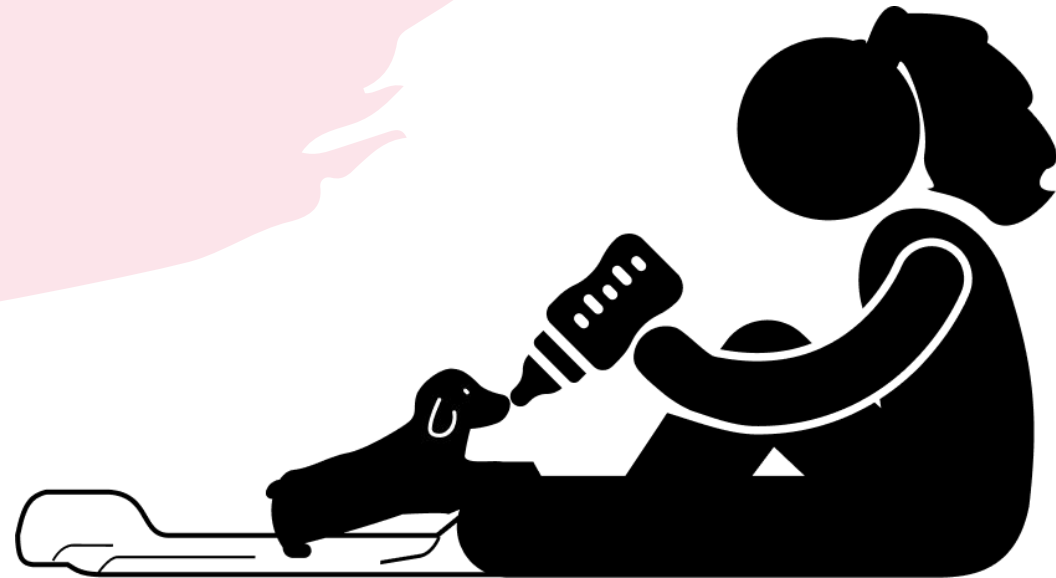


# *Care and Feeding Guidelines* *for Orphaned Newborn Kittens and Puppies*

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# *Indications*

- Became orphaned
  - Due to Mom's illness or loss
  - Rejection of babies by Mom
- Under 3 weeks of age
- Older than 3-5 weeks of age but having difficulty weaning

\*Kittens and puppies should receive at least 2-3 days of Mom's milk. This is when they get colostrum to help babies fight disease.

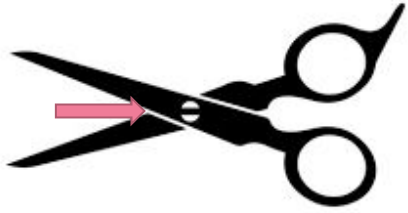
\*Surrogate Moms are preferred over bottle feeding



# Gathering Supplies

- Scale and log sheet
- KMR (Kitten Milk Replacer) or Esbilac for puppies
- Zip Lock bag or sealable container
- Bowl of hot water
- Bottle and variety of nipples (try 1<sup>st</sup>)
- Miracle Nipple & 3 ml syringe
- Cotton balls or baby wipes
- Heating pad on low, heat disc, rice bag, microwavable ice pack
- Bin with sides if feeding from a countertop or table
- Might need: thermometer, karo syrup





## ***Testing Your Supplies***

- For a new nipple, cut a “+” across the tip of the nipple using the inside of the scissor’s blades closest to the screw- small scissors
- Then add water to the bottle and hold upside down. Without squeezing the bottle, there should be no more than a drop per second
- **If a stream of fluid is seen, discard the nipple**
- Have a variety of nipples on hand but consider length: baby size
- Miracle Nipples do not require adjustment
- \* **Never pair a Miracle Nipple with a bottle!**



## ***When to Feed***

When baby is warm; > 95 degrees F

Preferably when baby wakes hungry

Following stimulation to replicate mother's nurturing and grooming

According to timeline based on age

# *Feeding Timeline*

- **Up to 2 weeks of age**  **Every 2 hours**

And can usually go **4 hours overnight** without eating

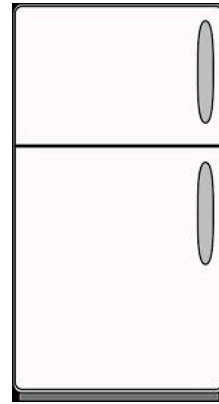
- **2 weeks of age to weaning**  **Every 4 hours**

And can usually go **6 hours overnight** without eating

\* This can vary; crying and suckling on littermates are signs of hunger that should not be ignored.

\* If suckling on genitals of littermates continues, babies must be separated! Damage to genitals can require surgery or can lead to death of baby.

# *Handling Milk Replacer Formula*



- Store dry powder in the freezer (up to 6 months once package is opened)
- Only mix enough formula for a 24-hour period and store in fridge for up to 24 hours.
- Formula left at room temperature for more than 1 hour should be discarded
- Liquid formula cannot be microwaved
- Follow strict hygiene measures for hands and all feeding equipment

# ***How Do I Mix the Formula?***

- Decide how much liquid formula you will need for all of your bottle babies for the next 24 hours.
- The powder can be added to a Zip Lock bag or sealable container such as a mason jar.
- The hot water can come from the tap or be water can be heated in a mug in the microwave.
- Combine the powder and hot water into the sealable container.
- Gently mix. Do not use a blender.
- Be sure that there are no clumps of powder remaining.
- To maintain the temperature of your liquid formula or to rewarm, place your sealed container of formula in your bowl of hot water.
- You can use a syringe or funnel to transfer your liquid formula to your bottle(s) or it can be drawn up using your Miracle Nipple syringe. Then place them into the hot water bowl to keep warm.
- \*Always test a drop of formula on your wrist before feeding to be sure it is warm but not hot.





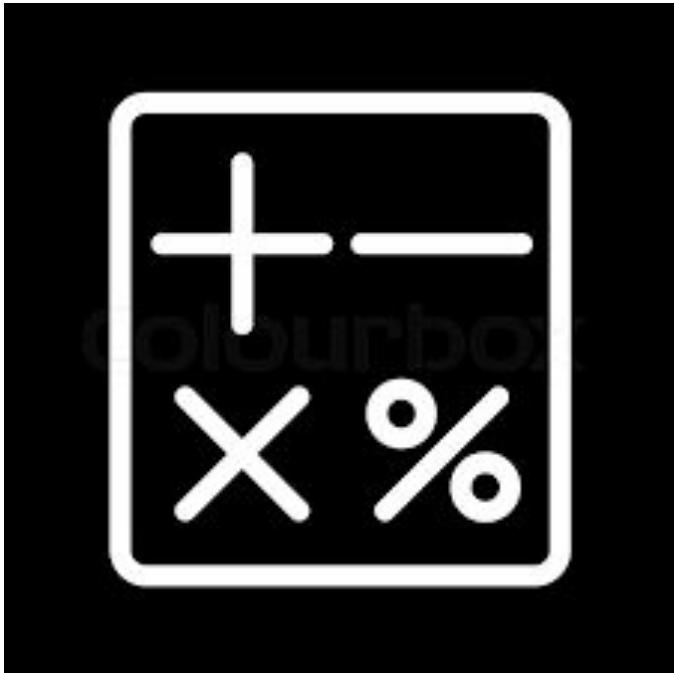
# *Calculation Example #1*

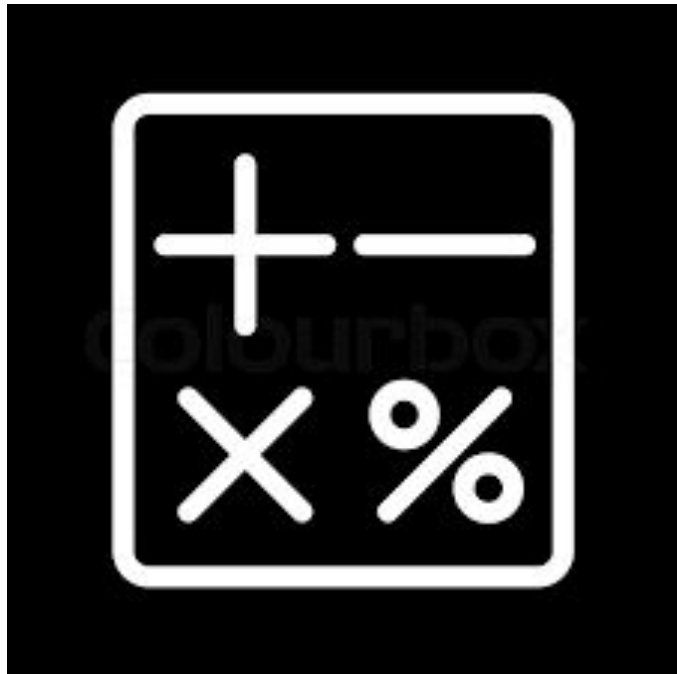
Your 2-day-old kitten weighs 95 grams (g):

- 1)  $95 \text{ g} / 28 = 3.4 \text{ ounces (oz)}$
- 2)  $7.5 \text{ ml} \times 3.4 \text{ oz} = 26 \text{ ml per day}$
- 3)  $24 \text{ hours} / 2 = 12 \text{ feedings per day}$

{When baby is 2 days old, he will need to be fed every 2 hours and can usually go up to 4 hours overnight without eating. This will eliminate one meal. Then you will have **11 feedings per day**.}

- 4)  $26 \text{ ml per day} / 11 \text{ feedings per day} = 2.4 \text{ ml per feeding}$





## *Calculation Example #2*

Your 3-week-old puppy weighs 800 grams (g):

- 1)  $800 \text{ g} / 28 = 29 \text{ ounces (oz)}$
- 2)  $7.5 \text{ ml} \times 29 \text{ oz} = 218 \text{ ml per day}$
- 3)  $24 \text{ hours} / 4 = 6 \text{ feedings per day}$

{At 3 weeks of age baby needs to be fed every 4 hours and can go for up to 6 hours overnight without eating. Waiting 6 hours overnight will not affect our calculation.}

- 4)  $218 \text{ ml per day} / 6 \text{ feedings per day} = 36 \text{ ml per feeding}$



***How Much  
Formula  
Should I Mix  
Up for My  
Bottle Babies?***

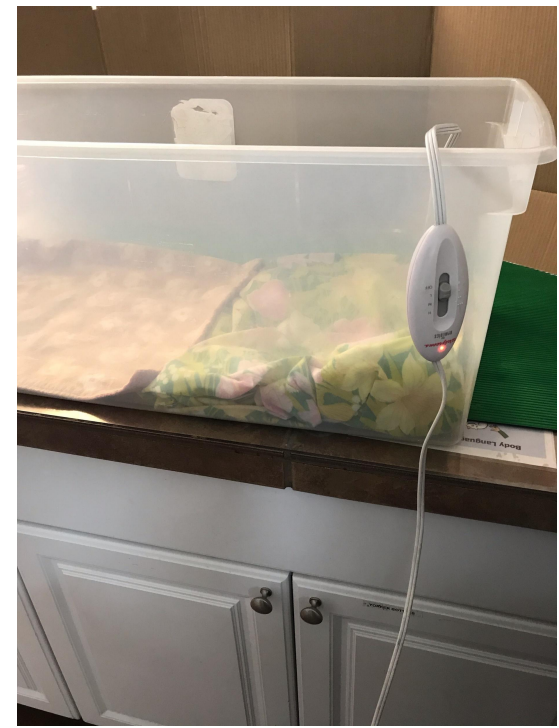
**When formula is mixed in the ratio of 1 part powder to 2 parts warm water:**

{A part can be a teaspoon, tablespoon, cup, etc.}

- 1 teaspoon of powder will yield  
~ 8 ml of liquid formula
- 1 tablespoon of powder will yield  
~ 34 ml of formula
- 1 cup of powder will yield  
~ 585 ml of formula

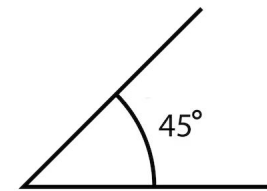
# *Puppy and Kitten Positioning*

- Remember to either feed on the floor or if on a countertop or table, the babies must be in a container with sides to prevent falls
- Keep baby on a heating pad or heat source (on low)
- Baby should be in a natural “standing” position (not on their backs)
- Gently support their heads with your fingers under either side of the jaw
- Rooting and kneading with their front legs is normal, so they may choose to support themselves with their back legs only & arms outstretched



# *Proper Bottle Use*

- Be careful not to screw the lid too tightly onto the bottle
- Notice the graduations on the side of the bottle before you begin feeding so you can keep track of the amount of formula each pet ingests per feeding
- Always test formula temperature on wrist first
- The bottle must be held at a 45-degree angle, or wider depending on the amount of formula inside
- It is important that the angle of the bottle is adjusted as baby ingests formula to avoid air being swallowed
- Never squeeze the bottle



Hold bottle at 45-degree angle



# *Proper Miracle Nipple Use*

- Pair Miracle Nipple with 3 ml syringe only
- Be sure that there is no air in the syringe
- Always test formula temperature on wrist first
- Baby should pull the plunger as he eats, rather than moving the plunger for them



# ***Weighing and Weight Gain***

## **Puppies**

- Should gain 10% of their body weight each day. (This will vary daily)

Ex: On Monday, the brown puppy weighed 250 g. On Tuesday he weighs 275 g.

1.  $275 - 250 = 25$  g difference

2.  $\frac{25\text{g}}{250\text{g}} = \frac{X}{100}$

3.  $25 \times 100 = 2500$

4.  $2500 / 250 = 10\%$  (weight gain Mon to Tues)

- Weigh them at the same time of day, preferably morning, before feeding.
- Keep a daily log of each puppy's weight and how much they ate. There are lines on the bottles to help.

## **Kittens**

- Should gain 10-15 grams per day (This will vary daily.)
- Weigh them at the same time of day, preferably morning, before feeding.
- Keep a daily log of each kitten's weight and amount of formula eaten at each feeding.

# ***Troubleshooting: Baby Won't Eat***



Try burping baby

Try stimulating to urinate or defecate prior to feeding (details in later slide)

Check temperature of formula- be sure to continue to rewarm formula in bowl of hot water

Check temperature of baby

Bottle cap screwed on too tightly?

Nipple hole not large enough?

Clog at nipple opening caused by clump in the formula?

Try coating nipple in karo syrup

Try adding karo syrup to the formula

Have you snuggled baby and simulated mother's grooming?

Wait 30 minutes and try again

Try carefully giving one drop via the Miracle Nipple- did baby swallow? Eye droppers and syringes are last resort.

**Is baby weak, cold to the touch, limp? Warm the baby & apply karo syrup to the gums. Call your veterinarian!**

# *After Feeding*

- Stimulate to urinate and defecate (before and after feeding) using **only** either wet cotton balls or baby wipes. Tap or lightly rub over the genitals and then the anus. Keep them clean using cotton balls or baby wipes.
- Burp
- Clean their faces or anywhere formula is left on the body
- Record the amount each kitten ate on a log
- Clean all feeding supplies with hot water and dish soap after each feeding and sanitize supplies items every 24 hours.



# Accidents



- Baby is accidentally given a large mouthful of liquid formula at once:

Immediately tip baby upside down with his nose to the ground

Try to clear any remaining liquid from the mouth with a cotton ball or cloth

Be sure that the mouth is clear and baby is breathing normally before continuing to feed

Monitor for changes in breathing or nasal discharge and call your veterinarian if seen

- Milk is coming from baby's nose while feeding:

Baby is likely eating too fast- use a nipple with a smaller cut opening



# *Special Considerations*

- For cases of starvation, missed meal, following an instance of fading:
  - Feed 50% volume for first feeding
  - Gradually increase to normal volume over the next 4 feedings
- Diarrhea:
  - Dilute formula to 1 part powder to 4 parts warm water for the first 4 feedings (1:4)
  - Then 1:3 for the following 4 feedings
  - Lastly return to the 1:2 ratio
- Prolonged diarrhea:
  - Mix powder with unflavored Pedialyte instead of water for 24 hours
  - Try an alternate milk replacer brand

# *Other Issues*

- Over feeding: diarrhea, constipation (no feces for 48 hours), white or very pale stools
- Underfeeding: dehydration, potential to fade, delayed development
- URI (upper respiratory infection) signs: difficulty feeding



# *Housing Orphaned Neonates*

- Create a covered nesting box such as a pet carrier covered with a towel
- Provide a heating pad that doesn't cover the entire floor of the carrier
- Cover the heating pad in something made of thin fabric such as a pillowcase
- Supplement humidity when possible
- Add stuffed animal to nesting box



# ***When to Be Concerned***

- Baby is not feeding for 6 hours
- Inadequate weight gain for a 2-day period or weight loss
- Fading neonate: weak, head-bobbing, wobbly, limp, cold, twitching- Warm baby with heating pad and apply karo syrup to gums.
- Diarrhea for 48 hours
- No feces for 48 hours or straining to defecate
- Red or ulcerated genitals
- Upper respiratory infection (discharge from nose and/or eyes) or any other signs of illness
- Breathing changes
- Injury

Contact your veterinarian!

# Milestones and Life Stages

## Puppy:

- Neonatal: 0-2 weeks- can touch and taste at birth. Socialization is influenced by mother.
- Transitional Period: 2-4 weeks- eyes open, they start walking; hearing and smell develop, teeth start erupting. Socialization is influenced by littermates.
- Socialization Period: 4-12 weeks- rapid growth. Learn how to walk, run, bark, and wag tails. At 8 weeks their brains are ready to absorb information. Puppy socialization with other people, dogs, new environments, and sounds is very important at this stage. Puppies should not be outside or in public until at least 20 weeks of age due to risk of disease- high risk for parvo and distemper in the environment.
  - \*Most important time for humans to handle puppies.
  - \*Puppy training begins.
  - \*Puppies should stay with Mom and littermates until 8 weeks of age.
  - \*Vaccines are started at 6-7 weeks and are given every 2-4 weeks to 16 weeks of age (for puppy series; adult vaccines start at one year of age.)
- Adolescence: Behavioral changes caused by hormonal changes. Regression in training, fearful behaviors, challenging boundaries, and chewing.
  - \*Sexual maturity and mating can range from 4-12 weeks of age.
  - \*Speak to your vet about the right time to spay or neuter.

## Kitten:

- Neonatal 0-2 weeks- cannot regulate body temperature, eliminate on own, or groom. Minimal handling. Eyes open.
- Socialization Period 2-7 weeks- By the 3<sup>rd</sup> week sense of smell is developed; they will start to interact with littermates; Walking begins and teeth start to erupt. By the 5<sup>th</sup> week sight is fully mature, they can right themselves, run, place their feet precisely, stalk, pounce, start to groom themselves and littermates. By the 6<sup>th</sup> and 7<sup>th</sup> weeks they begin to develop adult sleeping patterns, motor abilities, and social interaction.
  - \*Most important time for humans to handle kittens.
  - \*Kittens should stay with their Mom and siblings until 8 weeks of age.
  - \*Kittens and cats should be kept indoors life-long.
  - \*Vaccines are started at 4-6 weeks of age and are given every 2-4 weeks to 16-20 weeks of age. The next vaccines start at 6-12 months of age.
- Most active play period 7-14 weeks
- Ranking period 3-6 months- most influenced by littermates- ranking within the household develops
  - \*Kittens can reach sexual maturity at 4-6 months of age.
  - \*Speak to your vet about the right time to spay or neuter.
- Adolescence 6-18 months- Heightened exploration of dominance including challenging humans. Behavior changes due to hormones such as roaming, fighting, and urine spraying.

# Socialization Checklist

SOCIALIZATION PERIOD (4-12 WEEKS)



1. Different people

2. Other vaccinated, friendly dogs

3. Various surfaces

4. Common sounds

5. Car rides

6. Gentle grooming and handling

7. Different environments

## Kitten Growth Chart

