scared rabbit in the grass."



If Given the Option: Hide

- Coping Cats
- Need control over the stressful stimulus
- Need to hide
- Always provide cover for cats





Which cats are "most susceptible" to stress?

• Feral cats

Geriatric cats

- Poorly socialized cats
- Pampered house cats



• But always remember, cats are individuals

Stress Reduction

 Scientific studies have demonstrated that the single most important method of reducing the feline stress response is to enable the cat to "escape" by hiding



Stress Reduction BEGINS AT INTAKE!!

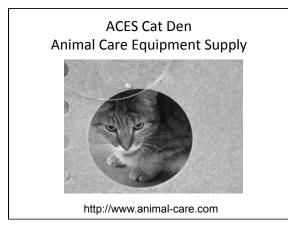
- From the moment the animal walks in the door- or even before...
- Prevent fear imprinting
- Promote acclimation
- Stress reduction is crucial to animal health and welfare!
- All cats regardless of behavior require a behavioral health wellness / enrichment plan!

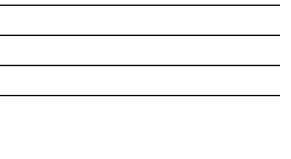
Segregation by Behavior Status

- Novel environments tend to be especially stressful for shy, poorly socialized, feral and geriatric cats and dogs.
 - Ideally, these animals, or any animal that is showing signs of stress, should be housed in separate, calm, quiet areas beginning at intake.
- Even moving an animal to a quieter location within the same ward may prove beneficial.









1st Concept of "Tiger Taming"

- Allow chill out time
 - Freaked out cats are not necessarily feral or too fractious to handle!
 - Segregate
 - Cover
 - Use signs



Keep it covered, elevated and quiet! Keep it positive and predictable!

- Holding cage with den inside should be placed in a quiet area – spot cleaning only
- Be sure to cover it drape it with a sheet
- Elevate it off the floor cats feel less vulnerable when perched at a safe vantage point
- Low/no traffic area no noise predictable schedule
- Dim lighting lights on by day; off by night
- Place food and water in back of cage cat may
- not be bold enough to go to the front to eat • Feliway in room is ideal (???)
- Cheek pheromone calming effect



Housing Design

- Meet the physical and behavioral needs
- A variety of types
- Careful planning and management
- Easy to clean
- · Safe for cats and staff



Feline Needs

- A place to eat
- Consistent routines Social interaction • Ability to play
- A place to sleep • A place to eliminate
- A place to perch
- A place to hide
- Something to scratch
- Ability to stretch, full Mental stimulation range of postures



- Exercise

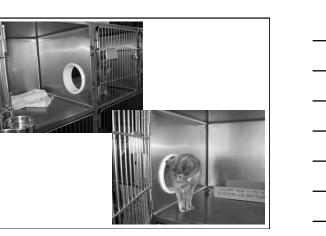


Intake Housing

- House individuals, bonded pairs, litters, families
- Easy to clean/disinfect Well ventilated
 - Provide for basic needs
- Intake evaluation, triage
 Hide and perch
- Legal holding
- Consistent location







Stress Reduction: Rule #1

- Keep 'em covered! (and elevated) (and quiet)
 - Remember the importance of perceptions of escape and control
 - Escapable stress vs inescapable
 - Hands off handling
 - Time to acclimate
 - Keep things positive and predictable
 - Daily routine!



Especially for the "scaredy cats"... what if we could somehow teach them that we mean no harm to them?

- Could that help them to acclimate faster?
- Could that reduce stress more quickly?
- Could it help us to better help them?



"Gentling" Technique

- Researcher Dr. Nadine Gourkow recently published some convincing data that it can reduce stress in shelter cats.
- This technique is NOT appropriate for feral cats!!
- This method is for socialized cats who are fearful and reactive. We aim to quickly teach them that we are no threat to them.
- Perform this technique in a hands off way This makes it safe for the handler, and also
 make it as "unintimidating" as possible for the cat.
- Use a long rod, and pet the cat in an appropriate way in an area of their body they might like. Do not use any force – maintain a calm and friendly demeanor. Count to 3. If this action increases their stress and reactivity in this count of three, then you must stop.
- The great thing about this technique is that it can help cats adapt more quickly in some cases. They learn that we mean no harm, and they begin to accept handling, and in a shelter, that can literally mean the difference between life and death.



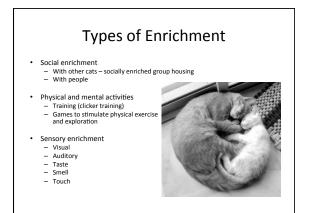


Housing: Size of Enclosures

- The larger the better!
- 4' foot print + use of vertical space
- Allows for proper separation of feeding and elimination areas (2 feet)
- Space for cat to move about
- Area to hide and perch
- Also allows for better air circulation

Whose idea was it anyway to keep cats in cages???

- My vote is for spacious runs for cats!
- Which always leads to this question... Okay -but, with all that space can we put more cats in there?
- My answer: it depends... maybe so --- but NOT TOO MANY!







Feline Social Behavior

- Not asocial and solitary
- Live in groups, complex social hierarchy
- Pecking orders
- · Maternal behavior
- = primary social pattern
- Shared kitten care
- Cooperative defense
- Affiliative behaviors



What we know...

- "Too many" is a leading reason for relinquishment
- Cats often enter the shelter in groups
- Many cats entering shelters have been socialized to other cats
- Cats have strong preference for their "friends"
- Some cats do not tolerate other cats (have not been socialized to other cats or have become negatively sensitized to other cats)

In Groups of Cats

- Large groups- very complex social hierarchy
 - A few top ranking cats
 - A few subordinate cats - The rest in the middle
 - Some form relationships with other cats
 Social cliques

 - Some may remain solitary
- Small groups (eg. less than 4-5 cats)- not nearly so complex
- Better yet, pairs of cats can be purr-fect company when the match is right!

In Groups of Cats: Social Stress

- Spraying/marking
- KITTY WAS HERE !
- Constant hiding
 Covert aggression is common
- Occasionally, overt aggression
- High ranking cats may control food/resources
- Low ranking cats may stay sequestered on perches or on the floor

In Groups of Cats: Social Stress

- Common to display aggression towards new members
- Hierarchy changes when new members enter or when old members exit the group

How cats manage social conflict

- Avoidance!
- Increase space between themselves
- Deference
- Overt aggressive uncommon
- Covert aggression common
- Signs can be "subtle" even when stress is severe!

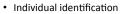
Cat Personalities

- Bold and friendly
- Shy and timid



Group Housing

- Long term option
- Preventive medical care



• Purpose: provide cats with healthy social contact and companionship in order to enhance their welfare

Group Housing



- Size of groups and proper selection = crucial
- Having enough space/cat = essential
- Monitoring introduction of new cats = must
 - Introductions can be stressful; disrupt the social milieu
 - Takes hours-days-weeks to adapt
 - Avoid frequent intros
- Success depends on the quality of the environment, as well as the size, matching and monitoring

Group Housing: Cons

- Induce social stress/risk of fighting
- Increased risk of infectious disease transmission
- Makes monitoring more difficult
 - Is everybody eating OK?
 - Is everybody eliminating OK?

Basic arrangements

- Multiple runs in a room (like dog runs)
- Small rooms
- Individual enclosures within a group room
- Group size
 - BEST PRACTICE: Compatible pairs and/or small groups of up to 3-5 cats
 - Maximum group size: 10-12 cats

Pair Housing = Marketing Opportunity! Names that go together...

- Thelma and Louise
- Bonnie and Clyde
- Sonnie and Cher
- Spaghetti and Meat Ball
- Chips and Salsa
- Catman and Robin



Benefits of Small Groups

- Small groups make it easier to prevent negative interactions among cats
- Make daily monitoring of individuals much easier
- Helps to reduce turnover in the group, which reduces stress as well as the risk of infectious disease
- Ultimate goal = social enrichment!

 Healthy, positive social contact companionship!

Selection criteria for grouping cats

Familiar cats

- Families
- Bonded pairs/groups
- Unfamiliar cats
 - Health status
 - Age
 - Personality type
 - Spay-neuter status

Personality

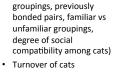
- No bullies!
- Bold, friendly
 ✓ Tend to adapt more quickly
- Shy cats
 ✓ Try smaller groups or a calm juvenile cat
- Assertive cats
 ✓Try younger cats; if male, try female cat

Group Housing - space per cat

- 18 square feet per cat
- Association of Shelter Veterinarians Guidelines for Standards of Care in Animal Shelters
 - Kessler and Turner. Effects of cage density and cage size on stress in domestic cats housed in animal shelters and boarding catteries. *Animal Welfare* 1999, 8: 259-267.

Many Factors Affect Spatial Requirements

- Length of stay
- Overall quality of environment
- Use of vertical space
- Overall quality of behavioral care
- Physical and behavioral characteristics of the cats (eg. age, prior experience,
- socialization, personality)



Individual relationships between cats (eg. family

- Absolute number of cats in the group
- Individual needs of cats

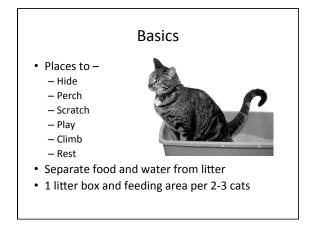


A Nice Apartment with Nice Roommates

- · Compatible house mates (and not too many)
- · Enriched environment
- Not every cat will thrive in it
- 4 X 6' run = 2 unfamiliar adults
 Familiar adults 3
 Juvenile cats a few more (4)



• 10-12' X 16-18' room = 6 - 8 adult cats



Introductions

- Extremely variable
- Try to introduce slowly whenever possible
- Adjacent enclosures may help transitions
- Period of adjustment: hours to weeks to months
- Well socialized juveniles usually easier
- Bold, friendly cats may adapt more quickly than shy cats

Introductions

- If fighting occurs at intro: very likely to continue!
- Cats that have engaged in overt fighting with one another should be permanently separated
- Careful regrouping may solve incompatibilities

Feeding and Monitoring

- Free choice
- Multiple feeding stations
- Supplemental meal feeding
- Weigh on a regular basis

Best way to monitor...

- Trained staff or volunteers sit in the room with the cats for 10-15 minutes per day
- Keep notes; communicate!!!
- Take action
- Maintain a variety of housing styles!

Housing or Population Density

- Overcrowding is one of the most potent stressors recognized in animal housing
- "Just one more" animal can threaten the health and welfare of the entire population of animals
- Overcrowding costs lives



Colony Living Environment

The success of group housing depends on the selection of compatible cats, adequate space for cats size and the overall quality of the environment and care.

Environmental Enrichment

- Mental stimulation is emotionally rewarding to animals
- Cats need choice and variety



Enrichment

• Enrichment refers to a process for improving the environment and behavioral care of confined animals within the context of their behavioral needs.



Enrichment

The purpose of enrichment is to reduce stress and improve well-being by providing physical and mental stimulation, encouraging species-typical behaviors, and allowing animals more control over their environment.

Successful enrichment programs prevent the development and display of abnormal behavior and provide for the psychological well-being of the animals.

Enrichment

- Core components:

- Regular social contact
- Mental stimulation and physical activity – Aim to stimulate all of the senses!

Enrichment should be given the same significance as other components of animal care.

Connecting with Cats

Social Enrichment with People



Quiet time with a caregiver

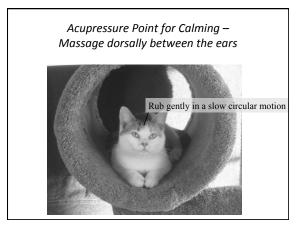
- Shy cats often appreciate one consistent caregiver.
- Some cats love petting and massage.
- Grooming is also pleasurable for some cats.
- Just being together is nice, too.
 - Consider "office time" for cats, especially those undergoing long term stays





Or just use your hands to massage and pet...

- Some kitties are very sensitive to petting and may become over-stimulated
- Caregivers must watch for signals of overstimulation (dilated pupils, tail twitching) and adjust their technique
- Cats have preferences for where they like to be petted – the cheeks and neck are good place to start for most cats



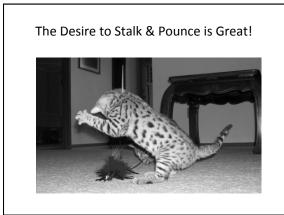




This cat is very pleased to have some "office time".

Play time with a caregiver: Interaction via toys

- Fun for cats and caregivers!
- This can be a great way to engage shy cats because the desire to stalk and pounce may bring them out of the shell.
- Play stimulates the predator within...
- Socially enriching and physically stimulating, too! Play and exercise...



Cat dancer toys can be purchased at the dollar store – they are also easy to make



Cat Training is a Powerful Form of Enrichment!

- It is socially engaging as well as mentally and physically stimulating!
- Cats respond well to positive reinforcement or rewards.
- Food is generally the most motivating reward.
- The most "food motivated" cats are the easiest to train.
- Clicker training is very useful for cats the trainer 'clicks' the desired behavior to let the cat know that was right and that a treat has been earned!

The first step in clicker training is to "charge the clicker".

- This means that the trainer clicks and then feeds the cat and repeats this over and over so that the cat learns to associate a click with food...
- This is classical conditioning.



Next, the click is used to "mark" desired behaviors

- A "target stick" can be used as a prompt to elicit the desired behavior.
- Then, the trainer clicks to communicate to the cat that the desired behavior was performed and that a treat is coming.
- Eventually, the desired behaviors are learned through prompting and rewarding the cat.
- This is operant conditioning.

In the next video, a volunteer teaches a shelter cat to "wave".

- This training session took only a few minutes.
- A disposable "chop stick" is used as a target stick.
- The trainer clicks and then rewards the cat with tiny pieces of canned chicken.
- Look how engaged the cat is he will rest well after this session!

Cat Training



Trick training is not only a great form of mental stimulation, it may enhance adoptability – adopters may be attracted to a cat that "shakes hands", "hive fives" or "waves".

For timid cats, too

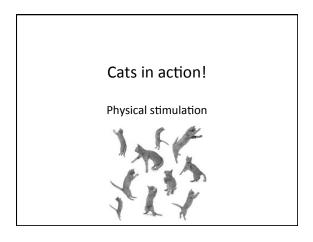
- If cats are food motivated, clicker training can be a powerful tool for building confidence.
- Some shelter cats are reluctant to come to the front of their enclosures they may be overlooked by potential adopters as a result.
- Try teaching them to touch a target stick then gradually bring the target stick closer and closer to the front of the enclosure.

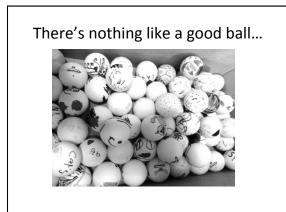
Favorite tools and resources

- Commercially available "Clik Stik" is a retractable target stick and clicker all in one.
- Karen Pryor's web site is an excelle source of information

 <u>http://www.clickertraining.com/</u>

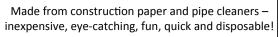












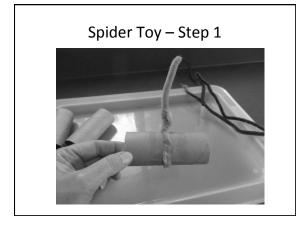


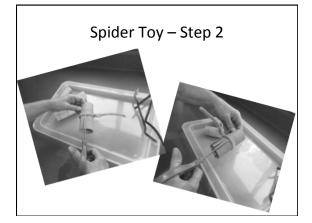








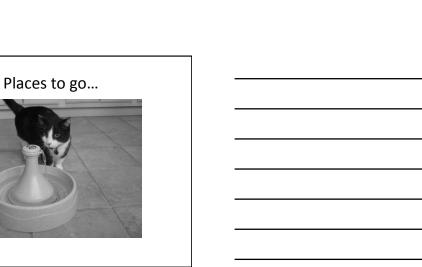






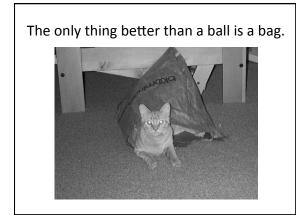


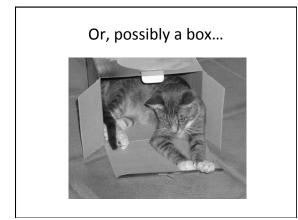








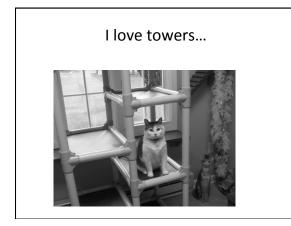




Oh, to climb and explore...



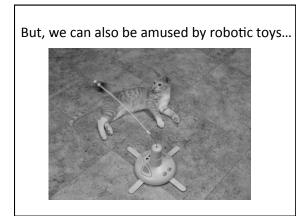








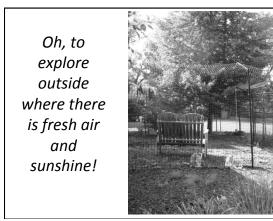






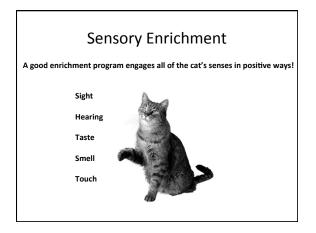














Visual Enrichment

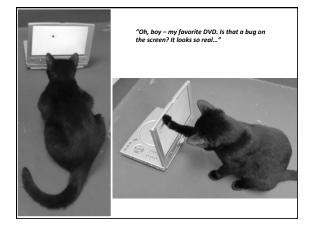


There are many commercially available DVDs for cats! Images of squirrels, bugs and birds are popular for prime time viewing!

Playing them for only a short time each day will keep them interesting because cats will be less likely to habituate to them than if they are played for long periods.



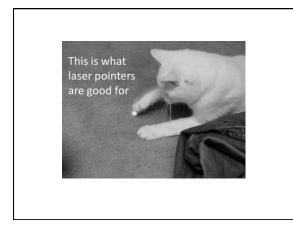


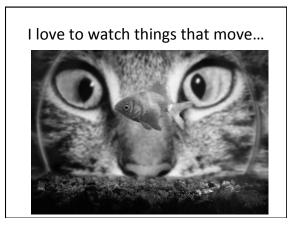


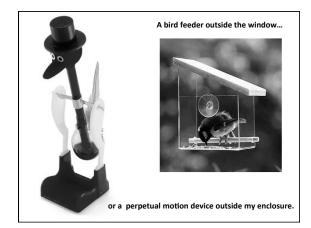




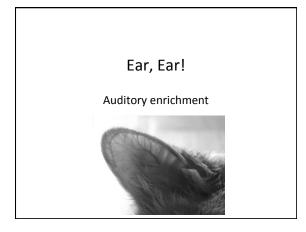












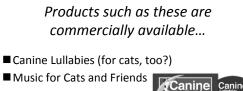
Little is known about the impact of auditory enrichment on cats...

- We do know that cats have an extraordinary sense of hearing, which extends into the range employed by bats!
- Cats are capable of detecting the high-frequency chattering of rats and mice.



What advice can we give?

- No loud music! No music with startling sounds!
- No radios on top of cages this may cause unacceptable levels of noise and vibrations and must be avoided.
- Classical and easy listening music no louder than a conversational level may be appropriate.
- Establish and enforce strict rules to ensure that a low volume never be exceeded.



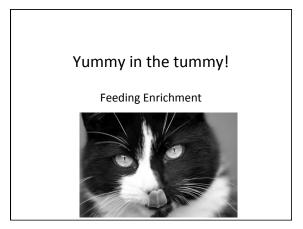




Check out these websites to HEAR more...

- <u>www.musicmypet.com</u>
- www.petsandmusic.com
- <u>www.caninelullabies.com</u>
- <u>www.petsmusic.com</u>
- <u>http://musicforcats.com/</u>









I want it, I need it,

I gotta have it!

Give me my Vienna sausage!









Make your own...

Step 2: Fill them with squeeze cheese and tuna (or anything cats find tasty)



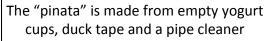
Make your own...

Step 3: Cut, fold or leave open

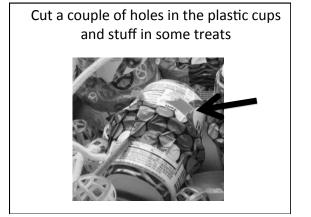


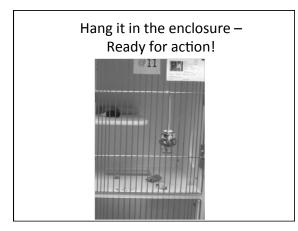




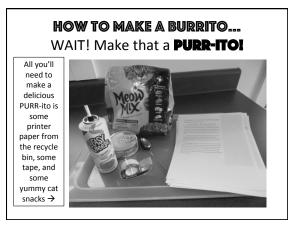


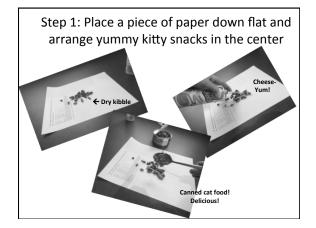














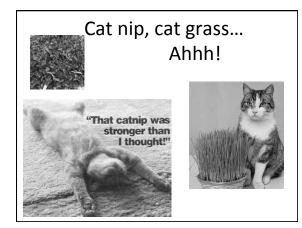














How to make a fabulous cat toy...

• Step 1: Place a pinch of catnip in a strip of newspaper



• Step 2: Ball it up



Voila! Inexpensive, quick, disposable and aromatically enriching cat toys!



Wait, do kittens respond to catnip?

- No But, the paper ball itself is fun!
- Many adult cats do respond to catnip and it can be very enriching for them!
- Catnip is safe / nontoxic a great way to stimulate the senses for many cats!

How to make interesting cat toys – Lesson #2

• Go to the Dollar store... select some items... whatever catches your imagination!





Lavender

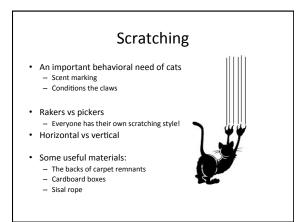


- May have a calming effect
- Some shelters use "aromatherapy" as a form of olfactory enrichment for animals and staff. Liquid potpourri, which contains high concentrations of cationic detergents and essential oils, can cause oral and gastrointestinal ulceration as well as neurologic signs if ingested by cats. If aromatherapy is used, care must be taken to avoid direct contact by cats so that accidental ingestion can be prevented.











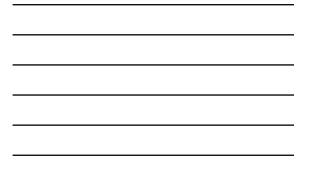


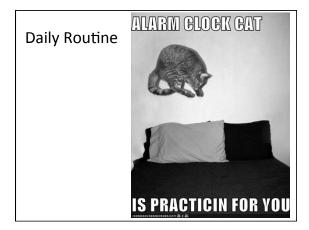
Who doesn't find comfort in a nice bed?













Daily Routine

Predictable events

 Cleaning at 7:30 AM
 Glad that's over!
 Tuna at 3 PM
 Is it 3 o'clock yet?



Light – Dark

 Lights on by day
 Off by night

Animal Care Staff

- Observant, cat savvy staff
- Regular play and petting sessions
- Socialization of young kittens

 Kittens need enrichment, too!
 Biosecurity balance
- Timid, shy cats or stressed cats: – One consistent caregiver



Volunteers

- They make it work!
- There is much to learn about behavior from volunteering at an animal shelter.



Welfare is not merely the absence of negative experiences, but also the presence of positive ones.

Monitoring – Is it working?

- Happy cats engage in healthy social contact.
- Happy cats PLAY!!
- Happy cats explore, stalk, rub, roll, stretch, scratch, snack, groom, nap, relax!

It's Contagious!

- One simple and widespread form of emotional transfer among animals is the process called **emotional contagion** that causes animals to shift, upon perceiving animals in an emotional state, their own affective state in the same direction.
- Because this process can multiply both negative and positive emotions in animal groups, it can be of importance for welfare in domestic and captive animals.

Spinka. Social dimension of emotions and its implication for animal welfare. Applied Animal Behaviour Science. 138; 170–181, 2012.

Conclusions

- Proper housing and enrichment meets needs
- Frequent displays of normal feline behavior – Cats need to be cats!
- Small changes can make a big difference
- Positive benefits
 - Improved emotional health
 - Decreased disease transmission
 - More rapid recovery from disease
 - Increased adoptions
 - Better cats!



