



PREVENTION OF DOG BITES IN YOUNG CHILDREN

Description

Dog bites are serious and largely preventable injuries that disproportionately affect young children. The vast majority of dog bites to children are inflicted by a family pet or familiar dog and these injuries most often occur at home (Arhant, Landenberger, Beetz, & Troxler, 2016; Garvey, Twitchell, Ragar, Egan, & Jamshidi, 2015; Reisner & Shofer, 2008). The absence of appropriate adult supervision is a significant, but modifiable risk factor for dog bite injuries to young children. Despite the magnitude of this problem and research defining the dangers, successful programs targeting the reduction of dog bite injuries to infants and small children have not been developed (Warner & Schilling, 2017).

APSNA Position

It is the position of APSNA that:

1. Childhood dog bite injuries can be prevented when parents and dog owners understand safe child-dog interactions and parents consistently provide appropriate supervision of these interactions.
2. Pediatric providers should include anticipatory guidance at well child visits to raise awareness about the risk of injury and educate parents about appropriate supervision of child-dog interactions (Warner & Schilling, 2017).
3. Anticipatory guidance to parents should include ways to improve the safety of the child's environment such as the use of baby gates to ensure separation of the child and dog (Warner & Schilling, 2017).
4. Parents should be taught that a sleeping infant or child should never be left unsupervised in a room with a dog and children should not be allowed to put their faces in close proximity to a dog's face (Arhant et al., 2016; Iazzetti, 1998; Rezac, Rezac, & Slama, 2015).
5. An adult caretaker should supervise all toddler-dog interactions and the child should not be allowed to approach a dog while it is eating or sleeping (Patronek, Sacks, Delise, Cleary, & Marder, 2013; Reisner & Schofer, 2008).
6. Collaboration between medical and veterinary professionals in a variety of settings will be necessary for the development of successful dog bite prevention programs.
7. The development of state based, centralized reporting systems for dog bites would aid in determining the true incidence of these injuries and help identify areas for further research and prevention.
8. Future research should examine the impact of educational programs on the rate of pediatric dog bite injuries.

Background

According to the Centers for Disease Control and Prevention (CDC), there were more than 87,000 nonfatal dog bites to children ten years of age and younger in 2014. This is a rate of 86 dog bite injuries per 100,000 children (CDC, 2003). Children under the age of five years old are at highest

risk for severe and fatal injuries resulting from dog bites (Daniels, Ritzi, & O’Neil, 2009; Patronek et al., 2013) and are two to three times more likely than an adult to suffer a dog bite injury. A review of 256 dog bite fatalities in the US between 2000 and 2009 identified the most preventable incidents occurred when a young children was left alone with a dog or came into contact with a dog while unsupervised (Patronek et al., 2013). Infants and toddlers suffer the highest proportion of dog bites to the face and neck which can result in severe, disfiguring injuries requiring multiple surgical procedures and long hospital stays (Rezac, Rezac, & Slama, 2015). The physical and emotional impacts of dog bite injuries can be long-term. Child victims may develop symptoms including intense fear of dogs, reluctance to leave home, and lack of interest in routine play activities (Peters, Sottiauk, Appleboom, & Kahn, 2004). Parents and dog owners are often unaware or underestimate the risks inherent to toddler-dog interactions (Arhant et al., 2016).

Pit bulls are the breed most often responsible for life-threatening dog bite injuries to children^{2,6,7} including ocular injuries (Prendes, Jian-Amandi, Chang, & Shaftel, 2016), and severe injuries to the head and neck (O’Brien, Andre, Robinson, Squires & Tollefson, 2015). Most states lack a centralized reporting system for dog bite injuries (Rhea et al., 2014) and dog bite laws are the purview of individual state and local authorities.

This position statement was developed to educate health care providers about age-specific risk factors and prevention strategies for dog bite injuries in children. APSNA strongly encourages all health care providers, teachers, legislators, public safety advocates, and government officials to protect our children from dog bite injuries with the overall goal to reduce the frequency of dog bites as well as to protect our greatest resource, our children.

References

- Arhant, C., Landenberger, R., Beetz, A., & Troxler, J. (2016). Attitudes of caregivers to supervision of child–family dog interactions in children up to 6 years—an exploratory study. *Journal of Veterinary Behavior: Clinical Applications and Research*, 14, 10-16.
- Bini, J., Cohn, S., Acosta, S., McFarland, M., Muir, M., Michalek, J., & TRISAT Clinical Trials Group (2011). Mortality, mauling, and maiming by vicious dogs. *Annals of Surgery*, 253(4), 791–797.
- Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS). [Online]. (2003). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). Available from: URL: <https://www.cdc.gov/injury/wisqars/index.html>. [2017, Nov, 15].
- Daniels, D. M., Ritzi, R. B., & O’Neil, J. (2009). Analysis of nonfatal dog bites in children. *Journal of Trauma and Acute Care Surgery*, 66(3), S17-S22.
- Dixon, C. A., Pomerantz, W. J., Hart, K. W., Lindsell, C. J., & Mahabee-Gittens, E. M. (2013). An evaluation of a dog bite prevention intervention in the pediatric emergency department. *The Journal of Trauma and Acute Care Surgery*, 75(4), S308-S312.
- Garvey, E. M., Twitchell, D. K., Ragar, R., Egan, J. C., & Jamshidi, R. (2015). Morbidity of pediatric dog bites: A case series at a level one pediatric trauma center. *Journal of Pediatric Surgery*, 50(2), 343-346.
- Golinko, M. S., Arslanian, B., & Williams, J. K. (2016). Characteristics of 1616 consecutive dog bite injuries at a single institution. *Clinical Pediatrics*, 56(4), 316-325. <http://doi:10.1177/0009922816657153>.
- Iazzetti, L. (1998). Anticipatory guidance: having a dog in the family. *Journal of Pediatric Health Care*, 12(2),

73-79.

- O'Brien, D. C., Andre, T. B., Robinson, A. D., Squires, L. D., & Tollefson, T. T. (2015). Dog bites of the head and neck: An evaluation of a common pediatric trauma and associated treatment. *American Journal of Otolaryngology*, *36*(1), 32-38.
- Patronek, G. J., Sacks, J. J., Delise, K. M., Cleary, D. V., & Marder, A. R. (2013). Co-occurrence of potentially preventable factors in 256 dog bite-related fatalities in the United States (2000–2009). *Journal of the American Veterinary Medical Association*, *243*(12), 1726-1736.
- Peters, V., Sottiauk, M., Appleboom, J., & Kahn, A. (2004). Posttraumatic stress disorder after dog bites in children. *The Journal of Pediatrics*, *144*(1), 121-122.
- Prendes, M. A., Jian-Amadi, A., Chang, S. H., & Shaftel, S. S. (2016). Ocular trauma from dog bites: Characterization, associations, and treatment patterns at a regional level I trauma center over 11 years. *Ophthalmic Plastic & Reconstructive Surgery*, *32*(4), 279-283.
- Rhea SK, Weber DJ, Poole C, Waller AE, Ising AI, & Williams C. (2014). Use of statewide emergency department surveillance data to assess incidence of animal bite injuries among humans in North Carolina. *Journal of the American Veterinary Medical Association*, *244*(5), 597–603.
- Reisner, I. R., & Shofer, F. S. (2008). Effects of gender and parental status on knowledge and attitudes of dog owners regarding dog aggression toward children. *Journal of the American Veterinary Medical Association*, *233*(9), 1412-1419.
- Rezac, P., Rezac, K., & Slama, P. (2015). Human behavior preceding dog bites to the face. *The Veterinary Journal*, *206*(3), 284-288.
- Warner, H. & Schilling, S. (2017). When interactions between young children and dogs become dangerous: A case review, *Journal of Pediatric Surgical Nursing*, *5*(4), 15-21

Resources

Dog Bite Prevention Tips

American Academy of Pediatrics

<https://www.aap.org/en-us/about...aap/aap.../Dog-Bite-Prevention-Tips-2016.aspx>.

Dog Bite Prevention

American Veterinary Medical Association

<https://www.avma.org/public/Pages/Dog-Bite-Prevention.aspx>

Family Paws Parent Education

www.familypaws.com

The Safe Kids/Safe Dogs Project

<https://www.safekidssafedogs.com>

Doggone Safe

<http://www.doggonessafe.com/>

Holly Warner, and Lynne Farber, Trauma SIG
February, 2018