

## What to Do With a Shelter Puppy?

Maximizing Puppy Live Release Rate

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## What to Do With a Shelter Puppy?

### Objectives:

- Write or update a comprehensive puppy protocol for your shelter
- Maximize the puppy live release rate
- Puppies are dogs less than 18-20 weeks of age

All handouts and this PowerPoint downloadable at [www.wendyblount.com](http://www.wendyblount.com).

- Click on "Presentation Notes"
- Click on "What to Do With a Shelter Puppy?"

## Intake Planning for Puppies

### Pathway Planning

- Identify the most likely outcome for the animal
- Guide them there as soon as possible
- Identify pathway on intake
- Reassess each animal's pathway daily

**Minimize Turnover Time Especially for Puppies!**

## Foster Care

- Puppies or kittens too young or too ill for adoption are at great risk of euthanasia at shelters
- Richmond ASPCA began "**Foster to Surrender**"
  - When puppies and kittens are brought for surrender, individuals encouraged to foster until ready for adoption
  - Puppies and Kittens were owned by the shelter
  - Shelter provides vaccines and dewormers and training for orphan care
  - Inexpensive to implement
  - Tremendous public appeal

## Foster Care

- "Foster to Surrender" Intake Procedure
  - puppies/kittens surrendered
  - Vet exam
    - Fecal
    - FeLV/FIV tests
    - Vaccination, deworming, prescribed meds
  - Supplies provided if needed
    - Food, formula
    - Litter boxes and litter
    - Crates and beds
  - Care giver signs contract with return date

## Foster Care

- Ideal return date is 10-12 weeks of age
- Spayed and Neutered
- Put on the adoption floor
- Healthy puppies and kittens do not last long
- During kitten/puppy season, they might need to be on a short waiting list for cage space
- Provide a date at which they can surrender no matter the cage space (12-14 weeks)
- Eliminate the worry of "getting stuck" with the puppies or kittens

## Foster Care

### Staff Required

- One person tracks the fosters in the program
  - Schedule & monitor puppy visits
  - Follows up on return date
- Vet must provide intake exam and follow-up visits
- Shelter staff dispenses supplies
- Less than that to care for animals in house

## Foster Care

### Benefits of the Program

- Infectious disease minimized
- Improved weight and body condition
  - Less disease exposure
  - Less stress
- Lower puppy euthanasia and death rates
  - Improved immunity when they enter the shelter
- Higher puppy and kitten adoption rates
  - Caregivers help find homes
  - Caregiver sometimes adopt

## Foster Care

### Benefits of the Program

- Improves staff relations with the public
  - Staff sees public is "foster home" rather than "puppy dumper"
  - Public sees shelter staff is "puppy saver" rather than "puppy killer"
  - Animal welfare becomes a community concern rather than a shelter concern
- Raise public awareness of pet surplus
  - Donation fund to support the program
  - Sammy and Rex Fund

## Foster Care

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  - [Rex and Sammy Fund](#)

## Foster Care

### Obstacles to the Program

#### Overcoming the Fear

- Staff learns to trust the public
- Public learns to trust staff
- "Feel the Fear and Do it Anyway" (Susan Jeffries)

#### Dealing with the rejections

- Some say, "No"
- Many more say, "Yes"

#### Dealing with occasional failure (Richmond ASPCA 1.7%)

- Some lost to follow-up
- Some die in foster care

## Foster Care

### In the Contract

- Animal owned by the shelter
- Appointment info for puppy visits
- Where to get supplies
- Who to call with questions or emergencies
- Which veterinarians to use for services
  - Those with MOU
- Caretaker financially responsible for any veterinary care not pre-approved by shelter staff

## Foster Care

### Puppies born in the shelter

- Foster Mom and pups out ASAP
- Intake Mom when pups are 6 week old
- Pups into foster homes until 10 weeks of age

**Goal is to have all pups <10 weeks in foster care  
Never keep pups <6 weeks in the shelter if you can help it**

**There will still be young pups in the shelter that have nowhere else to go**

**Call in foster puppies 6-10 weeks old if not enough pups in the shelter**

## Microchips

### Even puppies should be scanned for microchip

- AKC puppies are chipped
- Breeders often chip unregistered puppies
- 20-25% of dogs in shelters are purebred dogs

**Microchip doubles the likelihood of dog reclaim and increases cat reclaims by nearly 20x  
Scanning more than once (2-3x) will increase likelihood of finding a microchip by 13%**

Lord LK, Ingwerson W, Gray JL, et al. Characterization of animals with microchips entering animal shelters. *JAV/MA* 235(2), 2009.

## Microchips

### Universal scanners



Brian DiGangi, 2011

## Microchips

- 125 kHz** – 24PetWatch, AVID FriendChip, AVID Euro, HomeAgain 125, Banfield
- 128 kHz** – AKC CAR
- 134.2 kHz** – Bayer ResQ (ISO), HomeAgain 134.2 (ISO), FoundAnimal, Banfield (ISO)

**If you use and AKC CAR scanner, you should get another Scanner to detect 125 kHz chips**

**AVID MiniTracker I Universal MultiScan 125 is NOT a universal scanner – scans 125 kHz only (blue, red, black)**

## Microchips

### Proper Chipping Technique

- Scan the pet to make sure not already chipped
- Scan the chip to make sure it is not faulty
- Check the number on the scanner against the label
- Place the chip
- Scan the pet to make sure the chip is in the animal
- 7 of 11 chips that could not be found on scanning also could not be found with radiographs
- 2 chips found in the cage after chipping
- if not chipped on intake, chip when they leave the shelter (foster care included)

## Microchips

### Proper Scanning Technique – S.C.A.N.

- Slow** - Speed – 6 inches per second
- Close** – really close to the animal – touching them is OK
- Area** – Cover the entire dog, including head, legs and tail
  - chips migrate
  - Serpentine pattern on top, and on each side
- Next Steps** in the intake protocol
  - Record the chip number
  - Search the chip at <http://petmicrochiplookup.org>
  - If not registered, determine who made the chip and call the manufacturer
  - They can tell you who bought the chip

### Microchips

#### Tips for Scanning

- Watch for low battery warnings
  - Less sensitive when batteries are low
- If first scan on intake reveals no chip, scan again
- Complete the entire scan even after a chip is found
  - animals can have more than one chip
- If you use PetPoint Software, also search that database for the chip
- Register with
  - <http://microchipregistry.foundanimals.org>

### Animal Identification


#### Challenges to uniquely identifying puppies

- photos for identification
  - entire pet in photo
  - Don't rely on photos alone
  - Yellow lab puppies all look alike
  - Post pictures of strays online
    - if it were your animal, would recognize it from the photo?
- Note in the record distinguishing marks not seen in the photo
  - **Repeat photo once monthly until 6-8 months of age**

### Animal Identification

#### Challenges to uniquely identifying puppies

- 52 pound male pit bull, white and brindle bicolor



### Animal Identification

#### Challenges to uniquely identifying puppies

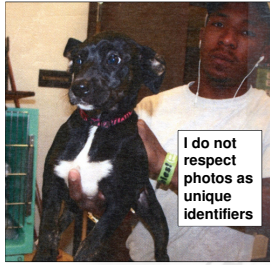
- 20 lb 4 month old female GSD x pug, solid black



### Animal Identification

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### Intake Housing

- Puppies should be housed separately from adult dogs, regardless of vaccination status
- Ideally there should be four puppy areas
  - **Quarantine** – watching for signs of disease
  - **Isolation** – actively infected, to protect general population
  - **Healthy hold** - came with medical records, unlikely to have infectious disease, available for immediate adoption until introduced to adoption floor
  - **Puppy adoption floor**

## Intake Housing

- Appropriate foster homes can be designated for **isolation**
  - Ringworm should not go to foster
  - Long term contamination with parvovirus
    - Designated parvo convalescent foster homes
- **Stray hold** period and **quarantine** can also take place in approved foster homes
- **Healthy Hold** and **Adoption** are best in the shelter, where foot traffic will maximize adoptions

## Intake Housing

- Littermates housed together in larger housing
- Some prefer to separate the puppies into smaller cages during adoption hours
  - they stay cleaner and show better
  - A pair of puppies per cage is ideal (M & F)
  - Observation of puppies at play
  - More likely to adopt two
- Consider traffic flow when choosing puppy locations
  - traffic must flow from most susceptible to least
  - Puppies and kittens first
  - Then the rest of the shelter

## Intake Exam

### Tips for Estimating Age

- Eyes open at 2 weeks

Eruption of Teeth in Dogs		
	Deciduous Teeth	Permanent Teeth
Incisors	3-6 weeks	12-16 weeks
Canine	3-5 weeks	5-6 months
Premolars	4-12 weeks	5-6 months
Molars (2/3)	n/a	5-7 months

- If permanent incisors in, they are old enough for rabies vaccine
- If permanent canines in, they are old enough for HW test

## Intake Exam

### Infectious Disease that needs to go to Isolation rather than Quarantine or Healthy Hold

- Ringworm – use the woods lamp
  - Any round lesions – isolation while culturing
  - Patchy hair loss on feet and tail of puppies
- Nasal discharge
- Ocular discharge
- Fever
- Diarrhea, Vomiting

## Puppy Intake Treatments

1. Vaccination
2. Deworming
3. External Parasite Removal
4. Treatment of Medical Problems

## Vaccination

Lechner ES, Crawford PC, Levy JK et al. Prevalence of protective antibody titers for canine distemper virus and canine parvovirus in dogs entering a Florida animal shelter. *JAVMA* 236(12):1317-21, 2010.

- Titers for these diseases have been validated as evidence of protection from infection
- More than 50% of dogs were not protected from CDV
- About 1/3 of dogs were not protected from CPV
- Stray dogs were not more likely to be susceptible than owner surrenders
- Those with illness were not more likely to be susceptible

**No way to identify those animals coming in with greatest need for vaccination other than doing titers**

## Vaccination

### Can vaccine on intake work fast enough to protect shelter animals?

- Adults respond maximally to first does of MLV vaccine within 5-7 days
- If adult has had any vaccine previously, maximal response to MLV occurs within 1-3 days
  - Antibody levels limb faster and higher
- Intranasal vaccines protect within 2 days
- Maternal immunity is gone between 10 and 18 weeks
- Vaccination at intake is the best you can do in most cases
- Vaccines will take effect before intake quarantine is over
- Shelters that take surrender appointments may have the opportunity to vaccinate prior to intake

## Vaccination

Reference	Disease	Time to Protection	Protection Test	Vaccine Type
Brun, 1979	FPV	3 days	Challenge	MLV
Carmichael, 1983	CPV	5 days	Titers	MLV
Larson, 2006	CDV	4 hours	Challenge	Recombinant
Cocker, 1986	FHV-1	2 days**	Challenge	MLV-IN
Larson, 2009	FCV	7 days**		MLV
Gore, 2005	Bordetella	2 days**	Challenge	AL-IN

\*\*these vaccines are intended to lessen severity of disease rather than prevent infection

## Vaccination

### Intranasal vaccines

- Response within 48 hours
- Mitigate symptoms of upper respiratory infection
- Bypass maternal antibody interference
- The only vaccination route by which canine parainfluenza immunity develops
- Stronger protection against respiratory pathogens via local immunity

## Vaccination

### AAHA Vaccine Guidelines for Shelters (2011)

#### DHPP

- MLV on or before intake, or according to provided vet records
- Begin at 4 weeks of age
- every two weeks until 18-20 weeks of age
- Booster in one year
- Every three years thereafter
- rCDV (Recombitek – Merial) and measles/CDV vaccine break through maternal immunity 2 weeks earlier than MLV
- rCDV and MLV equally effective for puppies >20 weeks

## Vaccination

### AAHA Vaccine Guidelines for Shelters (2011)

#### Bordetella + CPi ± CAV2 IN or PO on intake

- Begin at 3 weeks of age or on intake
- Repeat in 2 weeks or at 6 weeks of age, whichever is later, if 1<sup>st</sup> dose less than 6 weeks of age
- SC not recommended for pups, as most puppies can be given IN vaccine safely
- A single IN dose is protective after 6 weeks
- 2 doses of SC are required for immunity, no matter age
- Repeat once yearly

\*\*Parenteral administration of CPi vaccine is not effective

## Vaccination

### AAHA Vaccine Guidelines for Shelters (2011)

#### Rabies

- Not indicated for pups <12 weeks
- Not necessary for pups 12-16 weeks, as risk exposure while at the shelter is minimal
- AAHA recommends vaccination on release from shelter
- AAHA recommends vaccination on intake if long shelter stay is anticipated
- State law requires vaccination by 16 weeks (no exceptions for shelters)
- Booster 1 year later
- Then every 3 years

## Vaccination

### AAHA Vaccine Guidelines for Shelters (2011)

#### Canine Influenza

- 1 dose has little benefit, so do not vaccinate if turnover time is known to be less than 2 weeks
- Consider vaccination if shelter is in endemic area or if animals transported to or from shelter to endemic area
- As young as 6 weeks of age
- First dose at or before intake
- Two doses two weeks apart are required for immunity

## Vaccination

### Vaccine Tips

- Use MLV vaccines rather than killed for fastest immunity
- Vaccinate all animals regardless of health status
- Lack of ideal response is a legitimate concern in practice when the vaccine can be given later with no harm to the animal, but not at the shelter
- Once mixed and stored at room temperature, give MLV vaccines within 1 hour
- Single dose vials are preferred
  - Reduced contamination
  - Ensures proper mixing and dosage of antigen and adjuvant
  - Bordetella ADT (Nobivac, Intervet) prevents inadvertent SC injection of IN

## Vaccination

### ASV Guidelines, 2010

- Vaccination protocols used for individual pets in homes are not adequate in most shelter settings
- Pregnancy and mild illnesses are not contraindications to vaccination with MLV vaccine in shelters
- Shelters that do not vaccinate all animals immediately on intake are more likely to experience deadly outbreaks
- [Protocols](#) for managing adverse reaction **must** be provided by a veterinarian and be readily accessible

Because risk of disease exposure is often high in shelters, animals **must** be vaccinated at or prior to intake

## Deworming

### CAPC Guidelines

- Broad spectrum dewormer at intake - Fenbendazole
- Puppies and kittens every 2 weeks until 16 weeks of age
- Then monthly

**ASV** – deworming on intake and regularly to prevent environmental contamination and zoonosis

**Dogs and cats should not be allowed on the grass or dirt until dewormed twice**

**Puppies should be exercise on grassy areas separate from other dogs**

- Quarantine and isolation not on grass
- Separate areas for healthy hold and adoption

## External Parasites

### No Specific Guidelines

- Fleas can be deadly to puppies and kittens in Texas
- Ticks carry life threatening diseases for animals and people
- Capstar on intake is a favorite for fleas
- Ticks and fleas can infest the shelter, and one of the **Five Freedoms** of the [ASV Shelter Standards \(2010\)](#) is
  1. Freedom from Pain, injury or Disease
  2. Freedom from Hunger and Thirst
  3. Freedom from Discomfort
  4. Freedom to Express Normal Behavior
  5. Freedom from Fear and Distress

## External Parasites

### No Specific Guidelines

- Some split up tubes of Extra Large Dog Advantage or Frontline to use on smaller dogs and cats
  - All evidence shows this is safe and effective
  - Keep in mind this is illegal**
- Frontline spray or a dip is often used for ticks

## Diagnostic Testing

### Fecal Exam for Parasites

- If routinely dewormed, most shelters do this only if problems with abnormal stool
- Studies show low sensitivity of fecal flotation
- If problems with infectious diarrhea, fecal tests on intake might become routine for awhile
  - *Giardia spp* (SNAP tests also available)
  - *Coccidia spp*
- If problems with Coccidia, some use one dose of ponazuril (Marquis paste) on intake (50 mg/kg)
  - Lower doses don't work as well
  - Using 2-3 days in a row does not increase effectiveness and causes diarrhea
  - Don't forget to bathe the animals & pay careful attention to sanitation
  - Cysts on the fur re-infect

## Minimum Age of Administration

<b>Pyrantel</b> – 2 weeks	<b>Vectra 3D</b> – 7 weeks, 2.5 lbs
<b>Interceptor</b> – 2 weeks	<b>Advantage II</b> – 8 weeks
<b>Drontal Plus</b> - 3 weeks, 2 lbs	<b>Advantix</b> – 8 weeks
<b>Capstar</b> – 4 weeks, 2.2 lbs	<b>Certifect</b> – 8 weeks
<b>Program</b> – 4 weeks	<b>Frontline</b> – 8 weeks
<b>Sentinel</b> – 4 weeks	<b>Iverhart Max</b> – 8 weeks, 6 lbs
<b>Fenbendazole</b> – 6 weeks	<b>Trifexis</b> – 14 weeks, 5 lbs
<b>Heartgard</b> – 6 weeks	<b>Comfortis</b> – 14 weeks, 5 lbs
<b>Heartgard Plus</b> – 6 weeks	<b>Albon</b> – no age minimum
<b>Revolution</b> – 6 weeks	<b>Azithromycin</b> – no age minimum
<b>Metronidazole</b> – weaned	<b>Ponazuril</b> – no age minimum
<b>Advantage Multi</b> – 7 weeks	<b>Doxycycline</b> – enamel stains

## Enrichment for Puppies

- Foster homes until 10 weeks of age maximizes positive socialization
- Housing litters together (if only at night) provides self enrichment
- Use volunteers to play with puppies and begin training

**ASV Guidelines** - Enrichment should be given the same significance of other components of animal care and should not be considered optional

## Web Resources

- [HSUS aging dogs chart](#)
- DiGangi [aging kittens chart](#)
- Griffin [Microchip scanning technique](#)
- [Microchip Codes](#)
- HSUS – “[Enriching a Shelter Dog's Experience](#)”
- Richmond SPCA “[Foster to Surrender](#)”
- UC Davis Koret Shelter Medicine – [Vaccine Reactions](#)
- Blount – TVMA Proceedings Paper “[What to Do with a Pound Puppy](#)”
- Blount – PowerPoint - .pptx and [.pdf](#)

## Web Resources

- [ASV Shelter Standards 2010](#)
- Scanner Paper – [Lord et al, JAVMA 2009](#)
- Microchips and Reclaims Paper – [Lord et al, JAVMA 2009](#)
- Shelter Admission Titer Study – [Lechner et al, JAVMA 2010](#)
- Links:
  - Rex and Sammy Fund
  - Pet Microchip Lookup
  - Found Animals Registry