

Orphan Kittens

Raising the Tiniest Miracles with Love, Patience, and Health

By: Lacie Lee, DVM

“Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.

-The Lorax



So, you’ve had the pleasure of being gifted a tiny kitten to raise. With this comes many responsibilities and milestones that you will have the pleasure of experiencing for the next moments until he or she is ready to find a forever home. Before you take your kitten home, assess its overall health. Young kittens, especially in the first week of life, often are found cold (hypothermic), weak (hypoglycemic), dehydrated, and sometimes hypoxemic (low oxygen). Young neonates without mom are very prone to infections. Inspect your kitten’s overall appearance paying special attention to the umbilicus region or umbilical cord. Look for signs of blood, swelling, discharge, or trauma anywhere on your kitten. If you suspect any of these, get them to a veterinarian for critical care. You can begin to warm them yourself while headed to the hospital. Holding them close to your skin while wrapped in a warm blanket or simply drying them with a warm towel if found wet are safe methods of warming them. Heating pads, water bottles, heat lamps and the like can be dangerous to young neonatal skin if not carefully applied. My general rule is, if it is too warm to lay across your arm for at least fifteen seconds, then it is too warm for your kitten’s skin. If you are going to use a heat source, pay close attention and provide a blanket or towel between the kitten and heat, then proceed to your veterinarian for critical care.

***Never force a cold kitten to eat, they do not have a suckle reflex or a good swallow reflex and will aspirate. Your veterinarian will warm them, provide care, then begin to feed via stomach tube until a suckle reflex is present.**

Now your new kitten appears healthy and ready to go home! Here are some developmental milestones to help you age your kitten.

Aging your Kitten

1. Umbilical cord usually falls off around 3 days of age.
2. Eyelids open around 10 days of age (range is 2-16 days).
3. Ear canals open around 9 days of age (range 6-17 days).
4. Normal vision is around 30 days of age.
5. Crawling begins 7-14 days of age.
6. Walking begins 14-21 days of age.
7. Voluntary elimination begins about 3 weeks of age.
8. Baby incisors/canines come in around 3-4 weeks of age.
9. Baby premolars come in around 5-6 weeks of age.
10. Ability to shiver begins around 1 week of age.
11. Homeothermic (able to regulate own body temperature without a heat source) at around 4 weeks of age.

Weighing and logging your kittens schedule

Body weight is an important sign of overall health in your kitten. It is also a good indication of how well you are able to meet your kitten's requirements for growth. You will want to have a gram scale on hand to weigh your kitten twice daily. Kittens should gain 10-15 grams per day. Often the first sign of illness is zero weight gain in a 24-hour period. Newborn kittens will double their birthweight in the first 7-10 days of life. Use a journal to record twice daily weights in grams as well as any other observations you may notice about your kitten's appearance or behavior. Don't hesitate to call your veterinarian if something feels off. Use your intuition with these little guys, waiting even a day can make the difference between life and death.

Housing and bedding for your kitten

1. Provide a dry, safe enclosure that has a heat source for warmth. I prefer to use a small plastic top-loader style kennel for my neonates up to about 3-4 weeks. I like this style carrier as it provides a draft-free, safe environment that is easy to clean. Humidity for these little guys should be about 55-65% to keep them from dehydrating and decrease chances of bacterial growth and infection.
2. Feliway plugins in their room have been shown to be calming and decrease stress. The two most stressful times in these orphans' lives are week 1 and week 4-5 (weaning). Use Feliway Friends or Feliway Multicat as this emits an analogue of the pheromone around the mother's mammary glands released when kittens suckle. It promotes group cohesion and confidence in the kittens.
3. Clean their bedding daily or more often if it is wet or soiled.
4. Wipe the kennel or container clean daily with something safe for kittens (Rescue). Please remove all residue before placing kittens back inside.
5. Provide a heat source that allows the kitten to choose to be on it or away from it. Make sure there is something like a towel or a blanket between the heat source and the kitten at all times. (I use a heating pad on LOW ONLY at all times. If I feel this isn't evenly distributed warmth I will add a small kitten microwavable bean bag. Be careful not to put this on kitten's direct skin contact. I put this under a blanket as well.)
6. Keep them safe from other house pets at all times.
7. I move them into a larger box or cage around 4 weeks to begin introducing a litter box.
8. I often begin with Dr. Elsey's Kitten Attract litter in a small baking tray or a paper plate.
9. Clean the box often!!! It's messy!

Kitten Hygiene

1. Clean your kitten daily with a soft, moist, warm washcloth. Make sure they are dry after. You may use a blow dryer carefully on a low setting if needed.
2. Until your kitten is 3 weeks old and reveals its ability to urinate and defecate on its own you will need to stimulate at each feeding. Use a soft tissue or cotton ball with a bit of mineral oil on it. Gently rub the perineal area (where the genitals are) from front to back with the cotton ball. Kitten urine should be very dilute (not a dark yellow color, more like water). Stool should be yellow-ish and consistency depends a lot on formula choice. Sometimes it takes a bit longer to stimulate a bowel movement. Keep using fresh cotton balls. A kitten will urinate at each feeding. Depending on formula used it may not defecate at each feeding.
3. Keep your kitten's bottom clean and dry. You may use a bit of Desitin, Boudreaux's Butt Paste, vitamin E oil, or Aquaphor if the genital area is inflamed from loose stool or urine. KEEP THIS AREA AS CLEAN AS POSSIBLE!

4. Use an ultra-soft bristled toothbrush to gently brush your kitten every day. This will remove dead skin cells and hair, keeping your kitten's skin and coat healthy.
5. If your kitten has fleas you can give them a warm Dawn bath and remove fleas manually with a flea comb. Frontline spray is approved for use in these young kittens and you can use a small amount on a cotton ball to rub on them. Please make sure they are dry following applications of either. Getting rid of fleas is vitally important, as fleas can be dangerous to them and their delicate cardiovascular system. DO NOT use any over the counter flea medication. If you are struggling with fleas, please give us a call.
6. Clean the kitten's eyes daily with a warm tissue or cotton ball to stimulate healthy tear flow and prevent accumulation of eye discharge and thus infection. It is normal to have clear to mucous accumulation at corners of their eyes daily. Just keep them clean. If you notice green discharge or ocular swelling please see your veterinarian for treatment. Pay close attention to the eyes even before they open. If you notice swelling under the lids please don't wait as this is often a sign of infection that needs immediate treatment.
7. Pay attention to umbilicus and genital areas (especially the male's penis) daily for signs of infection or littermates nursing on one another if you have multiple kittens. This behavior can be dangerous and even life threatening especially to the male kittens. If you notice this nursing behavior you will need to separate the littermates throughout the day. They can be reunited at intervals as long as the behaviors don't start again. Make sure they are well-fed as sometimes this is a sign of hunger. I also provide a stuffed animal between kittens and this sometimes will dissipate the nursing behavior.
8. If you notice any skin lesions or hair loss patterns please see your veterinarian for an exam.
9. Deworming should occur with kitten-safe dewormers at approximately weeks 2, 4, and 6. Your veterinarian will be a good source for this.

Feeding your Kitten

The stomach capacity of a kitten is usually 4-5 mls per 100 grams or 3.5 ounces of body weight. This doesn't seem like much but its plenty for these young kittens. There are many formulas, nursers, and methods to feed your orphan kitten. I will share mine below. These are general and I do vary formula options and intervals from kitten to kitten. My preferred method is the Miracle Nipple (see below) on a syringe. These have pre-slit holes in the nipple. It is so important that the size of the hole on the nipple not be too large, yet not too small that it leads to frustration. The rule of thumb is when held upside down milk SHOULD NOT flow freely, yet with a gentle squeeze a drop should be released. As the kitten ages and the amount per feeding increases, I will transition the Miracle Nipple to a normal kitten Pet Ag small pet bottle.

1. Upon arrival, assess the kitten and do your best to determine when its last meal may have been. If the kitten is warm and is rooting around and has a suckle reflex you can begin to feed. I always start with dextrose and water or very dilute formula (at least by 50%) for the first one or two feedings. This will begin to get intestines moving again as they will slow to stasis if kitten has not eaten in several hours or was found hypothermic (cold). Don't ever force a kitten to eat by squeezing a bottle or pressing the plunger on a syringe. A healthy kitten with a good suckle reflex will be able to do this on their own. I begin with syringes attached to a miracle nipple for small animals. (I will share photos at the end of all my supplies). In kittens less than a week old I use a 3 mL syringe. I replace them often as when you clean them the plunger will get harder for the kitten to move with a suckle reflex.
2. BE PATIENT. It sometimes takes these guys a while to get this. They are just as confused as you are and miss their mom. To get them going I will squeeze a tiny drop out of nipple onto their tongue. Often times once they taste the formula they will begin to nurse.
3. Choose a commercially available kitten milk replacer. Follow directions on the bottle or container closely. Clean the bottle, nipple, and syringes after each feeding to keep bacteria down. In that first

week of life I will sterilize mine daily in a pot of boiling water for a minute or two. Remember many of these kittens do not have a great immunity from their mother. Store formula between feeding in the refrigerator or cooler. Don't make your own formula. These kittens need so many proteins and micronutrients it is almost impossible to simulate with homemade formula.

4. Sometimes powdered formulas will cause constipation and premade liquid formulations will cause diarrhea. You may need to alternate or add a bit extra water to the powder forms to aid with stool passage and dilute the premade liquid form with water to decrease the richness of the formula creating diarrhea. Sometimes I will dilute my premade liquid preparations as much as 50% until the stool forms. If even this does not form the stool I will switch to a powdered formulation. It is not uncommon to do this and often it changes kitten to kitten.
5. When the kitten is full it will push out the bottle, syringe, or nipple and may form bubbles around the mouth. Don't force them to eat. Let a healthy kitten guide you. They do often know what's best for them. When properly fed and stimulated to urinate and defecate they will usually have full round bellies and fall asleep. Sometimes they will purr. The purr is the universal communication between mom and babies for a while. The mom doesn't normally meow at her kittens, she will reserve this for her humans to signal a need that is not getting met.
6. If your kitten is stressed by absence of the queen (mother) or hunger or any other reason it will crawl around its box crying or move side to side in a searching motion. This is your signal to act. Perhaps it's cold, needs a snuggle, more food, to urinate or defecate, or something that requires veterinary attention. Otherwise it will love to be snuggled in blankets in its nesting box until next feeding.
7. I always take a moment to love on my kittens at each feeding and get them accustomed to human touch as soothing, loving, and protecting. This doesn't take long but should be done often throughout the day. Allow others to hold your kitten just remind them to wash their hands prior! 5-7 holding sessions by humans in short intervals per day is part of a proper kitten socialization program.
8. Here are my guidelines for feeding intervals:
1 week or less - every 2-3 hours max. Mostly every 2 hours. **EVEN THROUGHOUT NIGHT!**
2-3 weeks - every 3 hours, closer to 3 weeks I begin to go 4 hour intervals at night
3-4 weeks - 4-6 hour intervals depending on kitten's size and amount consumed at each meal.
Intervals may need to be adjusted from kitten to kitten. If you are feeding too often they may not drink as much and may get diarrhea. Try increasing feeding interval to see if this improves stool. I don't stretch them past 3 hours in that first week of life. They usually prefer small amounts often.
9. Don't hesitate to reach out and ask if you are unsure about anything your kitten is doing or how it is eating.
10. Refrigerate any leftover formula between feedings. Heat to room temperature before feeding. Don't feed cold formula as it will drop their body temperature and often they will not nurse as good if it's cold. I use a cup of warm water to heat my syringes or bottle.
11. Most orphan kittens are ready to begin weaning once they have teeth or around 4 weeks of age.

Weaning

1. Weaning will begin around 4 weeks of age. This process requires patience, diligence, calmness, and cleanliness. There are many ways to wean kittens, not one is best and ultimately the kitten will guide you in terms of its readiness and willingness. Just **BE PATIENT** with yourself and the kitten. When the kitten has teeth and is beginning to use its mouth more in a biting manner versus a suckling manner this is my sign it's time to wean.
2. It's messy! There is just no way around this!
3. I prefer a shallow wide mouth dish so multiple kittens can join in if possible. It really only takes one kitten to "get it" and the rest will slowly follow.

4. I begin by leaving a dish with just water and a dish that I freshen each feeding with whatever formula is in the bottle.
5. I will not offer the bottle at the feeding time, I will instead sit on the floor with a towel on my lap and slowly introduce each kitten's muzzle to the milk saucer with gentle nudging. They will come up shaking and licking their face. This will allow a taste and then some will begin to taste the liquid. Others require another dip, or some milk on a paw to lick.
6. I also will offer some tiny kitten kibble pre-moistened with water to soften at all times from about 4.5-5 weeks on.
7. If they figure out how to drink out of a dish I will gradually introduce some kitten mousse-type food in the milk to gradually thicken as days go forward. The goal is to lessen the milk to canned food ratio over time.
8. I ALWAYS offer the bottle after their exploration into self- eating to let them know there is always a reward and it decreases frustration and stress.
9. Eventually over time they will get this and they will gradually drink less and less of the bottle. Before you know it, you will no longer need to offer a bottle.
10. Some kittens will be stubborn and test you, don't let this bother you they WILL WEAN. Be patient and keep repeating the process. ALWAYS end on a positive note and snuggle. This teaches human to cat interaction is love!
11. Sometimes a gentle yet firm nudge is needed and you may have to withhold the bottle for some kittens approaching the six week mark. You can still end on a positive note with gentle pets and a cuddle.
12. Make sure you have a Feliway plug in in their room during this process if possible! I use Feliway Classic here as it promotes calm and low stress.

Socialization

Orphan kittens can have the reputation of being some of the most difficult cats as they mature into adulthood. There are many reasons for this, some genetic, some in utero, but some of these behavior patterns may be associated with improper socialization and development that occurs at key points during the kitten's growth that we, as fosters, may fail to realize or just simply can't provide. It's hard to replace the mother cat. Having littermates and avoiding single orphan fosters is ideal. The most crucial socialization period in the life of a cat is **2 to 7 weeks of age**. The people, animals, sights, sounds, smells, and environment a kitten is exposed to during this crucial period will mold their adult personalities. Orphan kitten raising is not only a huge commitment from the care and feeding standpoint, but from the socialization and behavior development standpoint it could mean a long life of happiness. Wash your hands, have others wash their hands, handle them often, pass them to friends, let them mingle with other healthy kittens, let them meet your kids, your dogs (if safe), and your cats (if safe). Have them experience car rides, outside sounds, washing machine sounds, hair dryer sounds.. the list goes on and on. Your kitten will learn during this period what it will be most receptive to, what is safe, and what should be avoided. Understanding normal kitten development allows the fosters to provide the right environment for a healthy kitten to develop into a healthy adult. This will provide a more socially developed cat for their forever family with less mismatched homes, surrenders to shelters, and inter-home behavioral issues.

1. Paternal factors: Paternal genetic factors have the strongest influence on the development of a kitten's personality. If the sire was bold and friendly, the kittens will have this tendency. If the sire was shy to humans, the kittens have this tendency. It will then be the fosters job to expose the kitten to many humans with a gentle, quiet touch to increase their chances of good human socialization.

2. Sensitive periods in a kitten's quick developments:
 - a) Neonatal (0-7 days) – totally dependent on mom (or you). Need food, warmth, cleanliness, and tactile stimulation (touch especially to urinate and defecate). Kittens have a tremendous olfactory (smell) sense. This is how they find the mother's teats to nurse and by day 4 will find their favorite teat. If your young neonate has nasal congestion it will likely have a difficult time eating or suckling and should be seen by a veterinarian. They will show avoidance of offensive odors as early as 2 days old. This is one of the reasons odors will set some cats off in a direction of aggressive behavior. Kittens have a strong suckle reflex when touched near the mouth at this age and if touched on the face it will turn towards the side it was touched. You can gently touch a newly awakened kitten's mouth to stimulate the suckle reflex for feeding time.
 - b) Transitional (7-14 days) – Kittens will begin to raise their bodies off the ground and move with a slow paddling gait. The eyes and ears will begin to open. Hearing is present at day 5 but now the kitten will begin to orient towards sound.
 - c) Socialization period (14 days to 7 weeks) – Kittens begin to explore their environment and learn their surroundings what they like and dislike. Visual orienting and following will develop in week 3, but avoiding an obstacle develops week 4-5. Brief episodes of running may begin to occur at 5 weeks. Kittens use all patterns of gait by 6-7 weeks of age and develop ability to land on their feet between 3-6 weeks of age. By 4 weeks they should begin to move away from their nesting box and begin social relationships with other animals and people in the environment. Social play with mom and siblings begins at 4 weeks (this will be directed towards the foster's hands and movements without siblings therefore begin wand play). Social play peaks at 6-7 weeks and is high until about 16 weeks of age. Weaning begins around 4 weeks and is complete by week 6-7. Suckling may continue for several more weeks and this is okay too. Prey play begins at 4 weeks. **PREY PLAY IS A CAT MUST** for lifetime happiness. This is important for the development of a satisfied cat (direct descendent of the North African wild cat – *Felis silvestris*). You must begin to teach your kitten about prey drive and proper development beginning around 4 weeks. I usually have a feather wand and allow the kitten to follow (stalk), reach for it (pounce), bite (kill), and then it's usually over. A happy satisfied cat will then lie down to groom and rest. This form of normal play will prevent aggression towards other sibling cats, humans, and household items in its future home. Kittens weaned early do show higher rates of play, especially prey play. By 5-6 weeks old your kitten should be readily in a litterbox scratching and covering it up. Fearful reactions to stimuli may begin around 6 weeks.
 - d) Juvenile (7 weeks to 6-12 months) – These kittens are preparing to disperse from their home range. They are readily playing around 7-8 weeks of age and social play peaks between 4-16 weeks of age. Social play takes on predation aspects around 12 weeks, object play may be social or solitary.
 - e) Social maturity (development of adult social behavior and interactions with other cats) is reached fully between 36 and 48 months of age. This includes defense of territory.
3. Socialization is not the same as domestication. It is however strongly tied to the neurologic and physical development of the kitten. This process continues throughout life and how they socialize as kittens – especially weeks 2-7 – will influence how they socialize to new individuals as adults. Hand raised kittens develop social interactions with other cats much more slowly, but be patient, it can be done! Recent studies show that orphan kittens are no more likely to display human and other animal fear aggression when raised in a home with other cats and a wand toy to stimulate play and chase.
4. Kittens held and stroked daily during the first few weeks of life opened their eyes earlier and began to explore earlier. They also approached strange toys and people more frequently and were slower to learn avoidance.
5. So, with sufficient human handling and care, the presence of another cat during kitten social development, and the use of wand type play toys, (to show kitten a hand of the owner is not a proper toy), problems may be minimized or prevented!

Congratulations on your willingness to take on one of the most enriching and rewarding experiences in our love and care for the animal kingdom. If you can remember the most important of all things is to LOVE your kitten, then you are on your way to successfully accomplishing all the rest. Don't hesitate to reach out to your veterinarian or other kitten expert with any and all questions.

The cat and kitten are very energy-sensitive beings. It is as if they can sense our nerves and anxieties as well as our emotional energies. I find it is very valuable, productive, and rewarding to center myself before handling my kittens. They will nurse better, feel and receive a loving vibration, and learn human interactions are stable. After all, how many times has your frustrations revealed themselves in a fight amongst your cats, a struggle to get an orphan to nurse well, or even the thought of medicating your personal cat sends him into hiding. Perhaps that is this sixth energetic form of communication that makes bonding with a cat so rewarding and interesting. Be patient, not all kittens follow a protocol, that's okay. Ask for help and REMEMBER TO BREATHE!

References: 1. Little, Susan. "The Cat" Veterinary Medical Textbook
2. My personal experience from years of orphan kitten rearing

Cat Care Center
Dr. Lacie Lee, DVM
12018 Perkins Rd., Suite A
Baton Rouge, LA 70810

Contact Us:
(225) 228-1039
www.CatCareCenter.com
help@catcarecenter.com

My personal Orphan Kitten Favorites:

