



## *Orphaned Kitten Care - How to Videos*

### **Video Transcript**

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### **Video 1: Giving Orphaned Kittens Oral Probiotics**

*[Beginning of Audio]*

*Dr. Peek:* It is not uncommon for orphaned kittens to develop diarrhea. The diarrhea could be from stress, infectious disease or from digestive upset from dietary changes. You'll want to make sure your kitten has been examined by a veterinarian to treat any infectious problems, and to discuss a treatment plan. Giving probiotics may help normalize an orphaned kitten's intestinal flora while they are recovering from diarrhea. It may also help prevent or reduce the severity of diarrhea from dietary changes and stress.

There are several options for treating orphaned kittens with probiotics. If the kitten is weaning to solid food you can add the probiotic to the food source. If the kitten is still bottle-feeding you can give the probiotic orally before or after feeding.

The two types of commercially available probiotics I have used include FortiFlora<sup>R</sup> made by Purina Veterinary Diets and Small Animal Bene-Bac<sup>R</sup> (Beneficial Bacteria) made by PetAg.

FortiFlora is a nice product to mix into solid food. Mix one packet of FortiFlora into slightly watered down canned food, then offer it to the kitten. If the kitten isn't eating much you can mix the FortiFlora into a small amount of the canned food, then place some of the food using your finger onto the kitten's tongue.

Bene-Bac can be syringe-fed to bottle kittens. Using the tube of Bene-Bac, draw up the desired volume and then syringe feed about 0.3 mls by placing the contents onto the kitten's tongue. The product is thick and sticky, so the kitten shouldn't be able to spit it out too easily.

You should follow the advice of your veterinarian on how frequently to administer probiotics. Typically they are given daily to twice a day depending on the severity of the kitten's condition.

*[End of Audio]*

## **Video 2: Stimulating an Orphaned Kitten to Urinate and Defecate**

*[Beginning of Audio]*

*Dr. Peek:*

Orphaned kittens under the age of 3 to 4 weeks will need your assistance to urinate and defecate, as they are reflex eliminators. This video will go through the steps to help your kitten eliminate properly.

Orphaned neonatal kittens will need stimulating after every feeding, so be sure and have your equipment handy before you begin feeding. The equipment you will need includes clean cotton squares or paper towels, warm water and a container or cloth for the kitten to eliminate over

When you finish feeding and burping your kitten, position the kitten in one hand with his belly cupped in the palm of your hand and not on his back. Dip the cotton square into the warm water then very gently stimulate the kitten's anus and urethral area in a circular or side to side motion with your other hand.

You can position the kitten over a garbage can or over several layers of paper towel to catch the urine. As the kitten gets older you can position him over the litter box. Continue stimulating for about 10 seconds after no more urine is coming out to give the kitten an opportunity to defecate as well and to make sure the kitten's bladder is empty. Kittens need continuous stimulation to eliminate their bladder completely.

The urine should be dilute yellow. If the kitten is ready to defecate he will display some abdominal effort. Be patient and gentle while you wait for him to finish. Kittens typically defecate every 24 to 36 hours and the stools should be brownish yellow, slightly firm to tooth paste in consistency. If the kitten has loose stool or diarrhea she may strain after she is finished defecating. Be sure and address loose stool and diarrhea with your veterinarian to avoid rectal prolapse from too much straining. If the stools are too firm and the kitten seems constipated the kitten may be dehydrated and this too should be addressed by your veterinarian.

Gently dab the kitten's area dry after he is finished eliminating to help keep the kitten clean. You can use a warm damp cotton square or paper towel to clean up after defecation.

*[End of Audio]*

### **Video 3: Weaning Orphaned Kittens onto Solid Food**

*[Beginning of Audio]*

*Dr. Peek:* Weaning orphaned kittens off formula and onto solid food is an exciting time – especially since this means you may be able to get more sleep at night!

Kittens can start the weaning process around 3-4 weeks of age as their teeth start to come in – they especially enjoy the opportunity to gnaw on something to ease the discomfort of teething.

As exciting as it may sound, adjusting to solid food can be a stressor to the kitten's digestive system. So, try not to rush this process.

Crushed dry kitten food and Royal Canin Babycat are good options for dry food. Place a small amount of dry food in the kitten's environment and let the kitten experiment with eating it. You will find that they don't consume a lot of the food, but they will pick and gnaw on it, which will help get them started. I have used small ceramic hamster bowls to put the food in as it is less likely to be tipped over and the size is perfect for tiny kitten faces. I have also offered dry food that has been soaked in warm water as an option.

When feeding canned food, try and select a higher quality canned food without a lot of gravy, chunks and fillers. You can dilute the food down with a small amount of formula or water to make it into a thick gruel. I like to water the food down at a ratio of 1:3 water to canned food so it isn't too watery. If the mixture is too watery the kitten may inhale the food into his nostrils, which may be startling and painful for the kitten or he may even aspirate the food. Pick a small ceramic hamster bowl for this

to prevent excessive spillage and mess. Large bowls will enable the kitten to put her feet into the bowl and kneed the food while she is eating, making a huge mess and perhaps chilling the kitten. If you have more than one kitten you may want to have multiple bowls on hand for feeding.

You can try syringe feeding a small amount of food to get her started.

Continuing formula during this transition time is important to ensure the kittens are getting the proper calories for growth. If the kitten's digestive system is not handling the cow-based formula well, you may want to speed the weaning process up. Adding a probiotic may help the kitten's digestive system adjust. Otherwise, as long as the kitten is doing well on the formula, take your time. Slowly transition the kitten from formula to solid food over several weeks. When the kitten is eating solid food reliably well and tolerating the food, you can start to reduce the number of bottle feedings (and skip those night-time feedings!).

*[End of Audio]*

#### **Video 4: Bathing an Orphaned Kitten**

*[Beginning of Audio]*

*Dr. Peek:* As you enter into the world of orphaned kitten care you will soon realize that it is necessary to bathe your cat. Orphaned kittens are messy and

without their mother they can become covered with stool or food pretty quickly.

There are several options when it comes to bathing kittens. Spot baths are preferred over full baths as it is less of a chill-risk to the kitten and less complicated. However there are certainly times when a full bath is warranted.

Spot dry-baths are useful when a kitten has a localized area that needs cleaning and simply involves wiping the area gently with a slightly dampened cotton square or paper towel. Spot dry-baths do not involve soaking the area down to the skin, but still require drying the dampened fur with a clean towel to prevent chilling.

Spot wet-baths and full baths are more involved and require some set up beforehand.

Spot wet-baths involve cleaning a select area of the kitten (for example the rear end) with a warm water rinse and shampooing as needed. Spot wet-baths are quicker than full baths, but still require care to dry the kitten with warm towels or a hair dryer so the kitten doesn't get chilled.

For a full bath, you will need very mild, tearless shampoo for kittens, a wash cloth or paper towels, a wash sink or wash basin filled or running with warm water at a temperature of about 95 F, several clean cotton towels (pre-warmed in a dryer if possible), and a hairdryer.

Step 1 involves pre-warming the kitten's environment so it has a warm and cozy place to be after the bath is finished. You can do this with a room heater or heating pad. Then, make sure to set everything out around the bathing area before you get started. You may want to pour shampoo into a container for easy access ahead of time.

Next, gently and securely hold your kitten in one hand while soaking the kitten with warm water and massaging shampoo into the kitten's fur with your other hand. You can use your hand or a washcloth to help remove debris from soiled fur, being extra gentle not to abrade the kitten's skin. Never include the kitten's face in a full bath and never use shampoo on the kitten's face. If the kitten's face is soiled you can use the spot dry-bath method for cleaning.

Step 3 includes rinsing the kitten thoroughly to remove all the shampoo, and then quickly wrapping the kitten in one of the pre-warmed towels.

Dry the kitten with a warm hairdryer set on low, carefully moving the air actively around the fur to avoid burning the kitten's skin. Most kittens tolerate this well and appreciate the warmth of the hairdryer. Make sure the kitten feels completely dry down to the skin before finishing.

*[End of Audio]*

## **Video 5: Bottle Feeding an Orphaned Kitten**

*[Beginning of Audio]*

*Dr. Peek:* One of the most heart-warming experiences when taking care of orphaned kittens is bottle-feeding them – especially if it goes without a hitch! Bottle-feeding does require some planning ahead of time to set yourself and the kitten up for success.

The first step in feeding an orphaned kitten is getting an accurate weight, before attempting to feed. This is important so that you don't overfeed the kitten. Feeding kittens free choice, may result in regurgitation, aspiration and diarrhea if they consume beyond their stomach capacity.

Underfeeding can result in poor weight gain which is a risk factor for increased mortality

The next step involves calculating your kitten's stomach capacity to determine the daily caloric requirement. To compute this exactly there is an excellent chart available on our website called Feeding and Stomach

Capacity Table. Here is the web address to access this chart (pause few seconds before moving on so people have a chance to write it down).

Step 3 involves preparing the equipment. Select a nipple that is the correct length for your kitten's mouth and not greater than 5/8" in length.

Anything longer may place the nipple too far back in the kitten's mouth, risking aspiration of the milk.

There are several options to prepare the nipple. You can poke a hole in the nipple with a hot needle or you can cut a snip in the tip of the nipple. My preference is to use the snip method. The goal is to allow a slow drip from the bottle with a slight squeeze. Avoid cutting too far down the nipple as that may create a stream of milk coming out too quickly.

You should also have a bottle and a syringe for measuring out the milk. I don't recommend feeding with a syringe as you may inadvertently syringe too much milk in for the kitten to swallow, which may also result in aspiration of the milk. Thoroughly clean the equipment in very hot soapy water or boiling water and allow them to dry completely.

Next, follow the instructions on the formula to prepare the milk. Most powdered commercial milk replacers will have you dilute one part powder to two parts water. However, you may want to dilute the milk for the first

few feedings using an oral electrolyte solution low in sugar like Pedialyte, or water. This will ease the kitten's digestive adjustment to formula.

The milk should be warmed up to about 100 degrees Fahrenheit (approximately the mother cat's body temperature). Avoid warming the milk up in the microwave. Instead, warm the milk by placing it in a warm water bath. You can warm the water bath in the microwave, then soak the milk in the water bath for a few minutes (or however long it takes to warm the milk up to about 100 F). You can test this easily by dripping it on your wrist. Measure out the calculated volume using the syringe or measurements on the side of the milk bottle. Try not to go beyond the calculated volume for stomach capacity – even if the kitten still appears hungry after feeding.

An important part of this step is making sure the kitten is not chilled before feeding. Kittens that are chilled tend to be less responsive and not as interested in nursing. Follow these steps to position your kitten before feeding. The kitten should be in a sternal, upright position (not cradled like a human infant). The neck should be slightly flexed and stretched out like he is reaching for its mother's nipple. Try not to allow the kitten to extend her neck back as that will shorten the gullet and predispose the kitten to aspiration of the milk. Some kittens will prefer to stand up which

is fine so long as the kitten's neck isn't crimping. You can also wrap the kitten in a blanket like a burrito allowing only his head to stick out.

Now for the fun part – feeding your kitten! Check the temperature of the milk once again by dripping a few drops of milk onto your wrist.

Sometimes the rubber will stick after cleaning, so make sure to unstick the rubber openings when preparing the bottle by dripping a few drops of milk out before feeding. If the milk feels hot to your wrist it may be too warm. Cool the milk by swirling it around the bottle and check again before attempting to feed. If the milk feels too cold the kitten may refuse to nurse.

Next, allow a drop of milk to drip onto the kitten's tongue. The kitten should latch on pretty quickly, but it may take a few attempts before she figures it out. Be careful not to squeeze the bottle and stream milk into the kitten's mouth as the kitten may aspirate the milk. Continue to carefully drip milk onto the tongue without it streaming.

Many kittens will get very vigorous with their front legs and accidentally knock the bottle out of their mouth. The key is to hold the kitten gently and move with the kitten as necessary. Don't hold the kitten too tightly.

If, after a few attempts the kitten does not latch on, don't force the feeding. Make sure the kitten is warm enough and the milk is warm enough and try again. If the kitten is warm enough try again in a half hour to an hour. Some kittens will skip a feeding once in a while, but if this becomes a pattern throughout the day, then you may have a sick kitten that needs veterinary attention.

Make sure to burp and stimulate your kitten after each feeding until such time as it is able to urinate and defecate on its own.

The last step in feeding your kitten involves clean up. Be sure to thoroughly wash all the equipment between feedings with very hot soap and water and allow them to dry completely.

Extra milk can be stored in the refrigerator for up to 24 hours. Try not to store it more than 24 hours if possible. Formula is an excellent breeding ground for unwanted bacteria.

You can check out the “Orphaned Kitten Feeding and Stomach Capacity Table” and “Orphaned Kitten Feeding Issues, Consequences and their prevention” chart on Maddie’s Institute website for more information.

*[End of Audio]*

## Video 6: Examining an Orphaned Kitten

*[Beginning of Audio]*

*Dr. Peek:* Caring for orphaned kittens is exciting and rewarding work! When you are first presented with an orphaned kitten it is a good idea to do an exam to gather baseline information on that kitten. Record your findings and have a written record for each individual kitten. The steps involved in examining an orphaned kitten should include:

Step 1, estimating the kitten's age. You can use weight, teeth and other significant events such as eye opening to help. You can use the chart developed by the University of Florida as well as other resources located on Maddie's Institute's website. Keeping kittens less than 2 weeks of age warm is important during the examination as they cannot thermoregulate normally yet.

Step 2, checking the kitten's attitude. Is the kitten bright, alert and responsive to you? If the kitten is quiet or dull, check its temperature to make sure he isn't chilled. Kittens under the age of 2 weeks cannot regulate their own body temperature and will need an outside heat source to stay warm. At first, chilling may cause the kitten to cry a lot, but this will progress to being quiet and dull.

Next, check the kitten's body condition, muscle tone and coat condition. The kitten should be plump and round with good body symmetry. The muscle tone should be strong. And, the coat should be shiny and free of debris. Check the umbilical area for any pain, redness or swelling

Step 4; always make sure to weigh your kitten during the initial exam and frequently thereafter. Weight is a good indicator of how healthy your kitten is. Under weight kittens will need special attention and do not tend to thrive without extra care. Kittens under 2 weeks of age should be weighed twice a day. Kittens 2 to 4 weeks of age should be weighed daily, ideally at the same time each day.

The next step involves getting a rectal temperature on your kitten. This is an important, but tricky step and care should be given not to harm the kitten. Make sure to use a quick reading thermometer and lots of lube. Don't insert more than the tip of the thermometer. If the kitten is really fighting this, then don't force it.

Next, if you have a stethoscope you can check the kitten's heart and respiratory rate. The heart rate of kittens should be in the range of 220 to 260 beats per minute. Heart rates will slow down when a kitten is chilled. The normal respiratory rate of kittens at birth is about 10-18 breaths per minute. After one week of age the rate increases to 16-32 breaths per

minute. Respirations should be regular and not take a lot of effort and the nasal airway should be clear of mucus or discharge.

As you are looking over your kitten, check a few reflexes. Kittens between 0-14 days should have a rooting reflex to look for the nipple and a suckle reflex. You may also see a righting reflex.

Step 8 involves looking in the kitten's mouth. Check for any abnormalities to the palate. A cleft palate is a birth defect, which will make it very difficult for the kitten to consume milk. Check the kitten's mucus membranes to make sure they are pink, moist and slippery. Dry, tacky or dark pink mucus membranes may mean the kitten is dehydrated or sick.

Next, check the kitten's eyes and ears. The eyes open in kittens at around 8-10 days of age. The ears open around the same time. Make sure the eyes and ears don't have any discharge and are not swollen or painful. If you see anything abnormal in either be sure and have it addressed quickly by a veterinarian.

Step 10 involves checking the kitten's rear to make sure everything is present and accounted for. Male kittens will show two dots – an anus and

a urethral opening. Female kittens will have an anal dot and a line that is the urethral opening. These are closer together in females than in males.

Next, you can try feeding the kitten to check his appetite. If she is a bottle baby, then consider diluting down the first few feedings with water or an oral electrolyte solution low in sugar. Dietary changes are upsetting to a kitten's delicate digestive system. Once you've fed the kitten, if he or she is under 4 weeks of age, they will need help from you to eliminate.

Stimulate the kitten to check for urination and defecation. Kittens should urinate after every feeding and defecate about every day to day and a half. The urine should be dilute yellow. If it is more concentrated the kitten may be dehydrated.

Remember to write down all your findings in a record on each individual kitten. You can use this information to calculate nutritional needs and as a guide throughout the kitten's care with you. Check out the weight and feeding charts and references on the Maddie's Institute website for more information.

*[End of Audio]*