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"If you are traveling with an infant"...

Early Age Care for Foster Animals



Developmental Stages



- Neonatal
 - *Most fragile and susceptible*
 - *Highest mortality risk – but...*
- Transitional
- Socialization



Developmental Milestone Checks

Birth / Neonatal

- ☐ Any Physical Abnormalities
- ☐ Mobility
- ☐ Healthy, healing umbilicus
- ☐ Skin color pink and healthy
- ☐ Body condition
 - ☐ 90-100g (80-140g) for kittens
- ☐ Suckling
 - ☐ Good belly tone
- ☐ Did orphan or weak babies ever nurse?
- ☐ What does mom think?
- ☐ Urination
- ☐ Defecate
 - ☐ Cannot pee or poop voluntarily until 3 weeks of age!

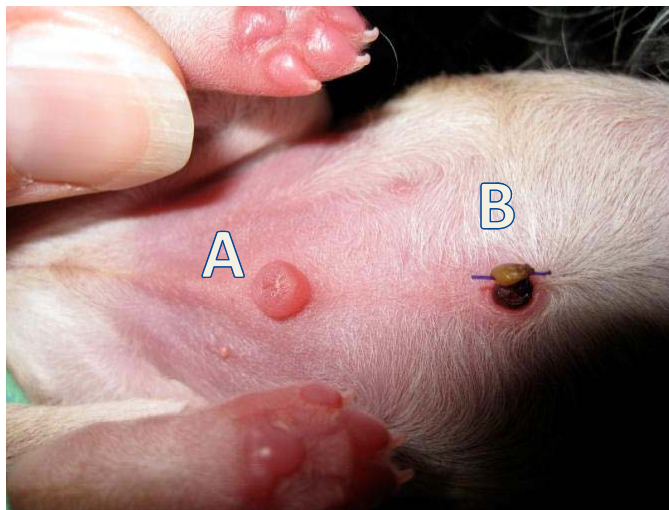


Day 1



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Where is the umbilicus?



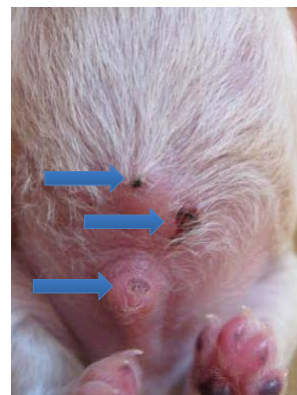
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Umbilicus at Day 5



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What's wrong in this picture?



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What's right in this picture?

Nursing with reckless abandon!



Excellent belly tone!

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Nursing vigor



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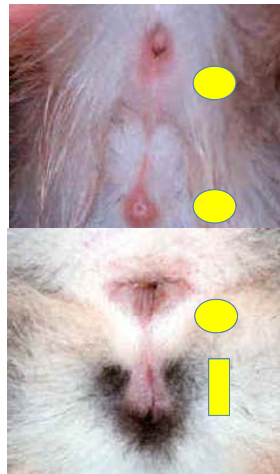
Gender checking puppies



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Feline gender check

- Males
- Two round orifices
- Looks like a colon
- Females
- One round, one slit like
- Looks like a semi-colon?



www.vetmed.wsu.edu

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Developmental Milestones

- 10-14 days / moving into transitional
- Eyes opening
 - ☐ No discharge?
 - ☐ No conjunctival inflammation?
- Ears opening
- More intentional moving (squirming) about?
- Wobble is normal
- Start de-worming at 2 weeks (pyrantel pamoate)



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Growth expectations

- Puppies
 - 5 -10% of body weight
- Kittens
 - Double their body weight in 14 days
(50 - 100 g / week)
- Always increasing
- Some individual variation



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Milestones vary



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Locomotion



Day 5

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Development Milestone Checks

Week 3-4 / Transitional

Day 39

“Mikie”

- ☐ Continued weight gain
- ☐ Nervous system developing
- ☐ Vision and hearing developing
- ☐ Blue eyes
- ☐ Incisors erupt, then canines
- ☐ IgG production
 - Growing immune system
- **Voluntary elimination about 3 weeks**
 - introduce litterbox to kittens
- **Thermoregulation by 4 weeks**



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Developing nervous systems



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Development Milestone Checks

Week 4 / **Socialization Stage**

- ☐ Key socialization period begins
 - ☐ 4-12 weeks
- ☐ Eye color transition
- ☐ Vaccination may start



Week 5

- ☐ Hunting, pouncing, wrestling, peer socialization



Week 6-8 / **Menace to Society**

- ☐ Adult kidney function by about 8 weeks

Neurologic development



Day 39

Key Socialization Period

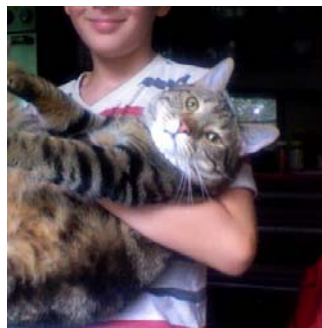
- 4-12 weeks of age
- Humans and animals
- Some handling prior to 4 weeks
 - Brief, but frequent
(if mom's there)
- Gentle
- Calm and quiet
- Facing you?



“Bella, Mae, and Nut”

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Tough love



- Food is not food, food is love
- Hand feeding saves lives!

Resource: <http://www.youtube.com/watch?v=vpEcxlgMhyQ>

- Urban Cat League
- Kitten socialization videos (3 parts)

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Feral Cats Anonymous



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Let them interact, explore, and socialize

- ☐ Regular handling
- ☐ Exercise
- ☐ Meet new people
- ☐ Meet kids
 - ☐ with supervision
- ☐ Play with littermates
- ☐ Interact with other animals
 - ☐ with supervision
- ☐ Explore new places
- ☐ **Spend quiet time with humans!**
- ☐ And other animals too.

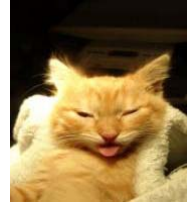


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6 weeks or 8 weeks

Week 6

- ☐ Weaning?
- ☐ Spay/ Neuter weight?
- ☐ Legal adoption age?



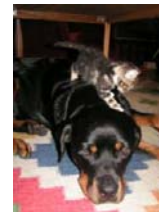
"Dr. Milky post-surgery"

Week 8

- ☐ Weaning?
- ☐ Spay/ Neuter weight?
- ☐ Legal adoption age?

To wait or not to wait?

- Depends on so many factors
 - Extra time may hurt chances for adoption
 - Extra time may cause a system log jam
 - Leaving the shelter sooner may be protective
 - Chances for socialization may be better in a home



Providing Care

- Foster homes
- Shelter Nurseries



The Kitten Nursery at
San Diego Humane
Society and SPCA



Priority Care Issues

- ☐ Thermoregulation
- ☐ Hydration
- ☐ Feeding and Nutrition
- ☐ Sanitation
- ☐ Elimination
- ☐ Infectious Disease
 - ☐ Including parasites
- ☐ Socialization!!



"Shy Guy"



Essential Supplies



What you really need...



...is one of these.



Don't forget the mama

- ☐ Vaccinate with MLV
- ☐ De-worming for roundworms
 - Every two weeks
 - Arrested larvae
 - Transmammary larval migration
 - Pyrantel pamoate
- ☐ Other parasites
 - ☐ Internal
 - ☐ Coccidia?
 - ☐ Giardia (fenbendazole)
 - ☐ Tapeworm (Droncit™)
 - ☐ External (selamectin)
- ☐ Screen for ringworm



- ☐ Have a plan
 - ☐ Written treatment schedule
 - ☐ Pregnancy and lactation
 - ☐ Keep good records

See the blog post on deworming:
www.drsandranewbury.com



Prenatal

- ☐ General condition
- ☐ Nutrition
- ☐ Calcium (prenatal supplementation may cause problems unless need is identified)
- ☐ Decrease parasite load
- ☐ Prevent infectious disease



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Don't forget the mama

- ☐ Monitor mammary glands
 - ☐ Mastitis
 - ☐ Check lactation if problem signs from kittens
 - ☐ Check incision if c- section
- ☐ Monitor weight
- ☐ LOTS more food for mom



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Nesting box

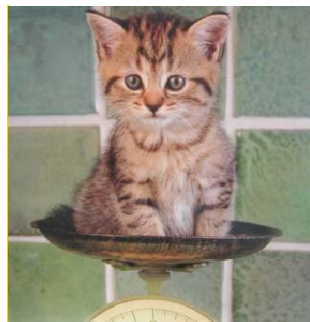
- ☐ Comfortable for mom
- ☐ Contain the pups and kittens
- ☐ Room for all
- ☐ Warm (with gradient)
- ☐ Room outside the box for mom to get away



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More Supplies

- ☐ Everything Disinfected
- ☐ Reliable / tested heating pad
- ☐ Milk Replacer
- ☐ Canned food (intermediate food)
- ☐ Cotton balls / pads
- ☐ Mineral oil / KY
- ☐ Clean towels
- ☐ Kitchen Scale
- ☐ Bottles
- ☐ Small syringes
- ☐ Eye droppers



Monitoring weight is one of the most important things you can do.

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Housing

- ☐ Warm room (avoid drafts)
- ☐ Everything disinfected
- ☐ Other pets
 - controlled interactions only
- ☐ Kids / Adults
- ☐ Protect from falls
- ☐ Linear objects
- ☐ Non-linear objects
- ☐ Electrical cords
- ☐ Small spaces
- ☐ Sofa beds
- ☐ Toxic plants and other substances



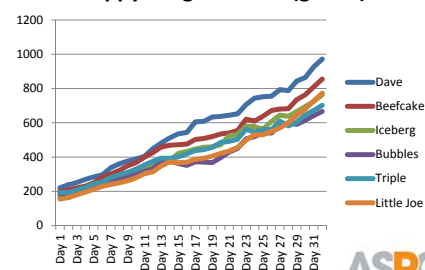
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Prevention

- ☐ **MONITORING**-Early recognition of problems
- ☐ Adequate nutrition
- ☐ **Weight checking** (every day)
- ☐ Viral Disease
 - ☐ Vaccination
 - ☐ every two weeks until 20 weeks
 - ☐ **Mechanical protection**
- ☐ Ringworm
- ☐ Parasites
 - ☐ Internal
 - ☐ every two weeks
 - ☐ External
 - ☐ every month



Puppy weight checks (grams)



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Fading

- Failure to thrive
- Syndromes cover similar undefined clinical presentations
- Many causes
 - Environmental
 - Genetic
 - Infectious
- Often cause is unknown
- Rule out or assume the worst
- Most common in the neonatal period



Failure of passive transfer (FPT)

- Sepsis
- Colostrum deprived kittens at highest risk
- Colostrum* replacement?
- Must be within 18 - 24 hours if oral



* Use of adult cat serum to correct failure of passive transfer in kittens, J Levy, C Crawford, W Collante, M Papich, JAVMA Vol 219, No. 10, November 15, 2001



Flea / parasite anemia

- Blood volume is very small
- Warm water and very mild soap under 4 weeks
- Pick the fleas
- Treat for worms



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But...

- When kittens die in a shelter or shelter related setting
- Always rule out panleukopenia



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Treatment

- Diarrhea / URI / Parasites
- Rare labeled products for age group
- Experience and trial reporting
- Balance risk vs. benefit
 - Drug safety
 - Need for treatment
- **Supportive care!**
 - Dehydration
 - Malnutrition



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Litter mate sucking

- Prevention
 - Frequency of feeding
 - Adequate feeding
- Monitor for inflammation
- Seek veterinary care
 - Topical anti-inflammatory
 - Separate relentless littermates

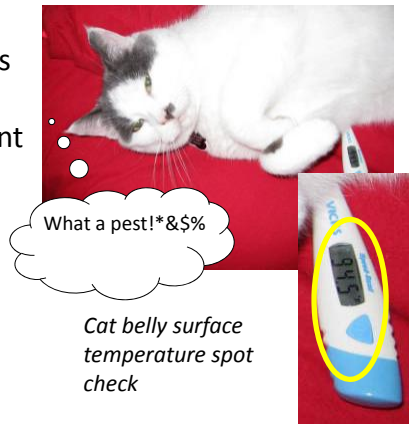


Remember nursing vigor?

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Keep them warm (but don't cook them)

- ☐ Thermoregulation
 - ☐ Not until at least 2-3 weeks of age
- ☐ Provide a temperature gradient
- ☐ Warm room (85-90F)
- ☐ Warm surfaces
- ☐ Make it snuggly
- ☐ Groups do best
- ☐ Heating pads
- ☐ Watch / pre-test for hot spots
- ☐ Make sure they can breathe!



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Assist with and monitor elimination

- Voluntary elimination about 3 weeks of age
- ☐ Frequency / Timing
 - ☐ Before meals / after meals?
- ☐ Use gentle soft materials
 - ☐ + / - Lubricant (mineral oil , KY)
- ☐ Towards the exit 😊
- ☐ Monitor for sore spots
- ☐ Monitor for loose stool or constipation
- ☐ Monitor for urination
- ☐ Keep records
- ☐ Keep the litter box and housing clean!



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Keep them clean

- ❑ Prevent skin scald
 - Don't let feces accumulate
 - Urine scald
- ❑ BATHE them!
 - Daily or more often
 - Blow dry?
 - Warm towels from the dryer



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Milking: Getting started

- | | |
|--|--|
| <ul style="list-style-type: none"> • Babies must be warm <ul style="list-style-type: none"> – Cannot digest food if they are not warm – Take the time to warm newly arrived babes before feeding • Milk replacer must be warm <ul style="list-style-type: none"> – Warmer than your body temperature – Test on your wrist skin | <ul style="list-style-type: none"> • Mix milk replacer according to directions • Store unused powder in the freezer • Mix a bit more than you expect to use and discard unused portion • Clean bottles and nipples regularly |
|--|--|

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Feed appropriate milk replacer

- Commercial products specific for kittens and puppies
 - Powdered forms
 - Liquid forms
- Many brands (*not just those shown*)
- Home made?



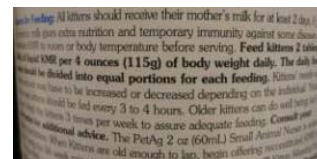
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Feed them enough

- BUT not too much
 - Most important when very young or force feeding
 - Pay attention to communication signals

- ☐ Use a scale to weigh
- ☐ Use feeding charts for particular products
- ☐ Be sure to understand the “amount”
 - ☐ Per day / or per feeding
- ☐ Dependent on mixing

| FEEDING CHART | | | |
|---------------|-----------|---------|-----------|
| AGE | WEIGHT | AMOUNT | |
| (months) | | Per day | TIMES/DAY |
| 1 | 4 ounces | 32 cc | 6 |
| 2 | 7 ounces | 56 cc | 4 |
| 3 | 10 ounces | 80 cc | 3 |
| 4 | 13 ounces | 104 cc | 3 |
| 5 | 1 pound | 128 cc | 3 |



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Feed them often enough

- Small frequent meals for neonates
- Every TWO hours is most ideal for neonates
- Extend time between feedings as they age
- Pay attention to signals

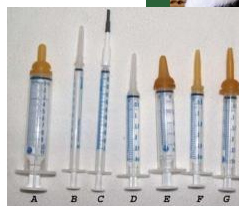


| Age | Time Table | Feedings per day |
|-----------|---|------------------|
| 0-2 weeks | Every 2-3 hours, 24 hours a day ★ | 8 to 12 |
| 2-3 weeks | Every 2-4 hours, 24 hours a day ★ | 8 to 12 |
| 3-4 weeks | Every 4-5 hours ★ | 5 to 6 |
| 4-5 weeks | Every 5-6 hours ★ | 3 to 4 |
| 5-6 weeks | Every 6 hours, from morning until 10 or 11 p.m. ★ | 3 to 4 |
| 6-8 weeks | Every 8 hours ★ | 2 to 3 |

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Milking for Neonates

- ☐ Nipple sizing and shape
 - ☐ Options
 - ☐ CATAC
 - ☐ 4 Paws
- ☐ Use syringe or eye dropper
- ☐ Go *VERY* slowly
- ☐ Small drops
- ☐ CAUTION!
 - ☐ Danger of suffocation
 - ☐ Danger of aspiration
- ☐ Tube Feeding?



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Kitten Milking: Nipple competent

- Piercing the rubber nipple
 - X
 - Testing delivery
- Air lock problems
- Holding the bottle
- Positioning the kitten
- Patience
- Latching on vs. chewing



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Milking



“Julie”



“Cynda”

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Working towards weaning

- Gradually thicken the milk replacer
- Add in small amounts of smooth kitten food
- Offer milk replacer and smooth canned food on plates



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Weaning to solid food

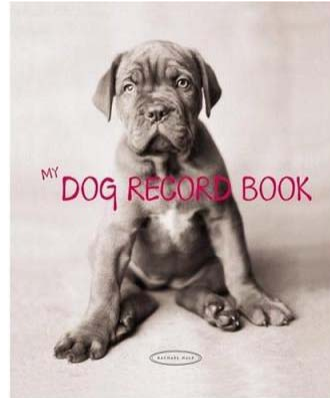
- Smooth foods
- Most common time for diarrhea
- Start solids at 3-4 weeks
- Age to wean?
- Need for love



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Keep records!

- Record weights (daily)
- Food intake and elimination
- Record all treatments given
- Record all vaccinations site, route, serial numbers



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Thanks for all you do!



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One year reunion



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A FEW COMING ATTRACTIONS FROM ASPCAPRO

www.aspcapro.org/webinars

- Ringworm 101 for Shelters (9/25)
- Does Spay/Neuter Have a “People Problem”? (9/26)
- Ringworm Outbreak Management (10/02)
- Starting a TNR Program in Your Community (10/17)
- Beating Ringworm: Yes, You Can! (10/23)

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