



# Feeding Guidelines for Dogs & Cats with Cancer Based on Nutrition Status

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Read **Practical Approaches to Feeding the Cancer Patient** in the July/August 2014 issue of *Today's Veterinary Practice*.

STATUS	CLINICAL CRITERIA	SUGGESTED FEEDING APPROACH	PRACTICAL RECOMMENDATIONS	SPECIFIC FEEDING GUIDELINES
<b>Well Nourished</b>	<ul style="list-style-type: none"> <li>• <b>Consistent intake</b> of daily energy needs (DER)</li> <li>• <b>Body condition score (BCS):</b> Optimal to overweight/obese</li> <li>• <b>Body weight (BW):</b> Stable</li> <li>• <b>Muscle mass score:</b> 2 to 3</li> <li>• <b>Albumin:</b> Normal</li> <li>• <b>Nutrient losses</b> (ie, diarrhea, vomiting/regurgitation, urinary): None</li> </ul>	Voluntary intake (VI)	<p><b>Optimal BW &amp; BCS</b></p> <ul style="list-style-type: none"> <li>• <b>Continue</b> current diet intake to maintain optimal BCS.</li> <li>• <b>Avoid</b> offering food containing noxious, harmful ingredients.</li> <li>• <b>Provide</b> fresh water at all times.</li> </ul> <p><b>Overweight/Obese (BCS &gt; 6/9)</b></p> <ul style="list-style-type: none"> <li>• <b>Target</b> daily calorie intake for BCS 5/9 to 6/9.</li> </ul>	<ol style="list-style-type: none"> <li>1. <b>Calculate RER<sup>a</sup></b> at current or ideal BW.</li> <li>2. <b>Calculate DER.<sup>b</sup></b></li> <li>3. <b>Choose</b> commercial moist or dry diets, or cooked homemade diet, with low CHO and increased fat, EPA/DHA, and digestibility. <i>For overweight/obese pets</i>, chose restricted fat, higher protein diets.</li> <li>4. <b>Avoid</b> supplemental AOX during anti-cancer therapy.</li> <li>5. <b>Feed</b> 2 to 3 times daily.</li> <li>6. <b>Assess</b> regularly.</li> </ol>
<b>Borderline Malnourished</b>	<ul style="list-style-type: none"> <li>• <b>Inconsistent intake</b> of daily energy needs (RER to DER)</li> <li>• <b>BCS:</b> Variable</li> <li>• <b>BW:</b> Weight loss of &lt; 10%</li> <li>• <b>Muscle mass score:</b> 1 to 2</li> <li>• <b>Albumin:</b> Normal to mild hypoalbuminemia</li> <li>• <b>Nutrient losses:</b> Moderate, but controlled</li> </ul>	Voluntary intake and/or assisted feeding (AF) <sup>c</sup>	<ul style="list-style-type: none"> <li>• <b>Ensure</b> pet's DER is met and address specific nutrient concerns.</li> <li>• <b>Identify</b> and feed appropriate diet amount.</li> <li>• <b>Monitor</b> daily intake.</li> <li>• <b>Use</b> hand or enteric tube feeding.<sup>d</sup> When using assisted feeding, minimize risk of aspiration by elevating the head and upper body for 15 to 30 minutes post feeding.</li> </ul>	<ol style="list-style-type: none"> <li>1. <b>Calculate RER</b> at optimal BW.</li> <li>2. <b>Calculate DER.<sup>b</sup></b></li> <li>3. <b>Choose</b> diet based on guidelines above; human liquid diets can also be considered.<sup>e</sup></li> <li>4. <b>Feed</b> 2 to 4 times daily; combine VI and AF as enteric tube feeding when needed to ensure DER intake; AF as bolus feeding.</li> <li>5. <b>Assess</b> daily or weekly.</li> </ol>
<b>Significantly Malnourished</b>	<ul style="list-style-type: none"> <li>• <b>Daily energy intake</b> &lt; 66% RER</li> <li>• <b>BCS:</b> Poor (&lt; 2.5/5 or 3/9)</li> <li>• <b>BW:</b> Undesired/uncontrolled weight loss &gt; 10%</li> <li>• <b>Muscle mass score:</b> 0 to 2</li> <li>• <b>Albumin:</b> Moderate to severe hypoalbuminemia</li> <li>• <b>Nutrient losses:</b> Ongoing, uncontrolled</li> </ul>	Assisted feeding	<ul style="list-style-type: none"> <li>• <b>Target</b> the pet's daily RER to DER intake.</li> <li>• <b>Feed</b> by hand, enteric tube, or parenteral nutrition (PN).<sup>f</sup></li> </ul>	<ol style="list-style-type: none"> <li>1. <b>Calculate RER</b> at optimal BW for <i>in hospital</i> and <i>at home</i> feeding.</li> <li>2. <b>Calculate DER.<sup>b</sup></b></li> <li>3. <b>Choose</b> diet based on guidelines above.</li> <li>4. <b>Feed</b> 3 to 6 times daily; combine VI and AF when needed to ensure DER intake; AF as bolus or constant rate infusion feeding; utilize PN alone or in combination with enteric tube feeding.</li> <li>5. <b>Assess</b> daily.</li> </ol>

a. RER = resting energy (calorie) requirement derived as:

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

b. DER for well-nourished pet = daily energy (calorie) requirement, derived from a mathematical calculation:

$$DER \text{ (kcal ME/day)} = RER \times \text{predetermined numerical factor}$$

- **Optimal BW** – Dogs: DER = RER × 1.6; Cats: DER = RER × 1.2
- **Overweight/obese BW** – Dogs: DER = RER × (1–1.2); Cats: DER = RER × (0.8–1)
- **Borderline malnourished** – Dogs: DER = RER × (1.6–2.5); Cats: DER = RER × (1.2–2)
- **Severely malnourished** – Dogs: DER = RER × (1.6–3); Cats: DER = RER × (1.3–2.5)

c. Assisted feeding includes hand feeding, enteric feeding tube, or parenteral (IV) feeding

d. Enteric tube feeding options include: Nasoesophageal (NE), esophagostomy (E), gastrostomy (G), or jejunostomy feeding tubes; NE, E, and G tube feeding can be included in home care.

e. Human liquid diets are not ideal for cats; if fed for > 24 H, supplementation with arginine, taurine, and arachidonic acid is required.

f. Parenteral feeding is most commonly performed via a central or peripheral venous catheter and requires hospitalization and close monitoring.

AOX = antioxidants; CHO = carbohydrate; DHA = docosahexaenoic acid; EPA = eicosapentaenoic acid