

Veterinary Connections



*News about Animal Health, Food Safety, and One Health
Army Public Health Center*

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Flea Free Living

> Content contributed by CPT Hailey Harroun-White, DVM, Section OIC, Joint Base San Antonio

The mere mention of a flea can induce panicked itching for dog and cat owners. The dog and cat flea cause pets a lot of discomfort and can also transmit diseases such as Bartonella and Rickettsia, or potentially fatal diseases such as plague and tularemia in some areas of the United States. This places your pet and your family's health at risk. Prevention is the name of the game to avoid flea infestations on pets and in your house.

The Life of a Flea

Understanding the lifecycle of a flea is crucial to prevent infestations. First, a female flea eats a tasty meal of your pet's blood before laying up to 50 eggs per day in your pet's fur. The ideal conditions for those eggs to hatch are 70-85 °F and 70% humidity; the condition of most households year-round! Once the eggs hatch, an immature larva emerges and spins a cocoon for itself. The cocoon stage is the most difficult to exterminate because the cocoons hide deep in carpets. The cocoon also protects the growing flea, allowing it to lay dormant in the environment for months to years. The flea is triggered to emerge from the cocoon by signs that a potential host is near.

Prevention

So, how do you prevent these creepy crawlies from hitching a ride on your pets? The options for flea control seem endless! Flea preventatives contain substances that either kill the flea after it bites your pet or prevent the flea from reproducing. So which preventative to choose? Purchase a flea preventative from your veterinarian or from a licensed, reputable pharmacy using a veterinary prescription. This ensures you avoid counterfeit or substandard products that may contain toxic or ineffective substances. Flea preventatives come in several forms, including topical liquid that is applied to the skin between the shoulder blades, flavored chewable "treats," a traditional pill, or a treated collar. Certain products may be less effective in certain parts of the country on their own, so talk with your veterinarian about any special geographical considerations. Some topical liquids that are safe to use on dogs, such as pyrethrins and pyrethroids, can be toxic to cats. Read the label to check for permethrin in the ingredient list and double check that the product is labeled safe for cats. Do not use products containing permethrin on cats, or in a household where the cat may groom or cuddle with the dog.

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Flea Free Living

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Get Out of My House!

Eliminating fleas is a multi-step process. First, vacuum regularly, ensuring that you thoroughly empty the vacuum bags after each cleaning session. Vacuuming can remove up to 50% of flea eggs but they can linger inside bags or central vacuum systems if not completely cleaned afterward. Pay special attention to pet bedding or cloth toys, washing them regularly with hot water and detergent. Encourage fleas to emerge by increasing the temperature and humidity in your home, then treat the home with an insecticide approved to kill fleas. These insecticides come in various forms, including powders, sprays and foggers, and are designed to kill adult fleas and stop the growth of eggs and larvae. Consider calling a pest management professional to apply these chemicals, and be sure to heed safety warnings on the application

instructions. Also, don't overlook the importance of potentially treating areas outside and around your house where fleas can survive and hitch a ride on your pet back into your home.

Your military veterinarian can assist you in choosing a flea preventative that works best for you and your pet, so you never have to worry about a flea infestation. If the worst case scenario happens and you find fleas in your home your veterinarian can help you come up with a plan. To find a Veterinary Treatment Facility near you, visit: https://usaphcapps.amedd.army.mil/milPetED/index2.html?fbclid=IwAR38Hmt8LOKh_YMnjp6XrTcnsFx6rr25Y7bEG68BsVDTDYPPfRyYDcnlzx8#project/5e7f3141-a05d-44c3-9f47-948a6b45edc8/view/milpetedtopics/article/veterinarytreatmentfacility



Separation Anxiety

> Content contributed by MAJ Desiree R. Broach, MS, DVM, DACVB, Veterinary Medical Center, Europe

What is separation anxiety in pets?

Separation Anxiety is a behavioral disorder that results from anxiety and distress when separated from an attachment figure. Most commonly, the attachment figure is a pet owner; however, it is possible that the attachment figure is an animal, such as another pet in the household. Separation Anxiety can occur in many different types of pets, but this article will only address dogs and cats.

Pet owners sometimes ask if they caused their pet to have Separation Anxiety, because they "spoil" them or treat them like family. The truth is sometimes it just happens. Pets may have a fearful or dependent personality, they may have had little or no independent experience as a puppy or kitten, there may have been a traumatic event or illness that changed their behavior, or they simply may not be coping well with a change in their environment or schedule.

What Are the Signs of Separation Anxiety?

The most common signs seen with Separation Anxiety include: hyper-attachment to the owner (meaning that they follow you around a lot), signs of anxiety during departures, and exuberant greeting behavior on returns. However, these signs are just the tip of the iceberg, there can be a spectrum of additional mild to severe (and even emergent) signs, which will depend on the individual pet. For dogs, signs typically range from pacing and vocalizing, to urination, destruction, self-injury, and even panic with extreme escape attempts. Signs in cats may also include pacing, vocalization, and destruction, but more typically include urination, defecation, and abnormal grooming behavior.

Medical conditions, such as urinary tract infections, gastrointestinal upset, and pain, can also cause many of these signs, so it is very important to have your pet evaluated by a veterinarian to ensure that their physical health is assessed before solely treating a behavioral problem. Making a video recording of the pet when left alone can also be helpful when trying to distinguish between medical or behavioral causes.

How is Separation Anxiety Treated?

- **Environmental Management:** A veterinarian will identify stressors in your pet's environment and make suggestions for mitigating that stress. Limiting the amount of time that a pet is left alone is important, but also very important is addressing appropriate exercise and enriching stimulation for your individual pet. Enriching stimulation includes games and toys, but can also include music, smells, and visual stimuli. Cats are hunters, so providing places for them to climb and toys that move around and release food are examples of cat enrichment. Dogs have a very keen sense of smell, so providing puzzle toys with hidden food items can be stimulating. Sometimes crate training is recommended, but this is only suitable for a pet that does not show increased distress when placed in confinement.
- **Behavior Modification:** These are a series of exercises or new behaviors recommended to teach your pet how to be more independent, relax, and to perform more appropriate behaviors. For example, if your pet is excessively licking or chewing a part of the body, an appropriate behavior would be to lick or chew on a frozen treat or food-stuffed toy.
- **Medication:** Your veterinarian will likely recommend medication for Separation Anxiety. Anxiety-reducing medication can help pet respond better to behavior modification.

The most important consideration as an owner is to understand that the destruction, inappropriate urination or defecation, and other signs your pet is displaying, are the result of anxiety, distress, and panic. Taking care not to yell at or physically punish your pet for the mess or destruction discovered on your return is important, as these actions will contribute to their distress. Instead, work closely with your veterinarian to formulate a complete behavioral treatment plan to reduce the anxiety and increase their comfort and independence.






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Hot Weather Health Tips for Your Horse

> Content contributed by MAJ Jessica J. Huwa, DVM, Army Medical Department Center & School

Summer is just around the corner! Although school will be letting out and many families are planning vacations, horse owners must also prepare for the heat. Hot, humid weather can be dangerous for your horse. Taking a few simple precautions will keep your horse healthy and safe.

Sun Protection & Proper Ventilation

A horse's haircoat protects their skin but a sunburn can still occur on any areas of non-pigmented skin (pink areas). Sunburn may also occur on the end of the nose and around the eyes since there is very little hair. Ensuring horses have shelter that provides full-body shade will help keep them cool and out of the sun's harmful rays. Many fly masks also incorporate sun protection and can be used to help protect your horse's face from sunburn while out to pasture. If your horse is stabled in a barn without air conditioning, utilize proper ventilation (open windows and doors) as well as fans to keep temperatures below 90°F. Horses have difficulty regulating their body temperature above this limit. Trailering your horse in hot weather can result in dehydration and overheating due to the enclosed space. Transport horses only when they're in good health. Keep the trailer as cool as possible by opening all windows and roof vents, and using small oscillating fans and floor mats. Always load your horse after everything else has been packed to reduce the time they spend in a hot trailer.

Water Availability

Horses must drink plenty of water during hot weather to regulate their body temperature through the cooling effects of sweating. Depending on your horse's diet and exercise routine, they will drink between 5 and 15 gallons of water a day. If your horse is fed hay or grain and stabled in a barn without air conditioning, be sure to check their water buckets 2-3 times a day to ensure they have plenty of water. Their bodies will lose a significant amount of water from sweating and digesting dry forage, which can lead to severe dehydration and overheating. If your horse is on pasture, monitoring their water intake will be a bit harder. Grazing



horses will ingest a large portion of their daily water needs from the moisture in pasture grass; however, the dry summer heat will decrease the amount of water available in field forage. Be sure your horse always has unrestricted access to clean, cool water. If your horse is pastured with other horses, know where your horse stands in the herd pecking order. More dominant horses may chase lower ranked horses away from the water trough. Installing a second water source can ensure all horses have unrestricted access to water, regardless of their ranking within the herd.

Fly Control & Parasite Protection

Many insects found in barn or pasture environments carry parasites and viruses.









These insects thrive in warmer temperatures, reproduce in manure, and come in close contact with horses. House flies and face flies can transfer worm larvae to moist areas around your horse's eyes, nostrils, mouth, and genitals. In addition to transmitting several infectious diseases, biting insects such as gnats, black flies, stable flies, and horn flies can also cause insect bite hypersensitivity that results in severe itching, skin damage, hair loss, and secondary skin infections in some horses. Prevent insect bites by using masks, sheets, and boots in addition to applying fly repellents. Control measures such as promptly removing manure and wet bedding, staging manure piles far from the stable, using fly spray or trap systems, and installing fans will help reduce insect populations in the stable. Mosquito-borne diseases to include Eastern Equine Encephalitis (EEE) and Western Equine Encephalitis (WEE) also tend to occur in the summer months with the rise in mosquito populations. Vaccination against these viruses can help prevent serious neurological disease. Prevention is critical to keeping your horse healthy, so be sure to discuss fly control, parasite, and vaccination protocols with your veterinarian before the summer starts.

These simple precautions will help you beat the heat and safeguard your horse's health during the hot summer months!

Food Safety Tips

> Content contributed by CW4 Alma J. Mendoza, US Army Natick Soldier Research, Development and Engineering Center, Natick, MA

According to the Centers for Disease Control and Prevention (CDC) food safety ranks in the top 10 most important public health problems. Common food handling mistakes such as not washing your hands or chilling food properly can make you sick. The good news is we can all take steps to make sure the foods we purchase, prepare and consume are safe and sanitary. Follow these 4 steps to handle food safely at home.

|  Step 1 |  Step 2 |  Step 3 |  Step 4 |
|---|---|--|---|
| <p>Steps to properly wash your hands include: running your hands under potable water, apply soap, rub vigorously for 10-15 seconds, thoroughly rinse under potable water and dry your hands with a paper towel.</p>  |  |  |  |
| <p>Clean</p> <p>Always wash your hands after using the restroom and before handling food. The CDC states that proper handwashing is the single most important means of preventing the spread of infection. Many foodborne illnesses occur when people do not wash their hands after using the restroom.</p> <p>Wash hands and utensils, cutting boards, and counters often. Raw meat, poultry, and eggs can spread bacteria onto your kitchen surfaces and should be kept separate from fresh fruits and vegetables. Avoid handling and preparing foods when you are sick. Coughing or sneezing and touching or scratching body parts are also habits that can lead to contamination of foods.</p> | <p>Separate – Don't Cross Contaminate</p> <p>Cross Contamination is the transfer of a harmful substance, such as bacteria, from one food to another. Prevent cross contamination by using separate cutting boards & knives for raw meats and produce, if possible, or washing with soap and water after each use. Separate raw meats and eggs from other foods in the shopping cart, grocery bags, and refrigerator. Also, never place cooked foods on a plate that previously held raw meats or eggs.</p> | <p>Cook</p> <p>Cooking foods to proper internal temperatures is critical in order to kill harmful bacteria. A properly calibrated thermometer is needed to verify the internal temperature of foods as the color change of the food is not an indicator it is safe to eat.</p> <p>Find safe food temperatures at https://www.foodsafety.gov/keep/charts/mintemp.html.</p> | <p>Chill</p> <p>Refrigerate foods promptly after purchase. Bacteria reproduce rapidly at temperatures between 41°F and 135°F, known as the temperature danger zone (TDZ). Remember this rule of thumb, if foods remain in the TDZ for 4 hours or longer, it is best to throw it out!</p> <p>If you have any food handling questions, contact your local food inspection office co-located in most commissaries or preventive medicine.</p> |

References: ServSafe Manager, 7th Edition, TB Med 530/NAVMED P-5010-1/AFMAN 48-147 JP – Tri-Service Food Code, <https://www.fda.gov/Food/FoodbornellnessContaminants/BuyStoreServeSafeFood/ucm255180.htm>, and <https://www.foodsafety.gov/keep/basics/index.html>

Veterinary Connections



Goal of publication:

- Veterinary Connections is a quarterly publication written by Army Veterinary Service personnel and published by the Army Public Health Center to inform and educate Service members, beneficiaries, and retirees about Animal Health, Food Safety, and One Health.
- One Health refers to the intersection and overlap between animals, humans, and the environment.
- Army Veterinary Service personnel serve around the world supporting the Department of Defense as proponents for Animal Health and Food Protection.

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