

# Step by Step: Feeding the Pet with Cancer

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**R**ead **Practical Approaches to Feeding the Cancer Patient**, page 51, for further information on feeding dogs and cats with cancer. Visit [tvjournal.com/resources.asp#resources](http://tvjournal.com/resources.asp#resources) for the table, **Feeding Guidelines Based on Nutritional Status for Dogs & Cats with Cancer**, which provides detailed information on:

- Clinical assessment (Step 1)
- Specific feeding guidelines (Steps 2–4, 6, 7)
- Suggested feeding approaches (Step 5)
- Practical recommendations (Step 7).

**1. Assess the pet** to determine nutritional status: Well-nourished, borderline malnourished, or significantly malnourished.

**2. Determine current caloric intake and daily calorie needs** of pet based on nutritional status:

- **Assess current daily caloric intake:** Using the reported caloric density (kcal/can, kcal/8-ounce cup, kcal/gram of diet) of the commercial diet being offered, calculate the actual daily caloric intake based on amount (cans, cups, grams) of diet consumed each day.
- **Calculate resting energy requirement (RER)** based on pet's current or optimal body weight (BW):

$$\text{RER (kcal ME/day)} = (\text{BWkg})^{0.75} \times 70$$

- **Calculate daily energy requirement (DER)**, a mathematical equation with variables based on nutritional status):

DER (kcal ME/day) = RER × predetermined numerical factor (Table).

- **Compare actual daily caloric intake to daily calories required (DER).**

**3. Determine dietary fat and protein levels** (low, moderate, high; see Table 4, page 54) based on current or planned treatment regime and comorbidities, such as renal, hepatic, or pancreatic disease.

**4. Determine required supplemental nutrients** based on anticancer therapy.

- **No treatment:** Consider immediate dietary supplementation of omega-3 fatty acids and antioxidants (AOX).
- **Surgery:** If intestinal surgery, consider immediate glutamine supplementation; following any surgery, delay omega-3 fatty acid supplementation for 3 to 4 days.<sup>1,2</sup>
- **Chemotherapy:** Prior to therapy, consider probiotic supplementation; during therapy, appetite stimulants and omega-3 fatty acid supplementation. Do not supplement with AOX until chemotherapy regime is completed.
- **Radiation:** Same as chemotherapy.

**5. Identify appropriate feeding method** to ensure adequate RER/DER intake:

- Voluntary only
- Voluntary + enteric assisted
- Enteric assisted only
- Parenteral ± enteric assisted.

**6. Choose appropriate diet** based on appropriate nutrient levels, supplemental nutrients, and feeding method.

**7. Discuss feeding plan** with pet caregiver:

- Identify food choices or options.
- Calculate daily feeding dose based on daily caloric goal (RER to DER at current or optimal BW).
- Determine feeding frequency.
- Set monitoring parameters and follow-up schedule.

AOX = antioxidants; BCS = body condition score; BW = body weight; BWkg = body weight in kilograms; DER = daily energy requirement; ME = metabolizable energy; RER = resting energy requirement

#### References

1. Mooney MA, Vaughn DM, Reinhart GA, et al. Evaluation of the effects of omega-3 fatty acid-containing diets on the inflammatory stage of wound healing in dogs. *Am J Vet Res* 1998; 59(7):859-863.
2. Harris WS. Expert opinion: Omega-3 fatty acids and bleeding—cause for concern? *Am J Cardiol* 2007; 99:44C-46C.



TABLE. Predetermined Numerical Factors for Calculating DER

NUTRITIONAL STATUS	NUMERICAL FACTOR <sup>a</sup>	
	Canine	Feline
<b>Well Nourished</b>		
BCS 4–6 (current BW) <sup>b</sup>	1.6	1.2
BCS > 6 (ideal BW) <sup>c</sup>	1–1.2	0.8–1
<b>Borderline Malnourished</b>	1.6–2.5	1.2–2
<b>Significantly Malnourished</b>	1.6–3	1.3–2.5

a. Numerical factor varies depending on nutritional status and signalment (adult life stage)

b. Calculate based on current BW

c. Calculate based on ideal BW