

Veterinary KINsights

The Unique Feline 3.0 From Finicky to Famine? Clinical Assessment of Food Intake

Key Points

- Changes in food intake may be the first clinical sign of illness
- Hyporexia, dysrexia, and anorexia are terms used to describe alterations in eating behavior
- A variety of factors influence appetite and food consumption
- Food aversion may be a significant cause of anorexia in cats
- Management requires a multi-modal approach

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Introduction

Altered eating behavior, appetite, and changes in food consumption may be the first clinical signs of illness recognized by a cat owner. This may also be the primary reason an owner seeks veterinary care. Reduced food intake may lead to weight loss, loss of lean muscle mass, changes in the gastrointestinal tract flora, increased intestinal mucosal permeability, and compromised enterocyte health.^{1,2} Poor wound healing, decreased immune function and an increased risk for hepatic lipidosis are other potential consequences.^{3,4} Administration of oral medications may be more difficult in a cat that is not eating well¹, making treatment of an underlying disease condition more challenging for pet owners. Finally, food intake is an important indicator of quality of life to many pet owners^{5,6}, and prolonged periods of decreased food intake or complete lack of appetite may be a critical factor in an owner's decision to euthanize a pet.

Definition of Terms

Hyporexia is a reduction in food intake, which has been further defined as “a quantitative, objective term that describes inadequate food intake to maintain body weight (if at ideal weight) or inadequate food intake to gain weight (if underweight).”⁷ Anorexia is defined as a “complete absence of voluntary food intake that suggests a complete loss of appetite.”⁷ Altered food preferences or “cyclical” appetite, is known as dysrexia.⁸ Food intake may be normal or decreased in a cat with dysrexia; however, these animals are at risk of inadequate food intake.⁷

Factors Controlling Appetite and Food Intake

Hormonal, neurologic, environmental, dietary, pharmacological, physical and psychological factors play a role in controlling food intake in cats. A detailed discussion of the wide variety of influences on food consumption is beyond the scope of this article. The following are a few examples:

The hypothalamus is a major area of the brain involved in mediating changes in food intake⁹, with hormones, including cholecystokinin, insulin and leptin, playing an important role.¹⁰ The balance between orexigenic and anorexigenic signals may shift towards reduced food intake during times of illness.⁷ Systemic increases in cytokines such as interleukin-6, tumor necrosis factor α , and prostaglandin E₂ can also play a role in a cat's desire to eat. Cytokine levels can increase with chronic disease, ultimately leading to reduced appetite.¹¹

Hyporexia, anorexia and dysrexia are clinical signs of a wide range of feline diseases. Any disease state resulting in acute or chronic pain, nausea or vomiting may alter food consumption. Physical factors including dental disease, stomatitis, osteoarthritis, or other conditions causing pain upon prehension, chewing or swallowing of food may contribute to reduced food intake.^{7,12,13} Diseases affecting olfaction must also be considered.^{7,13} Medications, such as metronidazole, doxycycline and other antibiotics, can cause signs of nausea and decrease food intake, and opioids can cause disturbances in gastrointestinal motility.^{1,7}

Multiple environmental triggers influence food intake and any cause of stress can diminish food consumption. Examples include hospitalization, boarding, loss of an animal or human companion, introduction of a new pet to the household and excessive handling.¹³ The size, depth and material composition of the food bowl should be considered, as well as noises and strange or strong odors.¹ Difficulty accessing food bowls should also be assessed.¹²

Finally, physical form, odor and taste impact food consumption in cats. Food texture, or "mouth feel", has a significant influence on dietary preference.¹³ Flavor and texture preferences can be influenced by early experience and affect a cat's preferences throughout life.¹⁴ Food texture applies not only to canned foods (e.g., pate or chunks), but dry kibble as well.⁷ Food temperatures may also impact food acceptance.^{14,15}

Food Aversion in Cats

Food aversion may be a significant cause of anorexia in cats and can continue well past resolution of the underlying disease process. Learned food aversion may develop when feeding is associated with a negative experience, whether physical, emotional or physiologic.¹⁴ Pain, discomfort, vomiting, or nausea (whether due to the disease condition or medical treatment) may be connected to the act of eating or simply the sight or scent of food^{6,13} and lead to a complete loss of appetite. Recognition of nausea can be difficult in feline patients. Signs to look for include hypersalivation, repeated swallowing, lip smacking or turning away from food.^{1,6}

Management Strategies

Managing the hyporexic or anorexic feline patient requires a multi-modal approach that takes into consideration all potential contributing factors. In addition to managing pain, nausea, vomiting and

any underlying medical condition(s), strategies that may help increase the feline patient's desire to eat include:

Reduce environmental stresses by providing a hiding place, hanging a towel over the cat's cage, and addressing noise and temperature.¹⁶ Mitigate fear and anxiety in the hospitalized patient by assigning feeding responsibilities to a staff member who is not also responsible for administering medications, injections, or restraining the cat.^{1,17} Do not schedule medical treatments to be performed at feeding time.⁷

Feed small amounts of fresh food at one time, so as not to overwhelm the cat's senses¹⁸ and offer multiple meals throughout the day to better accommodate the cat's natural feeding behavior.¹⁴ Cats tend to prefer that moist foods be warmed and offered at, or near, body temperature.^{14,15} Warmed foods tend to have an enhanced aroma. If this appears to cause nausea, offer dry food or other foods with less odor.¹⁸ Fat, protein and moisture also tend to increase palatability.¹³ Offer wet food with different textures and dry food with different kibble shapes.⁷

Place food and water bowls at floor level and elevate slightly for those cats with osteoarthritis, so jumping and bending are not needed for easy access.¹² If bowls are placed above floor level, ramps may be necessary to provide access.¹⁹ Select feeding bowls that are wide and shallow, so the sides of the bowl do not touch the cat's whiskers.^{15,16} Some materials tend to retain odors, so consider changing the feeding bowl.⁷

Examine the patient's list of medications and adjust if indicated.^{1,7} Avoid changing diets and do not force feed or offer a therapeutic diet while the cat is hospitalized, in acute illness, vomiting or nauseous, especially if a therapeutic diet will be an important part of disease management. Do not hide medications in the therapeutic or primary diet.¹⁹ Wait until the patient is eating consistently or ready to be sent home with its owners before gradually introducing a therapeutic or other appropriate diet.^{1,6,7}

Summary

Management of hyporexia, dysrexia and anorexia in the cat can be challenging considering the many contributing factors. Adequate caloric intake and appropriate nutrient consumption are important considerations in improving patient outcomes. Treatment of pain, nausea and vomiting is critical in cats with reduced food intake. Taking steps necessary to alleviate fear and stress, avoid food aversion, diagnose and manage underlying disease conditions, and accommodate a cat's feeding behaviors and food preferences is also paramount to success.

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