

Appendix 6: Tube Feeding Instructions

Calculate daily kcals needed for dogs and cats:

Linear formula can be used for animals larger than 2 kg:

$$\text{RER (kcal/day)} = [(\text{BW}_{\text{kg}} \times 30) + 70]$$

Allometric formula can be applied to dogs and cats of all weights:

$$\text{RER (kcal/day)} = 70 (\text{BW}_{\text{kg}})^{0.75}$$

RER is multiplied by 1-1.5 in dogs, and 1-1.2 in cats, to allow for increased nutritional demands of illness, stress and healing. The end result is IER (Illness Energy Requirement).

Rough estimate is:

60-80 kcal/kg/day for tiny pets (less than 5 pounds)

45-60 kcal/kg/day for small dogs and cats (5-20 pounds)

40-55 kcal/kg/day for medium dogs (20-50 pounds)

35-50 kcal/kg/day for large dogs (50-100 lbs)

30-45 kcal/kg/day for giant dogs (>100 pounds)

IER should be adjusted according to body condition, and comparing weight loss or gain to target weight.

Simple feeding plan for cats:

2 cans a/d feeds the average cat for a day. 2 cans a/d + 50 cc water will make food thin enough to pass through esophagostomy and gastrostomy tubes easily, and will provide mild overhydration for the average cat.

Tube Feeding Instructions for NE-tubes, E-tubes and G-tubes:

1. Aspirate gastrostomy tube to see if there is a significant amount of fluid in the stomach. If more than 10cc is aspirated, put aspirated fluid back, flush tube with 5-10 cc water followed by air to clear the tube, and feed later. No aspiration is necessary for nasosophageal and esophagostomy tubes.
2. If fluid remaining in the stomach at feeding time is a repeating problem, consider adding a prokinetic (metoclopramide or cisapride) to the treatment regimen.
3. Flush tube with 3-10 ml water before feeding. Larger size tubes need more water. It is best to test a tube of similar size to see how much fluid it holds, and use at least that much volume of fluid to flush.
4. Store food in the refrigerator, but warm food to body temperature before feeding, and feed slowly. Warm food in warm water bath, or in microwave. If using microwave, be very careful to stir well, and do no overheat. If pet begins to lick lips, salivate, or gag, slow or stop the feeding.
5. Follow feeding with 5-10 cc water, then just enough air to clear the tube (3-5 cc).
6. If tube becomes clogged, try injecting tube with Coca Cola and letting sit for 30-60 minutes. If still clogged, take x-ray to see if tube is kinked.
7. If regurgitation is a problem, try elevating the front legs during feeding and for at least 10 minutes after.
8. If vomiting is a problem, give anti-emetic by injection of by tube 30 minutes prior to feeding.
9. If antiemetics do not control vomiting, try CRI feeding.

10. When working up to full feed during the first few days of tube feeding, advance to increased volume feeding the next day only when current day was tolerated without problem.
11. Once up to full feed, give 2 feedings 8-10 hours apart, to allow 14-16 hours fast overnight before offering food the next morning.
12. Once up to full feed and in good flesh, skip tube feeding at least once per week, to allow hunger to develop and encourage spontaneous eating.
13. Give appetite stimulant if needed 30 minutes prior to feeding each morning, and allow 30 minutes to eat spontaneously before tube feeding. Offer free choice food during the day between tube feedings, and take up food after evening feeding.
14. If you are having trouble with using large syringes (60cc or 35 cc), try 12-20 cc syringes. The small syringes decrease pressure of resistance and prevent overfilling of the esophagus, regurgitation, and aspiration of food.
15. Remove the tube after spontaneously eating full feed for 3-7 days.

NE-tube, E-tube and G-tube Feeding Schedule:

- Day 1:** 3 ml/lb by tube QID
- Day 2:** 4 ml/lb by tube QID
- Day 3:** 5 ml/lb by tube QID
- Day 4:** 6 ml/lb by tube QID
- Day 5:** 7-8 ml/lb by tube QID (full feed in most cases)
- Day 6:** 10 ml/lb by tube TID (full feed divided TID)
- Day 7:** 15 ml/lb by tube BID (full feed divided BID)

Maximum stomach capacity for healthy animals is 45 ml/kg or 20 ml/lb.
Always adjust feedings per individual needs, according to weight loss or gain.

Jejunostomy Feeding Plan:

Use a liquid diet.
Most liquid diets are 1-1.3 kcal/ml.
Most dogs and cats can be fed at 1-2 ml/kg/hr.
Adjust CRI from there based on body condition, and comparing weight loss or gain to target weight.