

## General Care of Bottle Baby/Nursing Kittens

### Normal Appearance:

- The kittens should be bright, alert, and responsive when awake. Newborn kittens will sleep most the time, waking only to eat. They will generally be very quiet unless hungry. Kittens nursing from their mother should not make much sound. If they are crying, it generally means they are not getting something they need or may be sick.
- Their fur should be generally clean and soft. Nursing moms should take care of cleaning them and will also stimulate them until they learn to use a litter box on their own. If nursing kittens are not clean and/or smell of urine/feces, mom is not taking care of them and they may need to be bottle fed or cleaned/stimulated by you.
- Eyes and Ears are closed at birth and will open between 10 and 14 days after birth. It is very important to let the eyes open on their own. The eyes and nose should be clear. Any discharge may be a sign of developing infection.

### Stimulating Bottle Baby Kittens:

- Kittens are not able to urinate or defecate on their own until they are 3-4 weeks old, so they will need to be stimulated to empty their bladder and/or bowels after each feeding.
  - If the kitten refused to eat or detaches from the bottle very quickly, they may need to be stimulated before the feeding as well.
- To stimulate a kitten, turn the kitten onto its back and rub a moist cotton ball or slightly damp washcloth on their genital area to start the flow of urine.
  - Urine should be very light yellow or colorless. Dark urine may indicate an issue with the kitten (dehydration, not eating enough, etc)
- This will also help stimulate a bowel movement. Kittens may have a BM once a day or every day and a half.
  - Feces should be yellow/tan and soft or pasty
    - Watery yellow/green stools may be a sign of overfeeding, but *any* diarrhea in bottle fed kittens should be addressed sooner rather than later!

### Feeding:

- Kittens are normally born with a suckling and rooting reflex which allows them to nurse from their mother or the bottle. If the kitten does not take to the bottle at first, they may need to be stimulated (see above) or may be full. Try again in an hour or so.
- Kittens should be fed positioned feet down (sternal) with head slightly elevated and stretched out. They may want to stand up while eating, but should not be fully vertical or leaned back
  - Kittens should **never** be bottle fed like a human infant
- Bottle baby kittens should **only** be fed Kitten Milk Replacer and should never have cow's milk
- Just like human babies, kittens should be burped following bottle feeding. Hold the kitten with its belly down against your shoulder and pat gently until the trapped air is released.

**\*\*Fun Fact:** *Brushing a kitten with a soft tooth brush while feeding will mimic the mother cat cleaning them and may stimulate appetite and willingness to suckle!\*\**

## Orphaned Kitten Bottle Feeding Chart – Based on Weight

Newborn kittens are usually born at around 2.5-4 oz each. Their growth curves may vary significantly depending on each kitten and their eating patterns, but they should gain about ¼ - ½ oz every day, or ½ - 1 oz every other day. In general, healthy kittens should weigh approximately ¼ pound (or 4 oz) per week of age up to about 3-4 months.

If they are maintaining weight for a couple of days, there is usually nothing to worry about as long as they gain in the long run. **Any** weight loss in a kitten, especially nursing/bottle fed kittens, should be addressed as soon as possible.

*\*\*The chart below is meant as a general guide and will not necessarily be consistent with every animal. Some kittens may eat more as they become more comfortable with the bottle and the number of feedings may be reduced. Additionally, not all kittens will follow this growth chart based on age/weight. The most important thing is consistent weight gain.\*\**

Approximate Age	Weight (oz)	Minimum Daily Volume of KMR (mL)	Amount per Feeding (mL)	Feedings/Day
Newborn	2	15	2.5	7-8
	3	22.5	3.5	7-8
1 week	4	30	4.5	7-8
	5	37.5	5.5	7-8
	6	45	6.5	7-8
	7	52.5	8	7-8
	8	60	12	5-6
2 weeks	9	67.5	13.5	5-6
	10	75	15	5-6
	11	82.5	16.5	5-6
	12	90	18	5-6
3 weeks	13	97.5	19.5	5-6
	14	105	21	5-6
	15	112.5	22.5	5-6
	16	120	24	4-5
4 weeks*	17	127.5	25.5	4-5
	18	135	27	4-5
	19	142.5	28.5	4-5
5 weeks*	20	150	30	4-5

\* Around 3-5 weeks of age, kittens may begin eating canned food (or a combination of canned food/KMR) and may reduce the amount of food they take from the bottle.

## Addressing Eating Issues in Bottle Fed Kittens

Not all bottle fed kittens are alike, and many will have their own preferences and needs regarding eating (temperature, nipple type, delivery method, etc). There are many things that may cause an eating issue with a bottle fed kitten, but there is most often a relatively simple solution to their issues.

If the kitten is not interested in eating but otherwise appears normal (alert, clean, responsive to touch, etc), see if any of the following issues apply, correct them, and try again:

<b>Improper Feeding Position</b>	Kittens should be positioned feet down (sternal) with head slightly elevated and stretched out. NEVER feed a kitten on its back
<b>Milk Temperature</b>	KMR should be 97-100°F. It should feel slightly warm when dripped onto the back of your wrist. If the milk is too cold, it may lower the kitten's body temperature and cause other issues; too hot and it may burn the kitten.
<b>Kitten too Cold</b>	Normal bottle fed kitten temperatures should range from 97-100°F. If the kitten is too cold, their digestion will be compromised and they may not be interested in eating. If the kitten's extremities feel cold or the rectal temperature is below the above range. Wrap the kitten in a warm towel or place near a warming disc to warm them at no more than 2 degrees per hour, and attempt feeding again.
<b>Milk Flow too Fast</b>	If the flow from the nipple is too fast the kitten may have a hard time swallowing the milk and may aspirate into the lungs. Make sure that the flow from the nipple is at a drip of 1-2 drops/second and not a consistent stream.
<b>Nipple Type</b>	There are various nipple lengths and styles and some kittens may prefer a different nipple type than others. If they are not responding to the nipple or appear to be choking on the nipple, try a different kind or feed out of a syringe until a different nipple type can be obtained.

Kittens who are not gaining, or are losing weight need to be syringe fed until they are more consistent with eating and/or gaining weight. Some kittens may also take some time to develop a suckling reflex and will need to be syringe fed until they are able to eat from the bottle.

This will also help you keep track of exactly how much food the kitten is eating. While syringe feeding, it is advised to offer the food more often during the day as they are likely to take less at each feeding. Always try to reach the minimum amount of KMR as recommended for the kitten's current weight.

*\*\*Please be advised that you should not actually FORCE the milk into the kitten. This procedure is meant to help the kitten get some nutrition and eventually drink from the bottle on its own.\*\**

#### To Syringe Feed:

- Wrap the kitten in a towel to keep their temperature up and place them in the proper feeding position (face down – sternal – with their head slightly elevated)
- Rub a little bit of sugar water or diluted Karo syrup onto the kitten's gums to help elevate their blood sugar and hopefully entice their appetite.
  - Be careful not to use too much and saturate the fur around the face making the kitten very sticky.
- Draw up some KMR into a curved-tip syringe and insert the tip of the syringe into the kitten's mouth.
  - You can also use a 3cc syringe to accurately track how much the kitten has eaten
- Very slowly push down on the plunger to place 1-3 drops of KMR on the kitten's tongue
  - If the kitten is not moving his mouth and/or swallowing, wait a minute and then try again
  - If you see KMR bubble through the nose, that is a sign that the kitten is not swallowing and instead may be aspirating the milk! Turn the kitten upside down and pat them lightly on the back for a few seconds to help get any aspirated milk out, then put them upright again.
- If the kitten continues to refuse to eat, let them skip the feeding and try again in an hour or so.

## Diarrhea in Bottle Fed Kittens

While diarrhea is very common in kittens and may not seem that serious at times, it can very easily turn deadly in a bottle fed kitten and should be addressed as soon as possible. Because these kittens are so small, they can get dehydrated and go downhill in a matter of hours. Below are some possible causes and suggestions, however, contact your veterinarian if you have any major concerns!

### **Possible Causes:**

- 1) Too much food
  - a. It could be that the kitten is eating too much at each sitting and it is overwhelming their tiny little digestive system. Try to feed smaller amounts of food more frequently. This may help by allowing the digestive system to reset and hopefully be able to better digest the food.
  - b. Stools will likely be yellow or green in color and watery
- 2) Too much sugar
  - a. If you have given Karo syrup or sugar water to help stimulate the appetite, the digestive system could get overwhelmed and may also cause diarrhea.
- 3) Diet Change
  - a. Sometimes the kitten formula may disagree with the kittens little digestive system because they have been used to their mom's milk or they just need to be eased into it.
  - b. Try mixing  $\frac{1}{2}$  of the recommended amount of KMR powder for the first day of feedings, and then gradually increase that to the fully amount over the next few feedings.
    - i. Having it diluted may allow the digestive system to get more accustomed to the new diet more easily and prevent any further issues.
  - c. Try mixing the formula with unflavored pedialyte instead of water to help improve electrolyte balance and aid in rehydration.
    - i. Adding probiotics may also be helpful

## Fading Kitten Protocol

Fading Kitten Syndrome is a life threatening emergency in which a kitten, sometimes one that was previous healthy, “crashes” and begins to fade away. If not dealt with immediately, it can quickly result in death. It is possible that there may be another underlying condition causing these symptoms that may not be able to be treated, but it is always worth it to try.

### **Symptoms:**

- Low Body Temperature – kitten feels cool or cold to the touch
- Extreme Lethargy – not able to stand, unresponsive to touch
- Gasping for Breath and/or Loud, Pained cries/meowing

Most often, this is caused by two things: **Hypothermia** (being too cold) and/or **Hypoglycemia** (low blood sugar). The following steps should be taken *immediately* if the above symptoms are observed!

### **1) Get the kitten warm!**

- Create the “burrito” towel. Immediately wrap the kitten up in a towel like a burrito leaving *only* their face exposed. The entire body, including the tail, ears, and paws, should be in the towel with only their nose and mouth exposed. Do not take the kitten out of the towel to adjust or check on them – every time they are out of the towel, they will be cold again!
- Wrap a heating pad (turned on \*low\*) or a couple of warmed rice socks around the burrito towel as an extra source of heat. An ace bandage or another towel may be used to secure the heat source in place.
  - Be sure the heat source is not directly touching the kitten!

### **2) Raise their blood sugar!**

- Mix up 2/3 Karo syrup (light corn syrup) and 1/3 warm water or a few teaspoons of sugar in hot water
  - You don’t want the solution to be too sticky and coat their face and fur. It isn’t helpful outside of the body!
- Use a syringe or your finger to give 3-5 drops every 3 minutes into the mouth of the kitten.
  - Use an egg timer or stop watch to make sure it is at least every 3 minutes. 5-10 minutes is too long and may compromise the success of the kitten!
  - If the kitten is not able to swallow, simply rub the solution onto their tongue or gums – we don’t want them to aspirate!
- This should start helping almost immediately. If the kitten is not improving after about 15 minutes, they may need even more specialized care or may be beyond help.