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.

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| Well Nourished       | • Consistent intake of daily energy needs (DER)                                  | Voluntary intake (VI)                  | Optimal BW & BCS                                                | 1. Calculate RER\(^{a}\) at current or ideal BW.  
2. Calculate DER\(^{b}\).  
3. Choose commercial moist or dry diets, or cooked homemade diet, with low CHO and increased fat, EPA/DHA, and digestibility.  
4. Avoid supplemental AOX pets, chose restricted fat, higher protein diets.  
5. Feed 2 to 3 times daily.  
6. Assess regularly. |
|                      | • Body condition score (BCS): Optimal to overweight/obese                         |                                         |                                                                  |                             |
|                      | • Body weight (BW): Stable                                                        |                                         |                                                                  |                             |
|                      | • Muscle mass score: 2 to 3                                                        |                                         |                                                                  |                             |
|                      | • Albumin: Normal                                                                 |                                         |                                                                  |                             |
|                      | • Nutrient losses (ie, diarrhea, vomiting/regurgitation, urinary): None            |                                         |                                                                  |                             |
| Borderline Malnourished | • Inconsistent intake of daily energy needs (RER to DER)                          | Voluntary intake and/or assisted feeding (AF)\(^{c}\) | Ensure pet’s DER is met and address specific nutrient concerns.  
1. Calculate RER at optimal BW.  
2. Calculate DER.  
3. Choose diet based on guidelines above; human liquid diets can also be considered.  
4. Feed 2 to 4 times daily; combine VI and AF as enteral tube feeding when needed to ensure DER intake; AF as bolus feeding.  
5. Assess daily or weekly. |
|                      | • BCS: Variable                                                                   |                                         |                                                                  |                             |
|                      | • BW: Weight loss of < 10%                                                        |                                         |                                                                  |                             |
|                      | • Muscle mass score: 1 to 2                                                        |                                         |                                                                  |                             |
|                      | • Albumin: Normal                                                                 |                                         |                                                                  |                             |
|                      | • Nutrient losses: Moderate, but controlled                                        |                                         |                                                                  |                             |
| Significantly Malnourished | • Daily energy intake < 66% RER                                                   | Assisted feeding                       | Target the pet’s daily RER to DER intake.                      | 1. Calculate RER at optimal BW for in hospital and at home feeding.  
2. Calculate DER.  
3. Choose diet based on guidelines above.  
4. Feed 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 enteral tube feeding.  
5. Assess daily. |
|                      | • BCS: Poor (< 2.5/5 or 3/9)                                                      |                                         |                                                                  |                             |
|                      | • BW: Undesired/uncontrolled weight loss > 10%                                    |                                         |                                                                  |                             |
|                      | • Muscle mass score: 0 to 2                                                        |                                         |                                                                  |                             |
|                      | • Albumin: Moderate to severe hypoalbuminemia                                     |                                         |                                                                  |                             |
|                      | • Nutrient losses: Ongoing, uncontrolled                                          |                                         |                                                                  |                             |

a. **RER** = resting energy (calorie) requirement derived as:
   \[ \text{RER (kcal ME/day)} = (\text{BW}_{\text{kg}})^{0.75} \times 70 \]

b. **DER** for well-nourished pet = daily energy (calorie) requirement, derived from a mathematical calculation:
   \[ \text{DER (kcal ME/day)} = \text{RER} \times \text{predetermined numerical factor} \]
   - **Optimal BW** = Dogs: DER = RER × (1.1–1.2); Cats: DER = RER × (0.8–1)
   - **Overweight/obese BW** = Dogs: DER = RER × (1.1–1.2); Cats: DER = RER × (0.8–1)
   - **Borderline malnourished** = Dogs: DER = RER × (1.1–1.2); Cats: DER = RER × (1.1–1.2)
   - **Severely malnourished** = Dogs: DER = RER × (1.1–1.2); Cats: DER = RER × (1.1–1.2)

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

d. Enteric tube feeding options include: Nissene, esophagogastroduodenal (E), gastrostomy (G), or jejunoostomy 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

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**Peer reviewed**

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