Orphan Kitten Care for Shelters

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Orphan kittens commonly enter most shelters, and when they are too young to eat solid food or gruel on their own, management can be time consuming. Raising orphan kittens is best accomplished by a willing foster mother who can meet many of the kittens needs including the provision proper nutrition, warmth, regular elimination, hygiene, security and socialization. Fortunately, most mother cats will readily foster the kittens of another queen. Selecting a queen whose own kittens are of similar size or are recently weaned prevents competition between smaller, younger and larger, older kittens. The introduction should take place in a non-stressful setting: a quiet, warm nest away from humans and other animals. Some queens thrive as foster mothers and can safely raise multiple consecutive litters in a single season.

The best measure of a queen’s lactation is the body weight and daily growth of her kittens. The normal birth weight of kittens is approximately 100 grams and they should gain 10-15 g per day as neonates. A daily gain of less than 7 g is inadequate and should alert caregivers that supplemental feeding is necessary and/or health problems may be present. Lactating queens should be fed a high quality kitten food and should be provided with ample water, as their fluid requirements will be increased.

Whenever possible, both foster mothers and orphan kittens should be screened for FeLV and FIV prior to their introduction. Newborn kittens rely on passive transfer of maternal antibodies for protection against infectious disease during the first several weeks of life. In kittens, passive immunity results primarily from ingestingcolostrum (the new mother’s first milk), which is rich in immunoglobulins. Newborn kittens need to begin nursing right away in order to ingest a sufficient amount ofcolostrum within the first 12 hours following birth, after which time immunoglobulins can no longer be absorbed. Kittens that fail to nurse within 12 hours of birth should be isolated and can be vaccinated (using a killed product) at 2-4 weeks of age. Alternatively, SQ or IP injection of kittens with a total of 15 ml of serum over 24 hours from a FeLV/FIV negative, well immunized adult cat will provide adequate passive immunity. After 4 weeks of age, modified live vaccines are recommended.

The author recommends that kittens less than 6-8 weeks of age not be housed in the shelter as they invariably become seriously ill from infectious disease despite aggressive vaccination procedures and environmental management. Underage kittens should be removed from the shelter and placed in foster care within 48 hours of arrival or sooner whenever possible.

If a foster mother is unavailable, kittens may be hand raised. Hand raising kittens is time consuming and sometimes difficult. Kittens should be kept together in a warm nesting box (80 - 90°F) with soft absorbent bedding. Bedding should be changed daily or more frequently as needed to maintain proper sanitation; and caregivers should always wash their hands before handling orphans. Because kittens are reliant upon their mother for warmth during the first few weeks of life, orphans can rapidly develop hypothermia, which in turn will threaten their health. To ensure adequate warmth, various heat sources may be used including re-circulating hot water blankets, rice bags or hot water bottles. However, they should always be covered with towels or blankets and carefully monitored to prevent thermal injury. In addition, kittens should be able to crawl away from the heat source if they become too warm. The use of electric heating pads has been associated with serious burns in animals and should be avoided.

Because commercial milk replacement formulas for human infants and puppies do not supply the high levels of fat and protein that kittens require, formulas designed for rearing orphan kittens should be used. Warmed milk replacer (98-99°F) should be fed via bottle or, if kittens fail to suckle, a gastric tube may be used. The manufacturers instructions for preparation, feeding and storage should be carefully followed. A variety of small pet nurseries are available at pet supply stores and are appropriate for strong kittens with good sucking reflexes. The opening in the nipple should be a small hole or slit that will allow milk to very slowly drip from the bottle without squeezing it when it is inverted. The bottle should be held to allow the
kitten to suckle in a sternal position with the head in a natural position. Care must be taken not to squeeze the bottle because this can result in aspiration or milk may bubble out of the nose. Instead, tube feeding is the method of choice for kittens with a poor sucking reflex. It also offers the advantage of being much faster than bottle-feeding; and for this reason, it may be preferred even when kittens are willing to suckle. Tube feeding is a relatively simple procedure, and most caregivers can be trained to carry it out.

After feeding, palpating the stomach is recommended to be sure that it feels full, but not excessively distended or taut. Overfilling of the stomach poses a risk for aspiration, and overfeeding can result in diarrhea. For this reason, it is generally better to underfeed kittens in the first day or two and to modify the amount of formula fed by monitoring daily weight gains (eg. at least 10 g per day). In the first 2 weeks of life, kittens need to be fed every 2-4 hours around the clock, after which the frequency can usually be decreased to every 4-6 hours. All supplies used for feeding (eg. bottles, tubes, syringes and containers) must be carefully sanitized between feedings. After each feeding, the anogenital area of each kitten should be gently stroked with a soft cotton ball or tissue moistened with warm water to stimulate urination and defecation. Urine should be light yellow in color and feces should be firm and yellow-brown.

The mother-kitten relationship is crucial for normal social and emotional development; and orphans may fail to develop normal social skills and/or may have maladaptive responses to stress when hand reared. Suckling may occur among orphan littermates and they may nurse the tails, ears or genitalia of their littermates, occasionally causing significant trauma. Non-lactating queens or even a neutered tomcat may sometimes accept a litter of kittens and although hand feeding is necessary, the kittens will benefit from the standpoint of behavioral and social development. This is especially important for singleton orphans who would otherwise be deprived of both maternal and sibling relationships.

Although weaning may be accomplished by 6-8 weeks of age, it can be beneficial for kittens to remain with their mothers for a longer period of time when this is feasible. Queens frequently will not fully wean their kittens until 12 -14 weeks of age if left to their own devices. If older kittens are housed with their mother, it is important to provide a perch or other means of respite so she can periodically rest away from her young if she desires.

Kittens should be offered semi solid food beginning at 3-4 weeks of age in a flat shallow pan or dish. Gruel can be made from a quality kitten food and the addition of a small amount of formula will usually make it more enticing. Kittens typically walk in the gruel more than actually ingesting it for the first few feedings. But, within a few days their appetites will usually improve and the amount of formula they are receiving can be reduced accordingly. Weaning should be complete by 5-6 weeks of age as long term feeding of formula is not recommended.

Fading kittens

Fading kitten syndrome is a common term used to describe acute, rapid decline and death of young kittens during the first few weeks of life. Many causes are possible including genetic and environmental processes as well as infection with viral and/or bacterial agents. Regardless of the cause, prompt intervention will be necessary to prevent death. When kittens fade or die abruptly, consideration should be given to testing for panleukopenia virus (feline parvovirus). Commercially available tests for canine parvovirus can be used for the diagnosis of panleukopenia in cats. If panleukopenia is the culprit, steps to limit infection in the population will be warranted.

Although necropsy of kittens that have died is often the best tool for making a definitive diagnosis, in many cases it is not rewarding and a cause of death may remain undetermined. Bacterial septicemia is among the most common causes of fading kitten syndrome in pre-weaning kittens and prompt veterinary intervention can be life saving in these cases. Because of their immature immune systems, kittens are at risk for bacterial infection originating from their gastrointestinal or respiratory tract or via their umbilical site. Providing immediate warmth and ensuring hydration and nutrition (eg. administration of warm SQ fluids and tube feeding) are crucial priorities in treating fading kittens. It is common for one or two kittens in a litter to fade, followed by others over the course of a few days. When one member of the litter is affected, it is generally prudent to aggressively treat the remaining littermates. If examination does not
reveal an apparent cause and parvoviral testing is negative, a presumptive diagnosis of septicemia can be made. In this case, if treatment is elected, the author recommends providing aggressive supportive treatment to all remaining littermates including the administration of broad-spectrum antibiotics (such as enrofloxacin) by SQ injection. Administration via injection is preferred to oral administration to ensure absorption. Treatment of fading kittens in the shelter is problematic however, because of the high likelihood of exposure of the kittens to other infectious agents that could further compromise their health as well as the risk that could be posed to the general population. If orphan kittens are treated in the context of a shelter, success is most likely when treatment is reserved for those in skilled foster care under veterinary guidance. In addition, this will pose the least risk to the general population should a contagious agent be the underlying cause.