



PATIENT SUPPORT

Patient support is integral to improving quality of life and reducing the impact of pain. Certain support may be beneficial in reducing pain.

Nutrition

- Diet Selection
  - Palatability
  - Nutritional needs specific to the medical condition(s)
  - Caloric density and density of other nutrients may be important considerations
  - Patient preferences may exceed specific patient needs in order to ensure adequate intake
- Intake Amounts
  - To determine the resting energy requirements (RER) for feline patients, calculate RER using the following formula:  $RER = 70 \times (b.w. \text{ in kg})^{0.75}$
  - For further details on nutritional calculations, access the 'Tear 'n Share' supplement of AAFP's *The Feline Practitioner* magazine (Fall 2022 Issue), available at the end of this section and on page 40. It provides a helpful guide for converting nutrient percentages, calculating RER, and estimating the range of energy requirements by a healthy cat's weight
- Encouraging Food Intake
  - Enhancing smell (i.e., warming food)
  - Consider patient preferences, including textures (e.g., dry, canned, paté, chunks in gravy, etc), flavors, temperature, and freshness
  - Identify and treat inappetence early with appetite stimulants such as mirtazapine (oral, transdermal) and capromorelin (oral)
  - Identify and treat underlying nausea including pharmacologic and non-pharmacologic therapies
  - In multicat households, feed cats separate from each other, provide a visual barrier, and ensure a minimum distance of six feet apart

**Tear 'N Share**  
Nutritional Calculations at a Glance

**Converting the % Nutrient to a g/100 kcal Basis**  
Nutritional profiles between diets can be reliably compared on a caloric basis using the typical analysis (% nutrient) and caloric density (kcal/kg) of the diet and the following calculations:  
The equation to do this is:  $1,000 \times (\text{nutrient \%} \times \text{kcal/kg}) = \text{g}/100 \text{ kcal}$   
Example: For a dry cat food with minimum protein of 40% (as fed) and a caloric density of 4,000 kcal/kg, what is the protein concentration on an energy basis (i.e., g/100 kcal)?  
Equation:  $1,000 \times 40 \times 4,000 = 160 \text{ g}/100 \text{ kcal}$  (compared with an AAFCO minimum of 6.5 g/100 kcal)  
If you prefer to review the nutrient on a mg per 100 kcal basis, you need to multiply this by 1,000 again.  
Example: For a canned cat food with a phosphorus level of 0.3% and a caloric density of 1,000 kcal/kg  
Equation:  $1,000 \times 0.3 \times 1,000 = 300 \text{ mg}/100 \text{ kcal}$

**Resting Energy Requirements – Calculation**  
Resting energy requirement (RER) =  $70 \times \text{body weight (BW)}^{0.75}$   
Maintenance energy requirement (MER) for growth:  $2.0\text{--}2.5 \times \text{RER}$   
Maintenance energy requirement (MER) for adult maintenance:  $1.2 \times \text{RER}$   
It is imperative to consider each individual cat and to adjust the caloric intake based on the cat's BCS.

**Starting Estimates: Range of Energy Requirements by a Healthy Cat's Weight**

Body weight (lb)	Body weight (kg)	MER (2.5 x RER) kJ/day	MER (2.0 x RER) Post-op/acute	MER (1.4 x RER) Post-op/acute	MER (1.2 x RER) Adult Maintenance	RER Adult Maintenance	MER (0.8 x RER) Overweight
1	0.5	104					
2	1	175					
3	1.5	207	140				
4	2	244	235	165	141		118
6	2.5	294	278	195	167		139
7	3		319	223	191		160
8	3.5			251	215		179
9	4			277	238		198
10	4.5			303	260		216
11	5			328	281		234
12	5.5					251	201
15	7					308	255

This table represents starting estimates. Always adjust a cat's caloric intake by analysis of BCS/BCG, what they are eating, weight, breed, and health/illness goals. These estimates are for healthy cats that have a healthy body weight. Cats with a higher BCS (i.e., 6-9/9) need a formal nutrition plan closely monitored by their veterinarian.

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- Offer small, frequent meals throughout the day to mimic normal feline feeding behaviors and improve intake. This is especially important in hospice and palliative care patients, as stomach capacity may be decreased
- A patient may benefit from encouragement and attention from caregiver to promote food intake; flavor enhancers like lickable treats, tuna juice, or broth (without onions or onion powder) may promote appetite. The goal is to enhance flavor without diluting caloric or nutrient intake
- If patients are consuming insufficient nutrition to meet their needs, feeding tubes are an important consideration. Please refer to the [2022 ISFM Consensus Guidelines on Management of the Inappetent Hospitalized Cat](#)

### More Information:

- [2013 AAFP/ISFM Environmental Needs Guidelines](#)
  - [2018 Feline Feeding Programs Consensus Statement](#)
  - [2022 ISFM Management of the Inappetent Hospitalised Cat Guidelines](#)
  - [AAFP Client Brochure: How to Feed a Cat](#)
- Nausea and Vomiting
    - Clinical signs of nausea do not consistently include vomiting
    - Cats experiencing nausea may be inappetent, may be 'finicky eaters,' and/or may lick their lips and turn away when presented with food
    - Cats vomiting hairballs more than once per week likely have underlying nausea unrelated to the ingestion of hair
    - Treatment strategies - maropitant 1–2 mg/kg PO, SC, IV q24h; ondansetron 0.5–1 mg/kg PO, SC, IM, IV (slowly), q8h
  - Hydration
    - Water intake should be approximately 40–50 mL/kg/d
    - Improve water intake with canned food, veterinary hydration supplements, preferred water vessels, fountains or dripping faucets, and other strategies
    - Proper hydration (euhydration) is important for cats with chronic kidney disease if considering NSAIDs, as well as IRIS stage, patient status, and individual benefits of NSAID use



## Pharmacy

- Avoid Polypharmacy
  - Where many medications are needed or considered, choose those that are most likely to benefit the patient and have known high level of evidence-based medicine to support that benefit
  - Increasing numbers of medications, particularly oral medications, can increase the difficulty with medicating and harm the human-cat relationship
- Palatability
  - Choose products designed with cats in mind
  - As cats are notorious for food aversion in association with distasteful medications, it is recommended to use a different food source if attempting to hide medication in food so as not to compromise the patient's regular eating habits, particularly when using therapeutic foods
- Oral Administration
  - Do not underestimate the caregiver burden of oral administration, nor the potential to disrupt the cat-caregiver bond
  - Where licensed veterinary products do not exist, or administration of the product has been difficult in a particular patient, consider other options for oral administration including smaller tablets, capsules, flavored chews, melting tablets, added flavoring, powders, liquids, and combining medications in empty gel capsules as it might best suit the patient preferences and the medication in question
  - Unless ingested in a pill treat that can be molded to conceal medications or directly with food, always follow medication with high-value/tasty treats, a favorite food, or a meal. Otherwise, 1–3 mL of water may need to be syringed into the cat's mouth to enhance swallowing and reduce esophageal transit time
- Options of Parenteral Administration
  - Subcutaneous options may be available and be easier for the caregiver to administer. Example: injectable steroids in lieu of oral tablets
  - Transdermal medications may be available by compounding, but that does not mean the product will be absorbed in quantities necessary to be efficacious. Review relevant literature on appropriately studied drugs that can be absorbed and are efficacious when administered transdermally

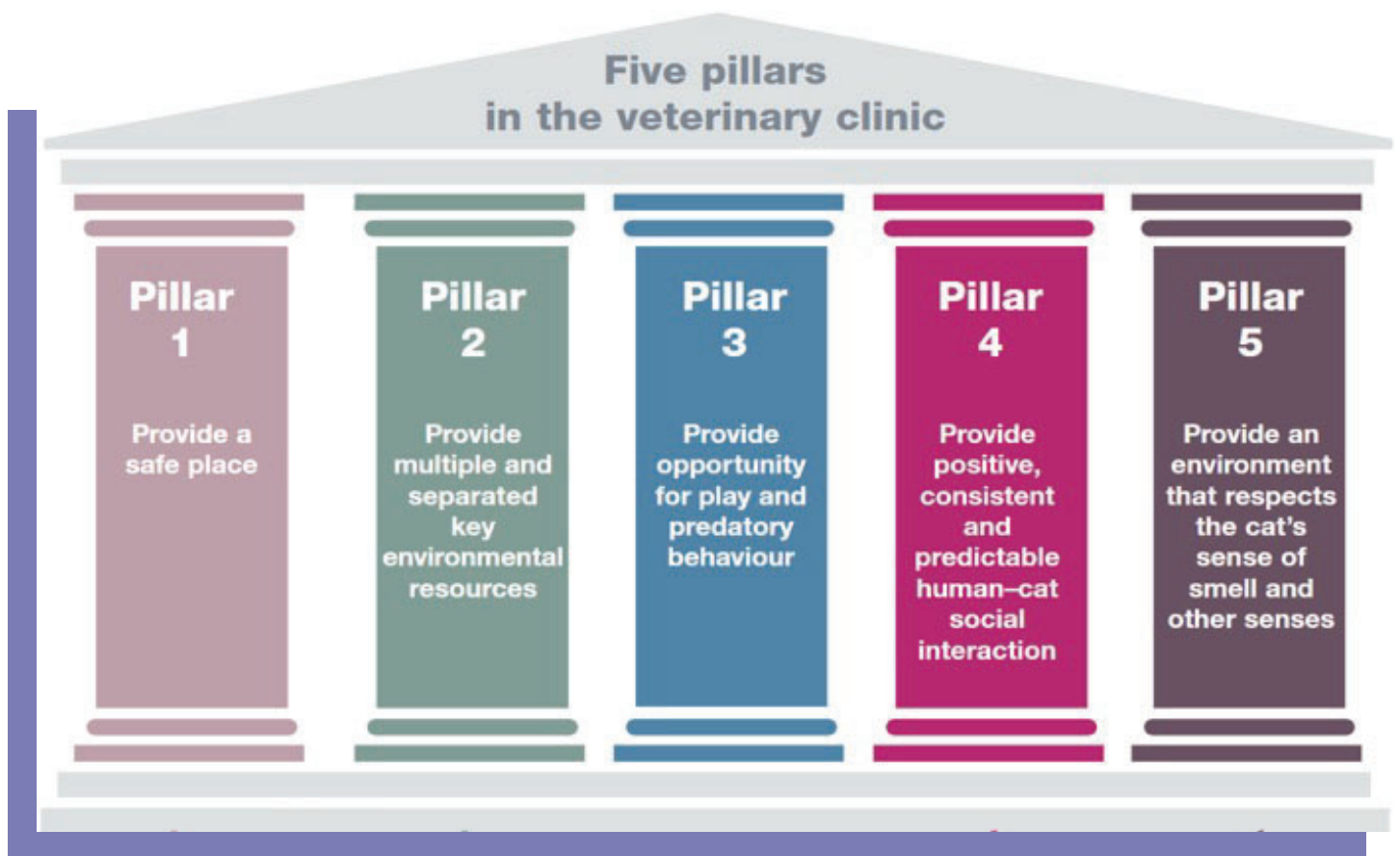


### Links for Caregivers:

- How to Feed a Cat – Caregiver [Website and Brochure](#)
- [How to Feed a Cat](#) – [Brochure](#) for Clients and [Printable](#)
- How to Give your Cat a Tablet – [Video](#)
- Senior Cats Have Special Needs – Caregiver [Website and Brochure](#)
- Senior Cats Have Special Needs – [Brochure](#) for Clients and [Printable](#)
- Tips for Medicating Your Cat – [Flyer](#)

### Environment

- Five Pillars of a Healthy Feline Environment
  - Provide guidance to caregivers in order to meet patient needs



Reprinted with permission from the AAFP. Taylor, et al. 2023 ISFM/AAFP Cat Friendly Veterinary Environment Guidelines, Journal of Feline Medicine and Surgery. Available at [catvets.com/environment](https://catvets.com/environment).



- Adapt the Home to Patient Needs
  - Provide home adaptations to accommodate the patient
  - Examples:

- Easy-to-access litter boxes (i.e., lower-walled or low-entry into box and easy-to-access location of boxes so they are where the cat spends the most time; ideally a minimum of one litter box on each floor of the house)

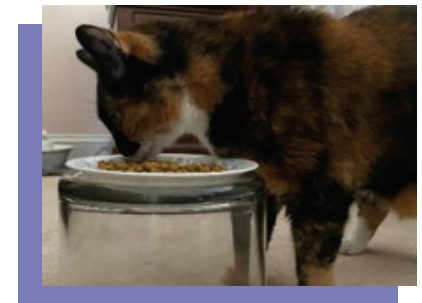


- Stairs/ramps to bed and/or resting places, and favorite perches such as windowsills, etc
- Preferences for scratching posts and other scratch-appropriate surfaces may change, including the location, number of levels on the post, and surface covering (e.g., many senior cats prefer softer scratching surfaces)
- Water sources—follow the 'one per cat, plus one' recommendation and distribute throughout the home. Avoid placing water beside food or litter to reduce risk of contaminating the water
- Night lights for improved vision in the aging and/or chronically ill cat

- Cats prefer an ambient temperature of 30–38°C (86–100°F); consider safe heated (non-electrical, reflective pad, self-warming) pet beds covered with blankets to prevent burn or injury

- Preference for food serving—plates, dishes, depth of dish, raised dishes, etc Consider raising the dish to alleviate the cat having to bend over to eat, which could cause pain

- Preferences for water supply—depth and width of water dishes (e.g., some cats prefer deep, wide water bowls), material water dish is made from, water fountains, etc



- Consider additional special needs of cats with cognitive decline and/or cognitive dysfunction. See the [AAFP Senior Care Guidelines](#) for more information



- Reducing Stress/Stressors
  - Ensuring a 'safe place' to hide is accessible (the ability to 'get away' may be compromised in painful cats)
  - Continue routines for consistency and increased sense of safety and control for the cat
  - Review the cat's interactions with human members of household
  - Review the number of cats in household, evaluate intercat relationships, and identify and address intercat tensions; ask caregivers to watch the [Friend or Foe](#) video to evaluate these relationships further
- Gentling
  - Gentling interactions with a cat may include long body strokes, brief head patting, soft speaking, and resting a hand lightly on the cat
- Activities of Daily Living
  - Routines are important
  - Encourage caregivers to try and keep everything consistent: feeding schedule, cleaning, human/pet interactions, administration of medications, grooming, etc

The [2023 AAFP/IAAHPC Feline Hospice and Palliative Care Guidelines](#) provide in-depth recommendations and examples for modifications within each of the five pillars. Many of the details can apply to cats in chronic pain.





# Tear 'N Share

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**Equation:**  $1,000 \times (40 \div 4,000) = 10.0 \text{ g/100 kcal}$  (compared with an AAFCO minimum of 6.5 g/100 kcal)

**Equation:**  $1,000 \times (0.3 \div 1,000) = 0.3 \text{ g/100 kcal} \times 1,000 = 300 \text{ mg/100 kcal}$

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11	5			328	281	234	187
12	5.5					251	201
13	6					268	215

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