Keeping shelter cats healthy and happy: feline stress basics

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Good and bad news: dose effect counts for stress too

• Reducing some stressors or providing tools to cope will help cats manage other stresses beyond your control
• Healthy cats are better able to withstand stress as well as vice versa

What is stress for a cat?

Stress factors

1. Owners are upset
2. Loss of owner
3. Loss of comforting sounds (meow, purr, tuna)
4. New owner or pet
5. New furniture or changes in house
6. Other cats
7. Cages or cat overhead
8. Shocks, noises, storms

Make your own list of factors for cats in your care?
Why control stress?

- Welfare
  - What is our obligation?
- Health
  - Feline herpesvirus
  - Food intake and grooming
  - Overall health
- Adoption
  - Stress leads to decreased exploratory and play behavior
  - Cats in enriched housing were adopted sooner and less likely to be euthanized
  - High behavioral stress scores correlated with euthanasia
- Education
  - Valuing cats
  - Modeling good care

Stress references


Case study: shelter disease transmission*

- Goal: understand virus transmission in recently admitted shelter cats
- Site: 2 open admission municipal shelters
  - Single cat cages
  - Cats sampled at intake and 1-2 weeks later

Cat housing at study shelters

Results

<table>
<thead>
<tr>
<th>Weeks after admission</th>
<th>Herpes</th>
<th>Calici</th>
<th>Corona</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7/162</td>
<td>17/162</td>
<td>53/162</td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td>11%</td>
<td>33%</td>
</tr>
<tr>
<td>1</td>
<td>31/60</td>
<td>10/60</td>
<td>36/60</td>
</tr>
<tr>
<td></td>
<td>52%</td>
<td>15%</td>
<td>60%</td>
</tr>
</tbody>
</table>

No surprise

* Rehousing induced herpes activation in 83% of 14 cats
** Rehousing resulted in virus re-excretion after a mean lag period of 7-12 days in four of 22 (18%) cats tested on a total of six of 40 (15%) occasions.

The bottom line:

Stress management basics

- Provide sufficient space
- Minimize moves
- Offer hiding places/environmental control
- Separate cats and dogs
- Separate eating and toilet areas
- Ensure accessible litter boxes of sufficient size
- Provide soft beds
- Monitor handling
- Monitor multi-cat housing
- Plenty of resources for all
- Maintain routine and alleviate boredom
- Lights out at night
- Integrate infectious disease control
- Don’t overcrowd
- Get animals home!

Remember dose effect 😊

What is sufficient space?

- At least 28 inches high\(^1\) and at least 1 square meter (10.8 square feet) floor space for short term singly housed\(^2\)
- At least 1.7 square meters (18.3 square feet) floor space for group housed\(^2\)

Bear with me…
Cat space references


Minimum sufficient space

Sufficient space also: creates possibility of providing hiding boxes, space to stretch and play, offers varied surfaces, adequate separation between food and litter, is easier to clean, associated with less disease and may even cost less in the long run. Stay tuned!

Separate functional areas for environmental control and ease of cleaning
Working with what you have for now

Shelves and climbing areas are nice no matter what size cage, but should not be considered a long term substitute for sufficient floor space

e.g. www.spcab.c.ca/hideperchgo/HPGOrderInfo.asp
e.g. kuranda.com/cat-bed/

Low cost, high welfare solutions?

Search FAQ# 1104 at www.sheltermedicine.com for info on cutting stainless steel

Low cost, high welfare solutions?

Cheaper, more humane housing made of less readily sanitized material may be healthier overall

Prioritize humane, high sanitation housing for high-risk intakes, kittens, and sick cats
Talk to me about cat cages!

Group housing requires more space per cat

Sixty households, comprised of either two males, two females or a male and a female were observed for a period of two hours per day over 5 different days (10 hours total). The cats spent the majority of their time out of one another’s sight (48% of time for male/male pairs, 53.5% of time for female/female pairs, and 50% of time for male/female pairs). When together, cats most frequently (25 to 31% of time) kept a distance of 1-3 meters between each other. The most significant environmental factor which influenced likelihood of aggressive interaction was time; there was a significant negative correlation between time spent living together and frequency of aggression.
Increase functional space in group cat rooms

- Sturdy, wide shelves with good footing (no slats)
- Washable patio furniture, toddler play structures
- Sticky-backed cloth to cover easily disinfected shelves
- Cat trees, soft furniture only post-ringworm screening
- Separate larger rooms to create smaller sub-groups

Not too fancy
Minimize moves

- Cage to cage
- Cage to carrier
- Single to group
- Group to single
- Even surgery, get play/get-acquainted rooms can seem like a move
- When cats must move, move as much of their stuff with them as possible

Make a list of every move cats make in the system in which you work. Can any be eliminated?

One clever no-move solution

Hiding place and environmental control

Reduces stress, reduces disease transmission, saves time, and increases self-maintenance and adoptable behavior

If cats need to hide, providing hiding places will not hinder adoption.

Who needs hiding places most of all?

Environmental control

- High versus low
- Hidden versus visible
- Cubby versus compartment
- Soft/warm versus hard/cool surface
- Watching other cats versus not (just about 50:50)\(^1\)

Sometimes even a little bit helps

Separate dogs and cats

• Also important for disease control
  – Parvo
  – Bordetella (kennel cough)
• Sick cats more stressed by dogs than healthy cats
• Sound and smell matters too
• Be aware of staff pets

Arghhh… ah-choo!
From the first minute in your care

- Think about transport vehicles, intake rooms, reception areas, walking through shelter, surgery, get acquainted areas, etc.

Protecting cats from dogs

- Towels or solid sided carriers always
  - Including animal control vehicles
- Close doors
- Consider options for barking control
- Evaluate possible pathways for dogs versus cats

Protecting cats from dogs

- Better housing permits greater tolerance of dog exposure
- Hiding places and elevation are especially critical when dog exposure (including noise) can not be prevented
**Soft beds:** at least three inches

...which stay with the cat throughout his/her time in your care unless heavily soiled or contaminated


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**Separate food and toilet areas**

by at least three feet if possible

Individual differences may apply….

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**Accessible and sturdy litter box of sufficient size**

...and with sufficient height above for cat to posture normally

Okay to scoop rather than replace daily
Cat-controlled and consistent interaction

Kitty butlers versus kitty cuddlers?
In cage interaction or get acquainted pen?
Staff assigned to consistent areas?

Monitor group housing

- Be aware of guarding food, litter, doors, shelves
- Provide visual barriers, hiding areas, lots of "corners"
- Minimize group size and rate of entry
  - Smaller groups in smaller rooms/ pens generally preferable
  - < 5 ideal, 10 maximum
- Daily observation does not quit because cats are in a group

About 162 minutes into this lecture I think we can agree…prolonged confinement unrelieved by recreation can be stressful!

- Provide varied toys and visual stimulation even for adult cats and new intakes
A few simple ideas from your colleagues

stretchandscratch.com

Not such a good idea

Create exercise areas > 5 feet from cage fronts
Clean between use and/or restrict to adult cats vaccinated at least 3 days
Include hide-y places – use carriers assigned to cat

Safe kitty recess time

Animalsheltering.org
March/April 2007
Do integrate infectious disease control

- More time with fewer cats
- Change at least before, between areas, and after
- Extra caution with kittens, suspect calici cats
- Relax progressively after:
  - Physical exam
  - Deworming
  - Ringworm screening
  - 3 days since MLV vaccine in adults (> 5 months)
  - 2 weeks after last possible parvovirus exposure

When is stress control most important?

- If handling is causing distress
- If cats are showing signs of anxiety
- If cats are exhibiting repetitive behaviors

When is welfare most important?

- When cats are showing signs of poor health
- When cats are showing signs of discomfort
- When cats are showing signs of pain
Beyond stress: The five freedoms

1. Freedom from hunger and thirst.
2. Freedom from discomfort.
3. Freedom from pain, injury and disease.
4. Freedom to behave normally.
5. Freedom from fear and distress.

Who has more freedom?

Let’s raise the bar!
What choices do cats make?

Walk!  Get up high  Spend time outside
Play  Run  Graze  Stand tall
Snooze in a warm spot  Hang out with other cats  Drink fresh water
Pounce  Spend time alone  uh
Scratch  Hang out with dogs  Groom
Get real long  Get real small  Get down low
Snuggle with people  Relax in a cool spot

Would it help to make your own list of choices cats make, choices they currently have during different stages of care in your organization, and choices you’d like them to have?

Are the choices different for different lengths of care?

How can we give cats more choices?

Stay tuned for next lecture!