



Orphaned Neonate Kitten Information

When a mother cat is not available, we must hand-raise orphans using the guidelines below. It is beneficial for orphaned kittens to have a foster queen as a first choice whenever available. This will reduce mortality, improve the kittens' immunity, and promote normal socialization.

Therefore our Foster Care staff might contact you to take a surrogate mother to help nurse your orphaned kittens.

Temperature & Environment

Proper environmental conditions are critical for survival of orphan kittens. Newborns cannot regulate their own body temperature. Becoming too cold is a frequent cause of death.

Becoming too warm can cause dehydration or burns.

Keep with littermates and provide humidity (55-75%) when possible.

Temperature of the nesting box should be maintained at 85°F for the first week, then drop 3°F each week for the next 4 weeks. Check the temperature at the level of the kittens.

Create a nest box such as a carrier, with a heat source, such as a heating pad on LOW or hot water bottles wrapped in towels. BE SURE THAT THE KITTENS HAVE ROOM TO MOVE AWAY FROM THE HEAT. For instance, if you are using a heating pad, place it under several towels, and make sure that it covers only half of the floor area of their box. Line the box with soft, absorbent bedding, free of loose threads. Bedding needs to be changed at least daily for sanitation purposes.

Ages of kittens	Environmental Temperature (F)	Environmental Temperature (C)
Week 1	85 - 93	32 - 34
Week 2	81 - 84	27 -29
Week 3	75 - 81	24 - 27
Week 4- 12	75	24

Weighing

- **Kittens less than 4 weeks old must be weighed daily** to ensure appropriate feeding and medical care.
- **A healthy kitten should gain weight 10-15g daily.** Seriously underfed kittens will fail to gain weight and will be restless and cry excessively. The best way to assess the correct amount of formula to feed is to aim for weight gain and the production of normal stool.

Feeding

STEPS TO FEEDING BABY AT A GLANCE:

1. Cuddling!
2. Potty
3. Weigh, if needed
4. Feed fresh formula, warmed, in a bottle
5. Bumping
6. Potty

MILK REPLACER

- Please use **ONLY** our specific milk replacer of choice: **KMR**
- **Mix 2 parts water to 1 part formula (2:1 ratio)**
- **Newborns: transition from 8:1 ratio to 4:1 ratio every 4 meals, then eventually 2: 1.**

HANDLING FORMULA

- **Strict hygiene is needed to avoid causing illness;** wash your hands before and after feeding. When mixing and handling formula,
- All feeding equipment should be **cleaned thoroughly and boiled in water between feedings.**
- **Only the volume that will be used in 24 hours should be prepared and refrigerated.**
- **The powder must be well mixed to avoid clumps.**
- Milk replacer left at room temperature should be **discarded after 1 hour.**

HOW MUCH TO FEED AND FREQUENCY OF FEEDING

Please see “Neonatal Kitten Feeding and General Care Guidelines” and “Kitten Bottle Feeding and Stomach Capacity Chart.” These handouts will give you amounts of food you are supposed to feed without mathematics!

- **7.5 mL X Body Weight per oz (or per 30g) = Total Amount to feed for 24 hour period.**
- **Then the total amount / number of feedings = Amount in ml PER meal**

A kitten that has been starved or is just starting formula should get 50% of the normal food for the first day, and then adjusted upward to normal over the next 2 days. In general, kittens in the first week of life require a volume of milk replacer equal to 10–15% of their body weight daily. This increases to 20–25% of body weight per day from 1 week of age to 4 weeks of age. The daily volume of milk replacer should be divided into meals given every 2 to 4 hours during the first week of life, and then every 4–6 hours until weaning.

TIMING

Do not wake the babies at feeding time. Let them sleep. When they wake up hungry, they will let you know. If kittens are eating very well during the day, they can often go 4 to 6 hours at night without waking to eat.

WHAT SHOULD YOU FEED WITH?

A bottle!

1. Allows neonate to suckle, less risk of aspiration, takes more time
2. Use a veterinary bottle or “petnursery”
3. Try a variety of nipple shapes--some neonates will have preferences
4. Milk should ooze slowly from the nipple
5. Never squeeze the bottle while neonate is suckling
6. Always feed with neonate on stomach, neck slightly outstretched
7. Never feed a cold neonate (<95°F)
8. Formula should be mixed in a consistent manner.
9. All feeding utensils should be kept clean
10. Heated formula should not be stored and re-heated
11. Formula should not be stored in the same bottle used for feeding
12. Mixed formula should be discarded after 24 hours

FEEDING TECHNIQUE

1. Cuddle before feedings.
2. It is best to feed the kittens one-by-one, and on a counter-top - this allows them to feed with all four feet on the counter, and their heads level, much as they would if they were nursing from their mom.
3. Milk replacer should be warmed to (95–100°F) by immersing the container in a warm water bath. Microwaving milk replacer may cause overheating or uneven heating – use microwave with caution and test the temperature of the milk on your own wrist before offering it to a neonate.
4. They will require a little support from you in this position. Gently open a kitten's mouth with one finger and place the tip of the nipple on his tongue. If he won't eat, try stroking him. Pull lightly on the bottle to encourage vigorous sucking.
5. **Be sure to tilt the bottle up slightly at 45 degree angle** to prevent the kitten from inhaling too much air. **If formula comes out of the nose, the baby is drinking too fast.**
6. It is more natural to feed them right side up rather than on their backs like human infants. Some kittens prefer to nurse standing on their hind legs while holding the bottle.

THINGS YOU SHOULD NOT DO

- Do not force the kitten to nurse, or allow him to nurse too fast.
- NEVER feed a kitten while he is cradled on his back: if the fluid goes down the wrong way, it may end up in his lungs.
- Spoons, syringe feeding, and eye droppers should be avoided for feeding as aspiration pneumonia may occur, which can be deadly.
- Do not feed COLD milk replacer
- Do not feed too fast

LET THEM BURP!

After each feeding, the kitten should be burped. Hold him against your shoulder and gently massage his back or pat it lightly.

OVERFEEDING

Overfeeding can be as dangerous as underfeeding neonates! Monitor how much each baby is eating. If you see signs of diarrhea, separate them until you find out which one is sick. Your kittens will generally regulate their own food intake. If they need more food, they may whine or suck on their litter mates. A good indication that they are getting enough to eat is the size of their bellies - they should be filled out after a meal, but not bloated.

Elimination

- **Kittens less than 3 weeks of age cannot eliminate urine and feces voluntarily.**
- Stimulate genital area with damp cotton or towel after feeding
- **Expect the neonate to urinate with every stimulation; it should defecate at least once a day to every other day**
- If neonates are kept together, they will stimulate each other by suckling on each other
- Neonates may have to be separated to prevent trauma from sucking each other's genitalia
- Diarrhea or constipation is frequently a result of changes in the formula or incorrect feeding practices
- Diarrhea can be a result of over-feeding
- Constipation can be a result of feeding too concentrated a mixture.
- Monitor weight daily on a kitchen scale- target 10% daily weight gain

Grooming and Nurturing

- Queen usually grooms by licking. Mimic this by gently washing whole body with a warm damp cloth every 2-3 days
- Clean the face and the genital areas after every feeding

The Litterbox (around 4 weeks)

- Litter should be made available at about 4 weeks of age.
- A litter box with **low sides and 2.5 cm (1 inch)** or less of non-clumping litter or shredded newspaper should be provided.
- After each feeding, as well as after play time or naps, the kitten should be placed in the litter box to encourage elimination.
- Confining kittens to a smaller space during this time period may facilitate the process of litter training.
- The litter box should be kept clean, and situated well away from food and water.

Weaning

Please see “Neonatal Kitten Feeding and General Care Guidelines” and “Kitten Bottle Feeding Stomach Capacity Chart (A quick Cheat Sheet).”

- **At 3-4 weeks of age, kittens can be taught to eat gruel from a shallow saucer.** Even the best milk replacers have the potential to cause problems, so orphaned kittens should be weaned as soon as practical.
- Many kittens learn to ingest food by first stepping it in and cleaning themselves, so the weaning process is often messy!
- **It will take 1 to 2 weeks to wean kittens! Ensure to supplement meals with bottles if needed.**
- Please keep fresh water and kibble available to the kitten(s) at all times during this period, so they can explore on their own.

STEPS AND TIPS

STEP 1: Make **Gruel by mixing one part kitten food to 2 parts milk replacer**. Serve it in a shallow bowl or saucer for the kitten. The flatter the surface such as saucers or paper plates during the weaning process.

STEP 2: **One kitten at a time, when it is a meal time, teach him/her how to eat it by hand feeding or using a finger or tongue depressor until she/he begins on her/his own.** Dip your finger into the gruel and touch it to baby’s mouth to taste repeatedly while offering the warm bowl of gruel. You may also use a 3 ml syringe and give one drop of gruel at a time into the mouth offering the bowl of warm food intermittently. Be careful to watch that the kitten is not dunking his or her head into the gruel and trying to suckle.

STEP 3: **Continue feeding Gruel for 3 to 5 days. This is an important time to monitor the kitten’s food intake as Fading Kitten Syndrome can occur during this transition if they do not eat enough.**

STEP 4: **Introduce some DRY KIBBLE (by 5-6 weeks),** once kitten is eating gruel well

- o Then, feed only kitten kibble & canned food, and keep hard kibble and fresh water available at ALL times.

TIP 1: Warmed food may be more acceptable. Once the kitten has learned to eat from a saucer, the amount of milk replacer fed can be slowly decreased until only solid food is being ingested.

TIP2: You may use turkey baby food to bridge the gap & help improve kitten's appetite for canned & non-milk-type food. Please note that KMR is not a complete diet and should only be used to supplement baby's food during the weaning transition.

TIP3: If no interest, feed kitten with a bottle.

Weaning is a messy business and neonates will start out wearing more of the food than they eat!

FEEDING AMOUNT

A kitten weighing **1 to 2 lbs. (450g to 900g)** should eat about **1/8 to 1/4 can every 4 hours during a day**, plus fresh water and kibble, free fed.

Weigh of kittens		Can food amount
Grams	Pound	
450g	1	1/8 can
500g – 700g	1.1 – 1.5 lbs	1/8 can to 1/5 can
750g – 950g	1.6 – 2 lbs	1/5 can to 1/4 can
1000g (1kg) – 1300g (1.3kg)	2.1 – 3 lbs	1/ 4 can to 1/3 can

IMPORTANT THINGS TO KNOW

- Wean kitten slowly & consistently for 1 to 2 weeks.
- **By 5-6 weeks of age, kittens are able to chew dry food.**
- Weaning is usually complete by 6–9 weeks of age.
- **Weaning is a high-risk time for morbidity and mortality** as outbreaks of diarrhea and disease are common. Remember, overfeeding often results in diarrhea & loose stool.

- Attention to nutrition and wellness care, as well as good husbandry and hygiene, is important.
- **Weigh kittens at the same time each day** to ensure adequate weight gain and nutrition. Post weaning kittens should **gain about 100g per week** until 20 weeks of age.

Socialization

A great amount of time and effort is required to properly socialize neonates, but ensure that any socialization is in a controlled and sanitary environment. Please ensure all visitors wash hands before and after socializing the kittens. No outside time or socializing with adult pets should be offered – kittens are fragile and lack immunity to handle bacteria, parasites, viruses, and fungi that they may inadvertently be exposed to with outdoor time or socializing with unrelated pets. (Examples of a few: clostridium, coccidia, panleukopenia, ringworm, etc.)

1-2 WEEKS

- Briefly rock the baby back and forth
- Rub the coat briskly with your hands, and gently finger the webbing between the toes
- Invert the baby so it is facing the ceiling and gently rock back and forth, up and down

2-3 WEEKS

- Gently roll the neonate over onto its back for 10-15 seconds, and then draw it close to you, stroking and cuddling it
- Grooming--gently brush the neonates coat a few strokes, touch the ears and mouth and clip the nails
- Make sure that each neonate gets to spend time with others and also alone

3-4 WEEKS

- Be careful not to frighten the neonate
- The neonates will start to investigate their immediate environment. Safe, simple toys can be added to their environment
- The neonates can be introduced to new people at this time; contact should be limited to 5 minutes of gentle massage and cuddling

5-8 WEEKS

- Introduce the neonate to as many new people as possible
- Expose the neonate to mild sounds, play a "Noise" tape at low levels
- Expose them to different substrates, and new areas

Recognition of the Sick Kitten

Common problems in neonatal kittens include hypothermia, hypoglycemia, dehydration, constipation, and diarrhea. Many of these problems can escalate quickly so get vet help as soon as symptoms are seen.

PLEASE REFER TO OUR HANDOUTS

“FADING KITTENS AND PUPPIES: WHAT YOU CAN DO”

Hypothermia: This means internal body temperature is too low. Symptoms are: isolation from the rest of the litter, decreased movement, maternal disinterest, feeling cool to the touch, or weakness/floppiness. Treatment is slow re-warming, (to the temperature that is normal for the age- NOT to adult normal temperature.) Warming must be done without burning, because flaccid kittens will not move or roll when one area of the skin gets too hot. Use warm water bottles and warm towels from the dryer to wrap up the kitten. Seek veterinary care and advice immediately.

Hypoglycemia: This is low blood sugar. Symptoms are weakness, flaccidity, tremors, crying, irritability, increased appetite, dullness, coma, or seizures. A small amount of pancake syrup or Karo syrup can be rubbed on the gums until the kitten can be seen by a medical professional. Do not try to bottle feed if the kitten is too weak to suckle or the body temperature is also low.

Dehydration: To monitor for dehydration, touch the gums- they should be moist, not sticky or dry. The urine should also be clear. If the urine is turning more yellow or the gums are dry, the neonate may be dehydrated. Seek medical care.

Diarrhea/Constipation: Normal stools are pasty/tan, getting more formed upon weaning. Kittens should defecate at least daily to every other day. Yellow/green, more frequent and liquid stools are often caused by overfeeding. Constipation can result from feeding too concentrated a formula. Diarrhea may also need to be analyzed in case of parasites, and sometimes constipated pups need an enema. Seek medical care.

Other signs of problems that should prompt veterinary attention include failure to gain weight, vomiting, constant sneezing, yellow and green nasal discharge, lumps/bumps, spots of hair loss, or wounds.