

Nutritional Care for Orphaned Puppies and Kittens



Preparation of equipment

Hygiene of the feeding equipment is essential. The immune defenses of the puppy/kitten are barely developed and the administration of artificial milk via soiled equipment increases the risk of infection, especially with bacteria. Cleanliness is even more important if the orphan did not receive adequate colostrum.

- Wash both hands and equipment (bottle and teats) using a soft detergent (*e.g.*, washing-up liquid), then rinse and sterilize the feeding equipment with boiling water. This should be performed prior to each feeding.
- Do not keep reconstituted milk for more than one hour (even if it has been in the refrigerator). The milk provides an ideal medium for the growth of pathogenic bacteria.

Preparation of the milk

- Boil water (fresh water, even from a bottle is not sterile) and allow it to cool to 158° F (70°C) and then add the powdered milk (always following the manufacturers recommendations for reconstitution).
- Do not use a microwave as the microwave does not heat evenly. Some parts of the bottle might burn the puppy/kitten.
- The mixture should be homogenized in two phases; the vortex helps to homogenize the milk.
 - Create a whirlpool effect inside the bottle by rotating it several times.
 - Shake up and down.
- Allow the milk to cool to around 98°F (37°C) before feeding the puppy/kitten (you can place the bottle under running tap water to cool).

Feeding the puppy/kitten

- The newborn puppy/kitten is immature in terms of thermoregulation and has an increased sensitivity to dehydration.
- Hypothermia affects the digestive system. When the body temperature is < 93°F (34°C), the body is unable to digest food.
- When the body temperature is < 90°F (32°C), the suckling reflex disappears. Therefore, before feeding, check the body temperature of the puppy/kitten and use a hot water bottle wrapped in a towel, or a heater, to maintain an ideal temperature for the puppy/kitten.
- The humidity of the nursery room/nest area should be maintained between 55-65 percent.

Frequency of feeding

Age (weeks)	Number of times to feed per day	
	Kittens	Puppies
1	7	8
2	6	5
3	5	4
4	5	4

Administering via the bottle

- This is the easiest technique. Typically puppies and kittens will suckle until full, but the length of each meal should not exceed 15 minutes to avoid digestive overload.
- Use a rigid bottle so that the puppy/kitten may truly regulate the flow of the meal.
- Select the size of the teat, according to the species, the size and the age of the puppy/kitten. The hole pierced in the teat is ideally linear (non-pierced with a hole), enabling the puppy or kitten to better regulate milk flow.

For additional information, please contact your Banfield medical team.

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- The puppy/kitten should be held in a physiological position. It is dangerous to let suckling occur when your puppy/kitten is lying on the back.
- During feeding, the puppy or kitten will often have a “kneading” reflex; it is important not to constrain the puppy/kitten to prevent the expressing of this natural behavior.

Oro-esophageal feeding tube

- This method is used by veterinarians/veterinary care team in weakened puppies or kittens.
- Use a supple urinary or intravenous catheter. The syringe must enable slow administration of the complete meal.
- The length of the feeding tube should be marked so that it will be placed into the distal esophagus (distance between the nose and the tip of the elbow), but not into the stomach.
- The feeding tube should be lubricated and slowly introduced between the tongue and palate and into the esophagus. The position of the tube should be confirmed by attaching a syringe and aspirating. If it is in the trachea, air will be aspirated.
- If during the feeding process, reflux is observed, it is necessary to reduce the speed of administration and to slightly withdraw the tube.

Stimulate the puppy/kitten after feeding

- When it is less than 3 weeks old, the puppy/kitten can't urinate or defecate alone.
- After each feeding, stimulate the perineum with soft, moist lukewarm cotton wool (as an imitation of the mother's behavior), to encourage the puppy/kitten to urinate and defecate.

Additional tips

- Puppies/kittens should be weighed prior to each feeding in order to verify weight gain.
 - Healthy weight gain is 10-15 g/day in kittens.
 - 10 percent body weight gain/day in puppies.
- Do not feed cow's milk to puppies or kittens.
 - Cow's milk is more diluted, provides less energy and not the correct levels of calcium and phosphorus.
- Don't use starch to formulate dog or cat milk replacers.
 - Use milk replacer with the right level of lactose - around 18-19 percent dry matter basis.
- Don't overfeed kittens & puppies – this will cause diarrhea due to overload of their digestive capacity .



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