

FEEDING ORPHAN KITTENS

Laura Collins, DVM

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When to bottle feed

- Kittens must be bottle fed if removed from queen before they are weaned.
- Examples:

queen is deceased, or abandoned the litter. Do not assume every litter is abandoned if the queen is not present. She may be out hunting. Check back later in the day if you're not sure. The kittens are usually safer with her than with you.

queen hurting the kittens

queen not producing enough milk (kittens not gaining weight)

kittens in danger or otherwise needs to be removed from location

Please make sure kittens are too young to eat. Kittens begin eating at 3 to 4 weeks sometimes. If they are able to eat it is safer for them to go straight to food instead of the bottle.

Newborns

- Kittens are usually born at 85 to 113 gram.

In the first 24 to 48 hours, they receive colostrum from the queen, containing potentially life-saving antibodies to diseases. If possible, they should be left with the queen for this period

A kitten is able to live even if he doesn't receive colostrum.

Husbandry

- Kittens should be provided with a heat source covered with a towel or blanket to dissipate the heat. The heat source could be a Snuggle-Safe, a hot water bottle, or a bag of fluids heated in the microwave. Any of these should be covered with a towel or blanket.
- Kittens should be kept in a small area, so they cannot move too far from each other or from their heat source. A cat carrier works well.
- Kittens should be provided a heat source until they are at least two weeks of age, if healthy. I usually provide one until 4 to 6 weeks.
- If you get an abandoned kitten that is already cold, it is important to warm him up prior to feeding. The formula will not be absorbed while the kitten is cold.
- If the kitten does not warm up and start moving quickly, it would be best to see a veterinarian. He may need fluids, dextrose or other supportive care.

Bottle Feeding

- Kittens should be bottle fed using a balanced kitten formula, i.e. KMR or just Born.
- These are available through veterinarians or pet stores.
- Bottles designed for kittens are available where you buy the formula.

Preparing the Bottle

- Kitten bottles need to have the nipple punctured. The hole should be very small initially, so as to prevent the formula flowing too quickly.
- You can use a small scissors to cut a very small hole in the tip of the nipple. (embroidery scissors or cuticle scissors work well for this).

Formula

- The formula should be warmed to body temperature, and shaken so that the temperature is even throughout the bottle.
- The amount your kitten should be taking in depends on her age and weight. During the first week of life he should take in 60 ml/lb/day, during the second week about 70 ml/lb/day, during the third week about 90 ml/lb/day and at four weeks about 100 ml/lb/day.

Positioning

- When bottle feeding, the kitten should be positioned on his stomach, simulating the position he would take when nursing from his queen. If kittens are held on their back, the risk of aspiration increases.

Latching

- When the kitten “latches on” correctly, the nipple will be coming directly from the front of her mouth, between the canine teeth, and her ears will move when she sucks properly
- Do not force the kitten to drink. You could cause aspiration if you squeeze the bottle or push down on the syringe too hard. Allow the kitten to latch on and suck as hard as she wants. If milk comes through the nose, she is drinking too fast. Detach the bottle, wipe the milk from her nose and try again later. The hole in the nipple may be too large.
- If she coughs or has difficulty breathing after aspirating, see a veterinarian. She may need antibiotics to prevent aspiration pneumonia.
- You can check if your kitten is swallowing by placing a finger gently on her throat as she nurses. You should feel her swallow every few times she sucks
- In a very young kitten, the nipple can be placed on a syringe in order to more accurately measure how much formula is being taken in.

Frequency of Feedings

- Kittens should be bottle fed every two to four hours throughout the day.
- I usually feed once overnight at 2 am until they are two weeks old, or longer if they are not doing well.
- Your kitten should be gaining weight at approximately 120 gram per week. By a month of age, she should be about a pound.
- You may want to buy a small scale to monitor your kitten’s weight, especially if you foster a lot of bottle babies.

Elimination

- The queen will stimulate the kitten to urinate and defecate by licking his urogenital area.
- We simulate this by gently patting the urogenital area with a cotton ball.
- The urine should be clear or very lightly colored yellow. A deep yellow urine in a kitten indicates dehydration.
- I hold the kitten in my hand in a normal standing position, and use the cotton ball. I usually do this over a sink.
- Stimulating the urogenital area too roughly can result in irritation. Gently clean the area with warm water and apply Vaseline if the area becomes inflamed.
- Kittens may need their rear ends bathed periodically if they are urinating or defecating on themselves to avoid urine scald.
- Your kitten should be defecating daily. Most kittens have soft stool to pudding-like stool when on formula.
- Constipation is not unusual and can be helped by adding a small amount of canned pumpkin to the formula. I add about $\frac{1}{4}$ to $\frac{1}{2}$ tsp per bottle.
- Diarrhea is also common and can be addressed by diluting the formula with water to about half its normal strength. Deworming with pyrantal pamoate can be done as early as two weeks of age if roundworms or hookworms are suspected. Probiotics can be helpful for diarrhea.

Weaning

- Kittens can eat solid food starting at 3 to 4 weeks of age.
- A good food to start them on is a canned kitten diet or Hill's a/d diet mixed with formula to a gruel consistency. KMR also makes "2nd Step" kitten food but I have no experience with it.
- Once they begin eating well, you can offer food more frequently and start to decrease the frequency of offering the bottle.
- Until I am sure they're eating well, I offer the bottle after they eat solid food.

Litter Box

- Now is a good time to introduce them to a litter box. Make sure the sides are short enough that they can get in it!

Tube Feeding

- If your kitten refuses to latch on or take in enough milk that he is gaining weight appropriately, it is quick, easy and safe to tube feed.
- You should discuss with your veterinarian how to tube feed but I will offer a brief discussion here.
- I use a 3.5 to 5 french red rubber catheter.
- The main concern when tube feeding is to ensure the tube enters the esophagus, not the trachea. Putting formula into the trachea will be fatal.
- To ensure I'm in the esophagus I do three things:
 - Measure the tube from the mouth to the last rib and use a permanent marker to mark how far this is on the tube.

- Listen for vocalization. If the kitten is able to vocalize, the tube must be in the esophagus. If the tube were in the trachea, it would pass through the larynx making vocalization impossible.
- Place a small amount of water down the tube before instilling the formula. If the tube is in the trachea, the kitten will cough up the water. A small amount of water being coughed up won't be fatal. Formula in the trachea will be.
- If I'm not sure the tube is placed correctly, I pull it out and re-tube until I'm comfortable that it is in the esophagus.
- The amount I feed is the daily amount divided by 5 or 6 feedings, however many I'm planning to do over the course of the day.
- Make sure the formula is warmed just like a bottle would be.
- Any oral medications can be placed down the tube, too.

Common Kitten Problems

- Upper respiratory tract infection can cause sneezing, coughing, nasal or ocular discharge, tongue ulcers or fever. This is contagious to other cats or kittens
 - These kittens need to see a veterinarian or one of our technicians to have antibiotics prescribed, and supportive care started if needed. Try smelly food to encourage eating if they're on solid food.
- Neonatal ophthalmia is a conjunctivitis that occurs before the kitten opens her eyes. You will notice the closed eyes bulging and the skin becoming inflamed. It is important to treat this as soon as possible because the kitten's eyes will not develop normally if this is untreated.
 - These eyes need to be soaked and forced open several times a day. Antibiotics should be given orally and into the eyes.
- Fleas can cause a life threatening anemia in a young kitten. Unfortunately, many flea products are toxic to young kittens. Dawn dish detergent as a shampoo has some action against fleas, and will slow them down so you can pick them out with a flea comb.
 - Capstar is a pill that can be given to young kittens. It is approved for four weeks and older, but some veterinarians will give $\frac{1}{4}$ or $\frac{1}{2}$ pill to younger kittens.
- In the first week of life, we can see an infected umbilicus. The umbilicus, where the cord is attached, will become red, swollen and may ooze pus. These kittens can become septic and need to be placed on antibiotics.
- Hypoglycemia will present as a suddenly cold, collapsed, weak kitten. Syringe some karo or maple syrup into the mouth and feed more frequently for the next few days. Keep them warm!!
- Failure to thrive (fading kitten syndrome) is a catchall term describing a kitten born apparently healthy but stops nursing, loses weight, becomes weak and sometimes dies

- Our technicians and veterinarians can help you if any of these problems occur. He or she may prescribe antibiotics orally, or in the eye, and may rehydrate your kitten with subcutaneous, intravenous or intraosseous fluids.

Developmental Milestones:

- Kittens are born with their eyes closed. The eyes will open about 7 to 14 days. They are all born with blue eyes. The true iris color will be complete by 8 weeks of age.
- Kittens will begin to erupt their deciduous (baby) teeth at 3 weeks of age. They will begin to lose their deciduous teeth at 14 weeks old, beginning with their central incisors. They will have all their adult teeth by about 6 months of age.
- Kittens are born with their ear canals closed, so they cannot hear. The ear canals open between 10 and 14 days old.
- Kittens are born at about 113 lb. They should weigh 455 at 4 weeks of age. Until the age of 6 months, they should gain about a ½ kilo a month.
- The umbilical cord will usually drop off by about day 3 or more.
- A kitten should be able to stand by 10 days of age, and walk by 21 days.