

# Pica and Coprophagia

## (Eating Non-food Items and Eating Feces)

### Basics

#### OVERVIEW

- Eating of non-food items (known as “pica”), including eating of feces of bowel movement (known as “coprophagia”)
- Coprophagia is not uncommon in dogs; it is rare in cats

#### SIGNALMENT/DESCRIPTION OF PET

##### Species

- Dogs and cats

##### Breed Predispositions

- Oriental breeds of cat, such as the Siamese, may be at greater risk of pica than other cat breeds

##### Mean Age and Range

- Pica occurs more often in puppies than in adult dogs
- Pica is most likely to begin during the first year of life in cats

#### SIGNS/OBSERVED CHANGES IN THE PET

- Eating of non-food items (for example, dogs—rocks, clothing, and feces; cats—fabrics and plastics)
- Bad breath (halitosis), if problem is coprophagia
- Damage to teeth if the dog eats hard objects
- Pale moist tissues of the body (mucous membranes) and weakness if the pet has a low red blood cell count (known as “anemia”), a contributing condition
- Poor body condition if signs are accompanied by abnormal digestion or absorption of food (known as “maldigestion” or “malabsorption,” respectively)
- Nervous system signs if behavior caused by neurological disease

#### CAUSES

##### Behavioral Causes

- Coprophagia is considered normal maternal behavior; the mother dog (bitch) or cat (queen) licks the area under the tail of the newborn puppy or kitten to stimulate elimination and then eats the feces; considered normal for puppies as exploratory behavior, possibly the high deoxycholic acid levels in feces contributes to nervous system development—not proven
- Dogs seek out cat feces because it is high in protein and therefore appealing; odor and taste may also be appealing



- Herbivore feces are appealing to dogs, apparently due to partially digested vegetable matter
- Dogs on highly restricted diets may have a voracious appetite, leading to coprophagia and pica
- Feces are appetizing to some dogs, so the behavior might be self-rewarding
- Dogs that have been punished for eliminating in the house may learn to eat their own feces in an apparent attempt to avoid punishment
- A form of nest cleaning if in a tightly restricted area
- Response to anxiety
- Compulsive behavior
- Attention-seeking behavior
- Stealing behavior

### **Medical Causes**

- Low red blood cell count (anemia)
- Poor nutrition (malnutrition) leading to excessive food intake (known as “polyphagia”)
- Diseases involving the endocrine system—excessive levels of thyroid hormone in the blood (known as “hyperthyroidism”); condition characterized by high levels of glucose (sugar) in the blood (condition known as “diabetes mellitus” or “sugar diabetes”); excessive levels of steroids produced by the adrenal glands (known as “hyperadrenocorticism” or “Cushing’s syndrome”)
- Abnormal digestion (maldigestion) or absorption of food (malabsorption) such as with low levels of digestive enzymes produced by the pancreas (known as “exocrine pancreatic insufficiency”)
- Inflammatory bowel disease
- Excessive number of bacteria in the small intestine (known as “small intestinal bacterial overgrowth”)
- Central nervous system disease
- Portosystemic shunt (condition of abnormal blood flow in the liver due to high blood pressure in the portal vein, the vein carrying blood from the digestive organs to the liver)
- Intestinal parasitism

### **Drug-Induced Causes**

- Administration of medications such as steroids, progestins, phenobarbital or benzodiazepines may lead to increased appetite and excessive eating (polyphagia)

## **RISK FACTORS**

- Early weaning of kittens has been suggested as a possible cause of sucking on and eating of fabrics
- Cats fed low-roughage diets and/or not allowed access to roughage sources (such as grass)
- Dogs not provided with an appropriately stimulating environment, adequate activity, or social interactions may be at risk for pica, coprophagy, or both
- Confinement of dogs in barren yards may predispose to coprophagia

# **Treatment**

## **HEALTH CARE**

- Varies depending on whether the cause is medical or behavioral
- Treat any underlying disease (such as hormonal problems, gastrointestinal disease, or disorders of the pancreas) and withdraw any drugs that could cause increased appetite and excessive eating (polyphagia)
- Correct any dietary deficiencies

### **Treatment of Eating of Non-food Items (Pica)**

- Prevent access to non-food items that are likely to be eaten
  - ♦ Confine pet away from interesting non-food items
  - ♦ Muzzle dogs; watch for signs of overheating in warm climates and when muzzle is worn for prolonged periods of time
  - ♦ “Booby traps” may be used to keep pet away from certain areas or items
- Change to a diet higher in fiber, offer cat grass and catnip for indoor cats
- Teach dog a “Drop it” or “Leave it” command, so owner can prevent consumption of inappropriate items

## **Treatment of Eating Feces of Bowel Movement (Coprophagia)**

- Prevent access to feces
  - ♦ Walk dog on leash and pick up feces immediately
  - ♦ Muzzle dogs; watch for signs of overheating in warm climates
  - ♦ Use head collar for increased ability to guide pet away from feces; reward for “turning away” after defecation
- Change the character of the feces by adding meat tenderizer to feed or changing feces texture—not proven to be effective
- Use a remote-activated citronella collar to distract the dog every time it tries to sniff or eat feces
  - ♦ This technique must be used every time the dog has access to feces in order for it to be effective
  - ♦ Dogs should be rewarded with a tasty treat for returning to owner on command
- Taste aversion can be taught by using a powerfully aversive substance (such as hot sauce or cayenne pepper)
  - ♦ All feces with which the dog may come in contact must be included for this technique to be effective
  - ♦ Dogs can learn to recognize the smell of the “aversive substance”—coated feces and avoid them, while looking for non-coated feces

## **ACTIVITY**

- Increased activity levels may help in the treatment and prevention of pica or coprophagia
- More regular, predictable schedules of interaction and exercise can decrease anxiety and may aid in the treatment of pica or coprophagia

## **DIET**

- Feed a good-quality, balanced diet
- Change to a diet higher in fiber; dietary changes may be helpful in some cases of coprophagia
- A more highly digestible diet or the addition of plant-based enzyme supplements has been successful in decreasing coprophagia (rarely)

## **Medications**

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- If the problem is a compulsive disorder or secondary to anxiety, administering psychologically active drugs, a tricyclic antidepressant (TCA), such as clomipramine, or a selective serotonin reuptake inhibitor (SSRI), such as fluoxetine, may be effective

## **Follow-Up Care**

### **PATIENT MONITORING**

- Monitor and record abnormal eating habits to determine if the pet's pica or coprophagia is decreasing
- Discuss progress in controlling abnormal eating habits with your pet's veterinarian in 1–2 weeks
- If dietary management changes did not markedly improve the problem, further diagnostic testing and/or medication may be needed

### **PREVENTIONS AND AVOIDANCE**

- Limit access to non-food items to prevent pet from eating them
- Careful supervision during housetraining may help to prevent puppy exploration of feces and reinforcement of coprophagia
- Administer monthly heartworm prevention that also prevents gastrointestinal parasites, according to your pet's veterinarian
- Find a safe substitute that the pet can eat
- Remove plastic and woolen material from the cat's environment
- Apply a pungent or bitter taste to objects, which may discourage consumption

## **POSSIBLE COMPLICATIONS**

- Blockage of the intestinal tract by a foreign body is the most common complication to pica in dogs and cats
- Gastrointestinal complications—foreign bodies, diarrhea, vomiting, bad breath (halitosis)

## **EXPECTED COURSE AND PROGNOSIS**

- Prognosis is guarded if the condition has been present for a long time or if the owner is unwilling to supervise the dog closely when it eliminates
- Prognosis improves if the owner is willing to supervise the dog and to follow treatment recommendations
- Realistic expectations must be understood; changing a behavior that has become a habit is very challenging

## **Key Points**

- Prevent access to non-food items or feces that may be eaten
- Increased activity levels may help in the treatment and prevention of pica or coprophagia
- More regular, predictable schedules of interaction and exercise can decrease anxiety and may aid in the treatment of pica or coprophagia
- Realistic expectations must be understood; changing a behavior that has become a habit is very challenging
- Coprophagia in most cases is normal behavior for dogs and is not harmful, unless the dog eats feces containing parasites or harmful bacteria/fungi
- Avoid the use of punishment for pica or coprophagy due to the risk of increasing anxiety and possibly worsening the behavior