

# *Cats*

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# Content

- Nutrition
- Body Condition Scoring
- Health Status
- Environment



# Overview

- The safety and well-being of a cat are determined by a variety of factors. The easiest factors to address and quantify are:
  - (1) nutrition
  - (2) health status, and
  - (3) environment.
- Significant deficiencies in any one or more of these factors can have a detrimental impact on the cat's health and wellbeing.

# Nutrition

# Feeding

- Cats should be provided food at least once each day (unless otherwise indicated by a veterinarian).
- The food should be uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the cat.
- The diet should be appropriate for the individual cat's age, condition, and activity level.

# Hydration

- If potable water is not continually available to a cat, it must be offered as often as necessary to ensure its health and well-being, but not less than twice daily for at least one hour each time (unless restricted by a veterinarian).
- Factors such as warm temperatures, lactation, and illnesses can significantly increase the amount of water necessary to maintain cats in good health.

# Increased need for food and water



# Elimination

- Indoor cats need to be provided with 1 litter box per cat
- Litter boxes should be cleaned at least once daily
- Litter boxes should be located away from their food and water
- Indoor-Outdoor cats that spend most of their time indoors need a litter box.



# ★ Ammonia

- Released from feces and urine
- Severe irritant of the eyes, respiratory tract, and skin
- It may cause burning and tearing of the eyes, runny nose, coughing, chest pain, cessation of respiration, and death.
- Repeated exposure to ammonia may cause chronic irritation of the eyes and upper respiratory tract. This can lead to eye damage/discomfort and make cats more susceptible to respiratory infections.

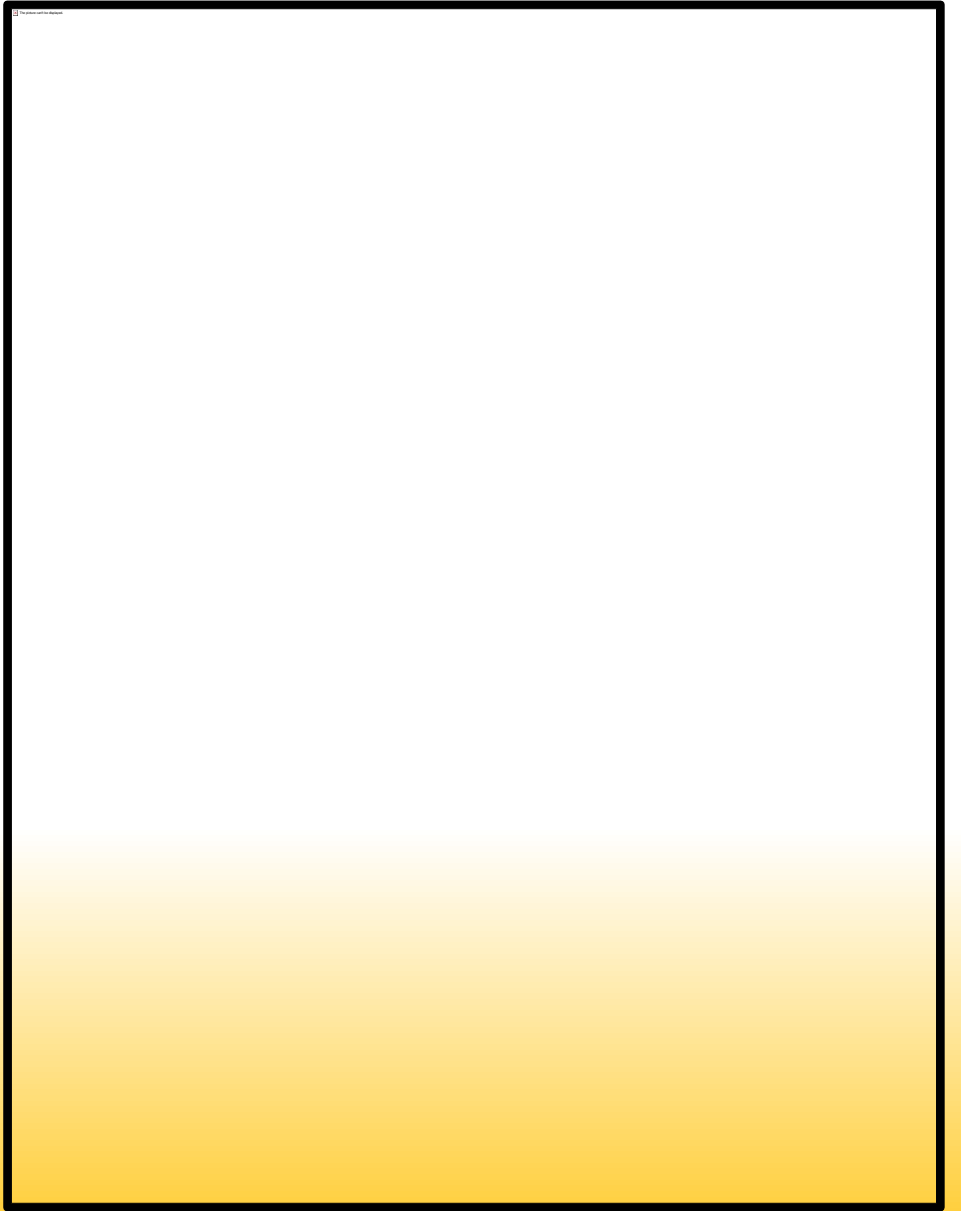
# Body Condition Scoring

# Body Condition Scoring

- **Objective** reflection of a cat's body condition
- Body condition scoring is used to determine whether the amount of energy and nutrition being provided is adequate to meet the cat's needs.
- A cat below ideal body condition is not receiving adequate energy; a cat above ideal body condition is receiving an excess of energy; and a cat in ideal body condition is receiving an appropriate amount of energy.

# Purina BCS System

- ★ • Scores 1-9
- Can score half points (no 0.5 or 9.5)
- Extremely emaciated: 1
- Extremely overweight: 9
- Optimum: 4-6
- Best to perform hands-on assessment





- BCS 1: Ribs are visible. There is no palpable fat noted. Abdominal tuck is severe. The lumbar vertebrae and wings of the ilia (hip bones) are easily palpated.

- BCS 3: Ribs are easily palpable with minimal fat covering. The lumbar vertebrae are obvious. An obvious waist is presented behind the ribs. Minimal abdominal fat noted.





- BCS 4: Ribs are palpable with minimal fat covering. The waist is noticeable behind the ribs. There is a slight abdominal tuck noted. The abdominal fat pad is absent.

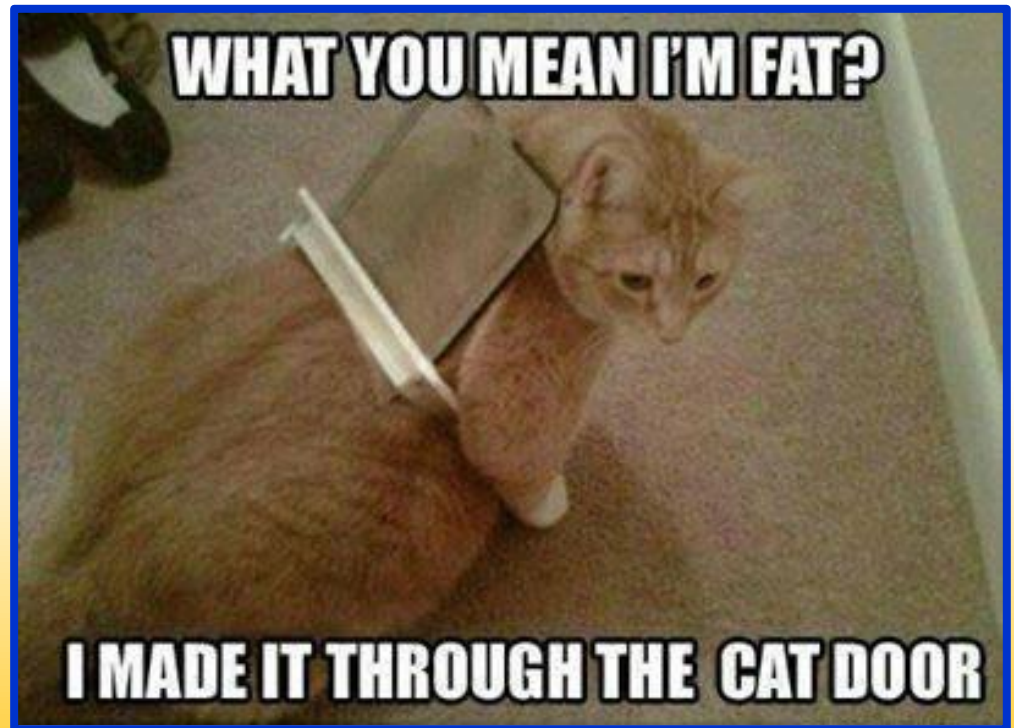


- BCS 5: Cat is well-proportioned. A normal waist is observed behind the ribs. The ribs are palpable with a slight fat covering noted. The abdominal fat pad is minimal.



- BCS 6: Ribs are palpable with a slight excess fat covering noted. The waist and abdominal fat pad are distinguishable but are not obvious. The abdominal tuck is not noted.
- BCS 7: The ribs are not easily palpated, and a moderate fat covering is noted. The waist is poorly discernible. There is obvious rounding of the abdomen. A moderate abdominal fat pad is noted.
- BCS 8: The ribs are not palpable, and an excess fat covering is noted. The waist is absent. There is obvious rounding of the abdomen with a prominent abdominal fat pad. Fat deposits are present over the lumbar area.

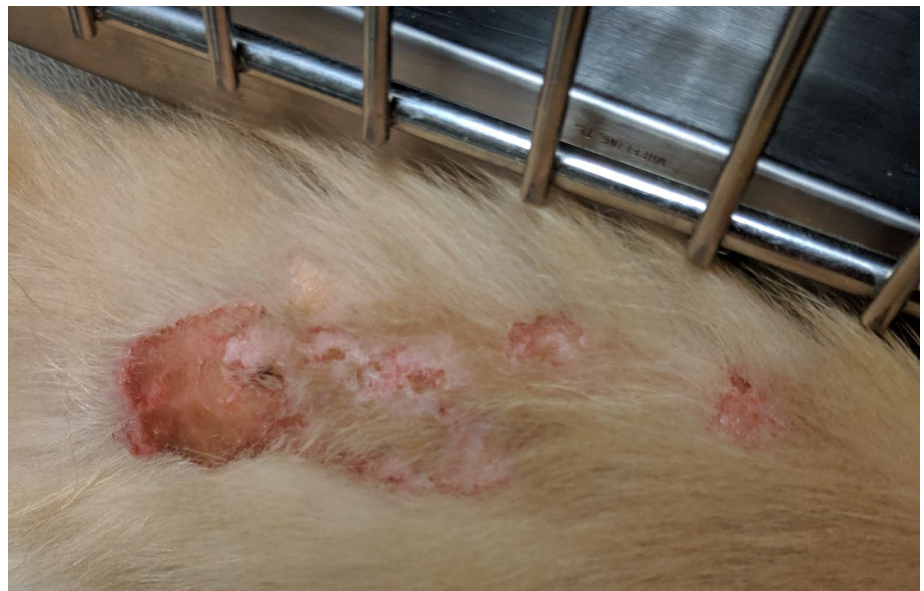
- BCS 9: Ribs are not palpable, and a heavy fat cover is noted. Heavy fat deposits noted over the lumbar area, face and limbs. Distention of the abdomen is noted with no waist. Extensive abdominal fat deposits observed.



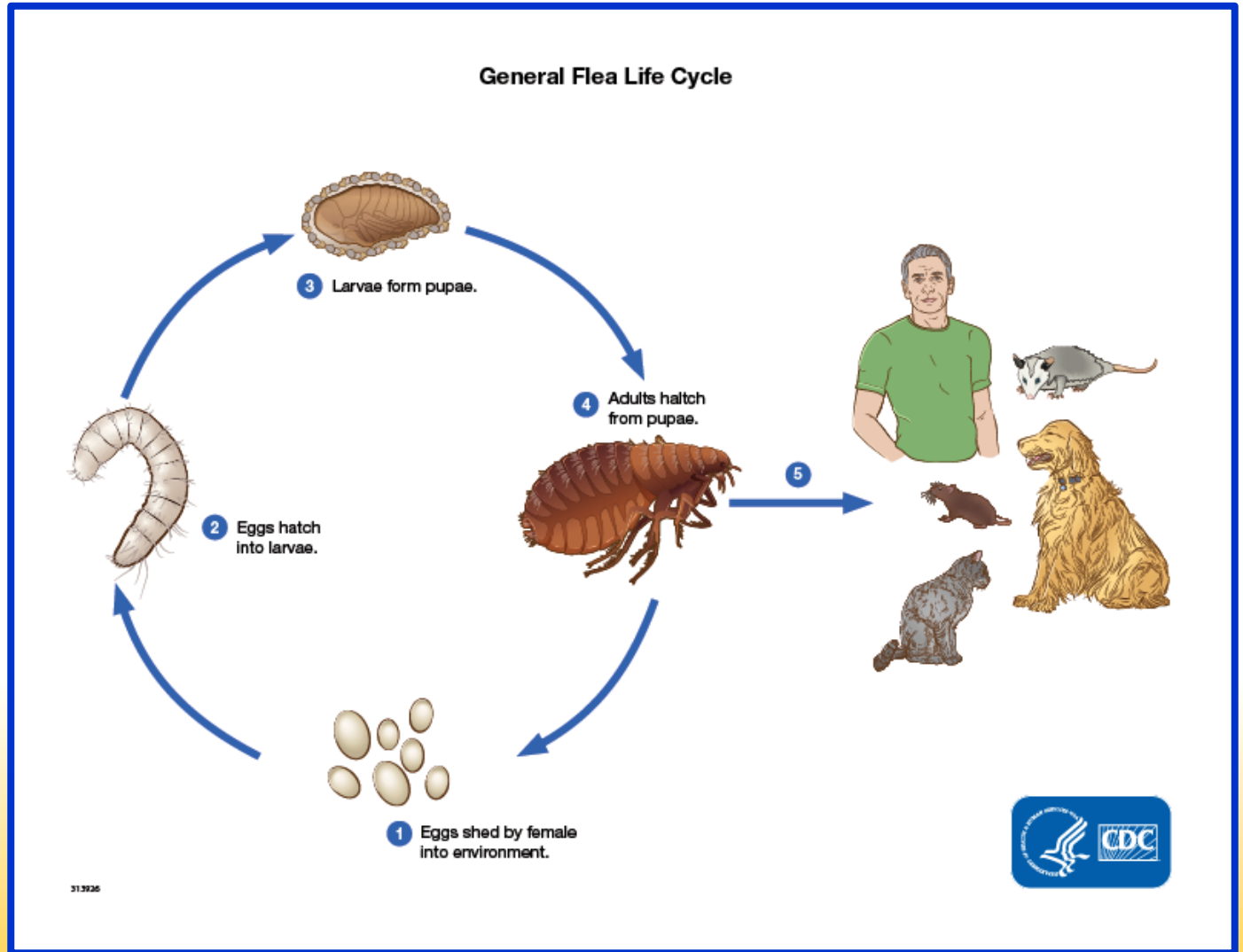
# Health Status

# Skin/Fur

- Skin/fur disorders cause discomfort to the cat and increase the opportunity for infection of the skin.
- Any type of infection left untreated can increase the nutritional needs of the cat, decrease its ability to fend off additional bacterial, viral, or fungal infections, and can potentially become spread throughout the cat's body.
- Once an infection spreads, it is very difficult to fight off; this significantly increases the likelihood the cat will succumb to the infection.



# Fleas



# Fleas

- The presence of fleas leads to a variety of health issues for cats. These include:
  - Flea allergy dermatitis
  - Transmission of tape worm larva, and
  - Transmission of significant diseases, such as plague, if they are present in the area.



# Fleas, *cont.*

- While flea infestation has a negative impact on any cat, the presence of fleas can have a much greater impact on kittens because they have little natural immunity to fight the parasite and very little reserve to counterbalance the nutritional loss and direct debilitating effects of a flea infestation.
- Since fleas ingest blood from the cat, significant anemia can result in small cats which could result in death of the animal.

# Fleas, *cont.*

- Flea allergy dermatitis is caused by an allergic reaction the cat has to the saliva of the flea. The resulting inflammatory response causes:
  - Redness
  - Swelling
  - Itching, and/or
  - Pain
- Cats with flea allergy dermatitis will often scratch at the affected area, causing additional damage, such as hair loss and sores.

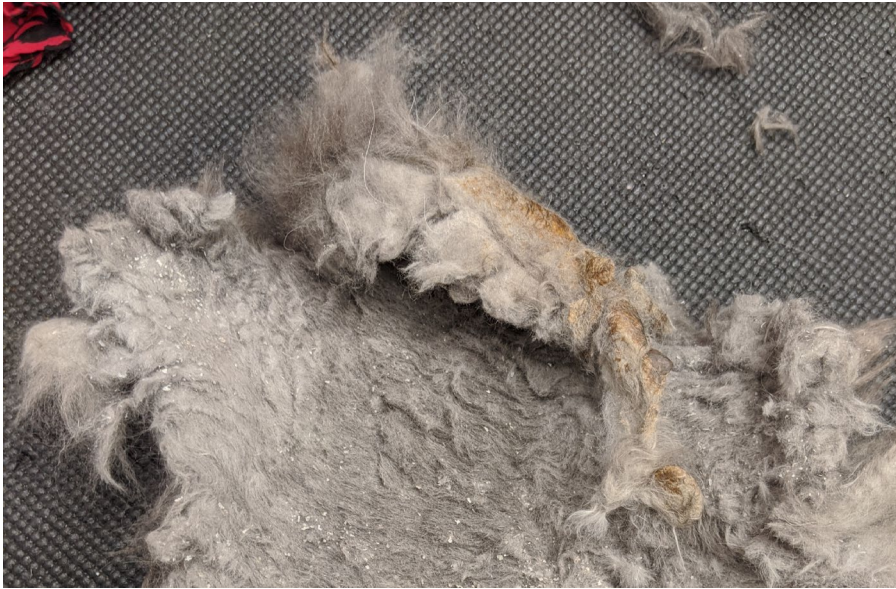
# ★ Matting

- Extreme matting of the hair coat can be uncomfortable for the pet and eventually lead to irritation and inflammation of the skin beneath the matting.
- This condition could cause a break in the skin where bacteria could enter, resulting in infection. In addition, breaks in the skin can attract flies and lead to a maggot infestation.
- Matting of the hair also reduces the insulating properties of the hair coat.

# Matting, *cont.*

- Matted hair may encircle body parts, restricting blood flow. If such a mat is not removed, the tissue below the mat may die and become gangrenous. This may result in the loss of use or of the body part.
- Matted hair may occlude the prepuce, vulva, and/or anus. Such occlusion results in urine and/or feces being held against the body. This can lead to skin irritation and damage. It may also prevent elimination. An animal that cannot eliminate urine or feces is in immediate jeopardy.





# Ringworm

- Ringworm is typically a superficial skin infection. Clinical signs include:
  - Hair loss
  - Scaling
  - Crusting
  - Redness
  - Papules
  - Hyperpigmentation
  - Itching

# Ringworm, *cont.*

- Infection in young or debilitated cats may be persistent and widespread.
- Ringworm spreads via contact with infected animals or contaminated objects.
- Ringworm is also zoonotic (can be transmitted to people).





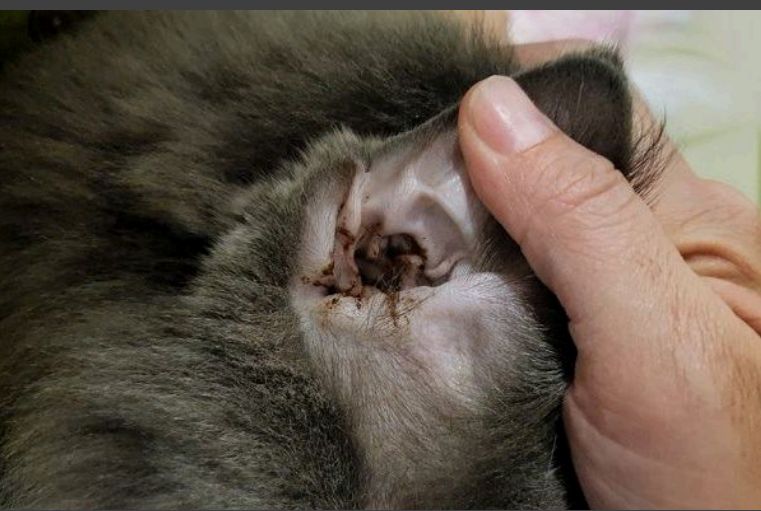
Photos: Colorado Animal Rescue

# Ears

- Left untreated, simple infections can become chronic in nature which can lead to:
  - Tilting of the head
  - Problems with the cat's balance
  - Difficulty standing
  - Nausea or vomiting
  - Paralysis of the facial nerves
  - Permanent thickening of the skin in the ear canal, or
  - Calcification of the ear canal

# Ear Mites

- Cause irritation to the skin of the ear canal, which causes the ear to react by secreting additional wax
- Causes discomfort
- Opens an avenue for secondary problems such as fungal or bacterial infections
- Discomfort demonstrated by:
  - Excessive shaking of the head
  - Vigorous scratching at the ears
  - Hematomas (blood clot) in the flat portion of the ear



Ear Mites, *cont.*

# Teeth

- Dental disease causes discomfort for the cat and leads to bacteria entering the blood system and can result in the loss of teeth. If caught in time, dental disease can typically be prevented or corrected with proper dental care, including dental cleaning by a licensed veterinarian.



# Nails

- Cats will typically maintain their claws in good condition if they are provided appropriate scratching material.

# Nose

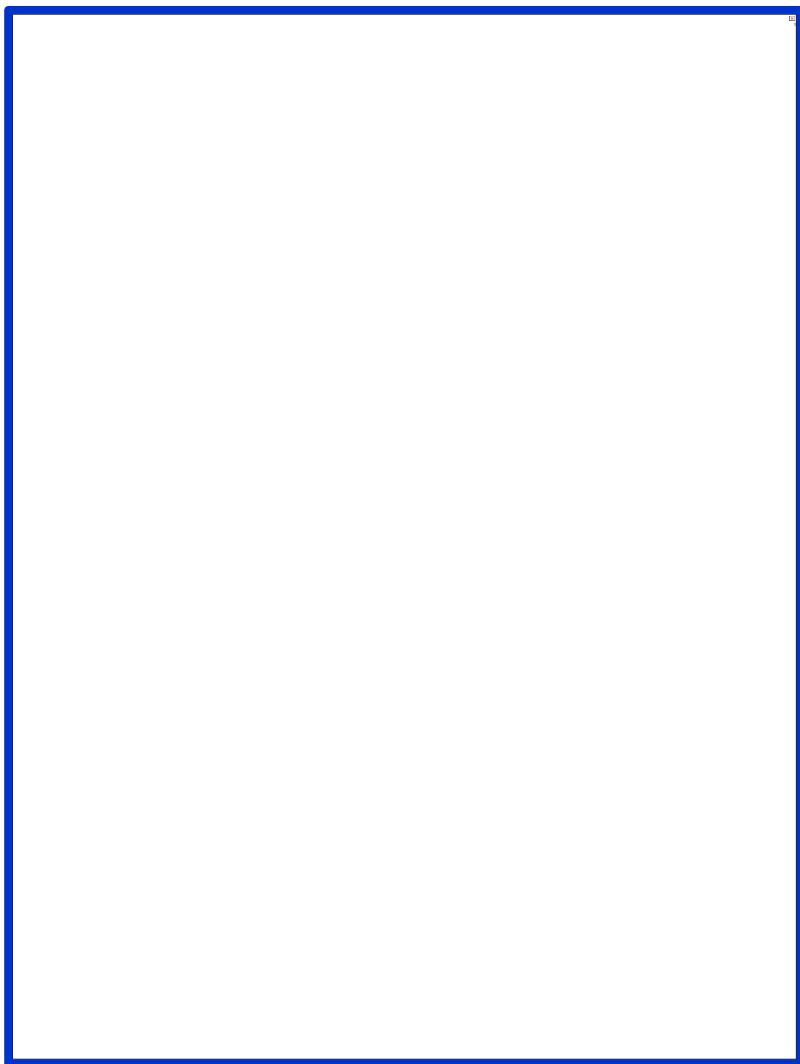


- The skin of the nose should be smooth.
- There should not be any discharge from the nose.
- Flakey or crusty skin and/or discharge from the nostrils indicates an infection or disease process is occurring.



# Eyes

- Eye conditions can be chronic or acute.
- Some of these conditions can cause:
  - Pain
  - Swelling
  - Discharge from the eye
  - ...resulting in the cat holding the eye slightly closed to protect it from light and minimize discomfort.
- Cataracts, nuclear sclerosis, dry eye, glaucoma, and corneal abrasions are common conditions in older cats.



# Upper Respiratory Infection (URI)

- General term for bacterial or viral infection
- Highly contagious
- Signs/symptoms:
  - Sneezing
  - Nasal congestion
  - Conjunctivitis
  - Nose or eye discharge
- “Common cold”

# Common URIs & Other Infections

- Cat Infectious Peritonitis (FIP)
- Cat Viral Rhinotracheitis virus (FVR)
- Cat Calici virus (FCV)
- Bordetella bronchiseptica
- Chlamydia psittaci

# Common Intestinal Conditions

- Control measures to prevent intestinal conditions caused by parasitism include regularly removing fecal matter from the cat's environment and regular de-worming.
- Kittens are especially sensitive to infection with any type of parasite, as they have little natural immunity to fight the parasite and they have very little reserve to counterbalance the nutritional loss and direct debilitating effects of parasite infestation.

# Roundworms



# Hookworms



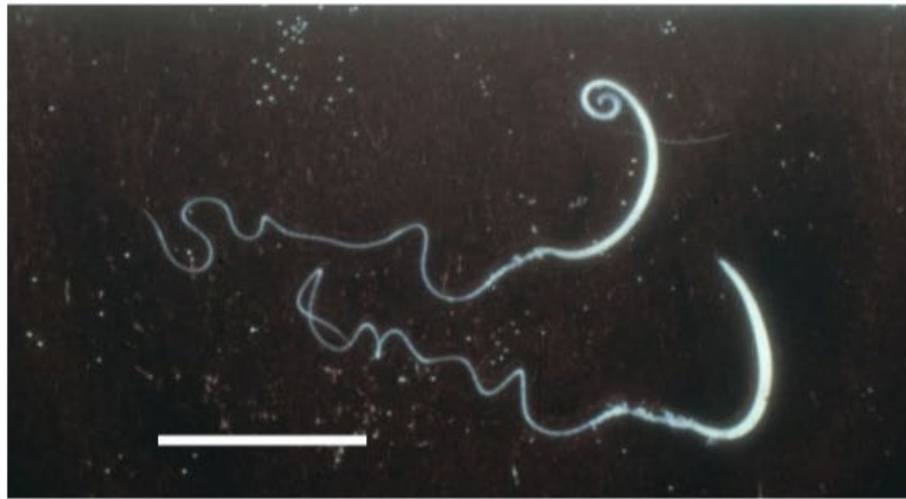
## Adult hookworms, small intestine, dog



Adult hookworms recovered post-mortem from the small intestine of a 10-week old puppy with severe anemia that died.

*Courtesy of Dr. Andrew Peregrine.*

# Whipworms – uncommon in cats



## Adult *Trichuris vulpis*, dog



*T. vulpis* recovered from the large intestine of a dog at postmortem examination. Bar = 1 cm.

*Courtesy of Dr. Andrew Peregrine.*



# Tapeworms



# Other Intestinal Conditions

- **Giardia**
  - Intestinal protozoal organism
  - Many infected animals will have no clinical signs at all.
  - Diarrhea in affected animals is usually mucoid, pale, soft, and has a strong odor.
- **Coccidiosis**
  - Very tiny (microscopic) parasites
  - Many infected animals will have no clinical signs at all.
  - Diarrhea may be bloody.

# Environment

# Thermoneutral Zone

- Temperature range in which an animal does not have to expend additional energy to maintain its body temperature
- ★ • Adult cat's normal body temperature is approximately 100.5 to 102.5 degrees Fahrenheit
- ★ • Adult cat's thermoneutral zone is ~65 to 95 degrees Fahrenheit

# Shelter

- Protect from elements
- Dry
- Large enough to allow at least 2 feet between water/food, sleeping area, and litter box
- Multiple levels
- Soft bedding
- Shade
- Adequate ventilation
- The cat's shelter and general husbandry should be such that it maintains the cat in an appropriate thermoneutral zone and normal body temperature.

# Behavior

- Generally, a solitary animal
- May or may not like human contact
- Enjoy having areas to hide/get to higher elevation
- Eat small meals multiple times per day
- Predatory animal (hunt small animals/rodents)
- Multiple cat households *may* require:
  - Separate food bowl for each cat
  - Separate litter box for each cat plus 1 additional box

# Hoarding

- Common with cats but can involve other species
- Frequently will be an older female
- Will sacrifice their own well-being to provide for the animals
- Soon become overwhelmed
- Commonly associated with mental issues
- Good to involve the local health department











# In General

- Good animal welfare provides animals:
  - Physical good health
  - Freedom from illness and injury
  - Proper growth
  - Natural environment
  - Ability to display normal behaviors
  - Free of fear, pain, hunger, thirst

# Questions

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