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KEY POINTS

- ▶ Lack of appropriate socialization during key developmental stages increases the possibility of future fear, anxiety, and stress in patients, which is a serious emotional welfare concern.
- ▶ Concerns from practitioners regarding socialization prior to 14 weeks of age mostly focus on risks for disease transmission, including highly communicable diseases such as parvovirus and infectious tracheobronchitis, as well as parasitic infestations.
- ▶ To minimize risk during the socialization window, reliance on maternal and vaccinal immunity, appropriate monitoring for disease transmission, and parasite prevention are key.
- ▶ BRAVECTO® 1-MONTH (fluralaner) Chews protects against fleas and ticks, and SENTINEL® SPECTRUM® Chews (milbemycin oxime, lufenuron, praziquantel) protects against 4 types of intestinal parasites, heartworms, and immature fleas.

Socialization & Reducing Disease Risk in Puppies

Veterinary professionals see the results of inadequate socialization on a daily basis—fearful and aggressive patients that lacked appropriate positive exposure during this formative period.¹

What Is Socialization?

In the field of veterinary behavior, the term socialization is used to describe a window of opportunity in which an animal is most receptive to positive exposure to novel stimuli and for which lack of exposure has been shown to have serious detrimental effects. For dogs, this critical period is from about 3 to 14 weeks of age and ends around the time the puppy would typically be fully vaccinated.^{2,3}

Appropriate socialization is a vital part of developing a strong lifelong bond between owner and puppy. The implications of missing socialization during this period include an inability to form relationships with humans,² lack of sociability with other dogs,⁴ increased possibility of relinquishment,⁵ fear, avoidance of unfamiliar humans, and even aggression.⁶ Lack of appropriate socialization during this key developmental stage increases the possibility of future fear, anxiety, and stress in patients, which is a serious emotional welfare concern.

Preventive care for puppies should not just include physical examinations, vaccinations, and parasiticides; clinicians should be recommending socialization as standard of care and part of a comprehensive prevention program, as socialization is considered to be similar to vaccinating for future behavior problems.

The Risks of Socialization

Unfortunately, it can be difficult to convey how to achieve adequate socialization while balancing the need for disease prevention in these higher-risk young puppies. Concerns from practitioners regarding socialization prior to 14 weeks of age mostly focus on risks for disease transmission, including highly communicable diseases such as parvovirus and infectious tracheobronchitis, as well as parasitic infestations. These concerns have led some clinicians to recommend owners not take their pets anywhere before the vaccination series has been completed. Although well-intended, this stance could hinder or negatively impact the human–animal bond and increase the risk for future relinquishment.

Thankfully, the actual risk for diseases acquired through socialization classes has been shown to be low,⁷ and the benefits of a well-run class in an appropriately cleaned environment, with other dogs receiving preventive care and being

monitored for disease transmission risk, will generally far outweigh the risk for future behavior problems from missing this critical socialization period.

Minimizing the Risks

To minimize risk during the socialization window, reliance on maternal and vaccinal immunity, appropriate monitoring for disease transmission, and parasite prevention are key.

Vaccination

All puppies should have ≥ 1 distemper/parvovirus combination vaccine administered at or older than the labeled age by a veterinarian ≥ 7 days prior to starting class.⁸ In addition, the puppy should have been prophylactically dewormed and have a negative fecal sample by centrifugation verified prior to the beginning of class. Owners are advised to not bring their puppy to the class if it is showing any signs of diseases, including coughing, sneezing, vomiting, and diarrhea, until cleared by a veterinarian and deemed healthy and noncontagious.

Cleaning of the facility and any eliminations should be done using veterinary healthcare-grade parvocidal cleaning solutions for the correct contact time. If a puppy eliminates during class, owners should be instructed to immediately

secure their puppies until the accident can be appropriately contained and the area decontaminated. The ability to clean a facility is an important reason to hold socialization classes indoors, as it is nearly impossible to apply infectious disease control to an outdoor or grassy surface. Exposure to the outdoors may be unavoidable, though, so it is critical that measures be taken to prevent both internal and external parasites during this period.

Parasite Protection

The Companion Animal Parasite Council (CAPC) recommends, in addition to regular fecal centrifugation testing, administration of anthelmintic treatment starting at 2 weeks of age and repeating every 2 weeks until regular broad-spectrum antiparasitic medication is started.⁹ Exposure to ectoparasites, including fleas and ticks, should also be expected, and CAPC recommendations include year-round flea and tick prevention.^{10,11}

Puppy owners can purchase BRAVECTO® 1-MONTH (fluralaner) Chews to protect against fleas and ticks, and SENTINEL® SPECTRUM® Chews (milbemycin oxime, lufenuron, praziquantel) can be purchased to protect against 4 types of intestinal parasites, heartworms, and immature fleas. When puppies reach 6

months of age, their growth rate slows, and they are generally no longer coming in for monthly veterinary visits; at this time, for owner convenience, they can switch to extended duration BRAVECTO® (fluralaner) Chews.

Client Education

Owner education is paramount to not only successful socialization but also prevention of disease transmission. To do our due diligence, the veterinary team must clarify that pets should not be taken to highly trafficked areas (eg, pet stores, dog parks) with animals of unknown vaccinal and health status. Owners rely on veterinarians for sound medical and behavioral advice throughout their pet's lifetime, which should include how to appropriately socialize their pet with disease risk mitigation.

If a veterinarian refers to a trainer for socialization classes or training, it is important to ensure that the trainer is giving sound advice regarding how to minimize disease risks. If the trainer reiterates what their veterinarian says with regard to monitoring and prevention, compliance is likely to increase and thus even further reduce the risk for disease transmission while preventing future behavior issues. Alternatively to referring to a training facility, hiring a qualified positive reinforcement-based trainer to teach socialization classes in the clinic can help ensure appropriate screening and vaccination of participants and cleaning of the facility.

Conclusion

As veterinary professionals, we have a responsibility to help clients see the importance of following our medical recommendations for their puppy's care. This includes appropriate socialization and training to lead to a healthy and happy lifelong relationship with their dog. ■

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IMPORTANT SAFETY INFORMATION

BRAVECTO 1-MONTH Chews are for dogs 8 weeks of age and older. Side effects may include itching, diarrhea, vomiting, decreased appetite, elevated ALT, lethargy, and weight loss. Fluralaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving isoxazoline class drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders. **BRAVECTO 1-MONTH** Chews are not effective against *A. americanum* in puppies less than 6 months of age. Please see full prescribing information at us.bravecto.com.

SENTINEL® SPECTRUM® Chews (milbemycin oxime/lufenuron/praziquantel). Dogs should be tested for heartworm prior to use. Mild hypersensitivity reactions have been noted in some dogs carrying a high number of circulating microfilariae. Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. For complete product information refer to [product insert](#).

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