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*News about Animal Health, Food Safety, and One Health.
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Cold Weather Care for Our Pets

With the cold weather months now upon us, it is time to think about preparing our homes, vehicles, and ourselves for the drop in temperatures. If you have pets, you should also start thinking about how to protect them from the elements and from the potential health risks that accompany cold weather. Pets can develop dry, itchy, and flaky skin just like we can, so it is important to understand how to protect their skin. Perhaps more importantly, pets that go outdoors can be exposed to harmful chemicals such as antifreeze and ice-melting agents or can even develop hypothermia.

Antifreeze is a lethal poison for dogs and cats. Just one lick can provide enough toxin to cause kidney failure and death. Do not let your pet roam free outside and be sure to clean up any spills from your vehicle. If you suspect your pet may have licked up any antifreeze, seek emergency veterinary care immediately.

A common ailment that many of us experience during the weather is dry skin. Pets can develop this on their skin as well as on their foot pads and in between their toes. One way to combat this is to keep your home humidified to counteract the hot, dry air from our closed heating systems. Consider wiping paws off during and after walks to remove any potential ice, salt, and chemicals that can build up or stick to the fur or between toes and cause cracks in the paw pads or redness between the toes. You can place petroleum jelly or other protectants into the paw pads before and after walks. Booties are also a good alternative if your pet will tolerate them.

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“ You should also start thinking about how to protect them from the elements and potential health risks from the cold weather ”

Cold Weather Care for Our Pets

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Do not shave your pet's hair during the cold weather months as this removes the thick undercoat that is meant to shield your pet from the elements. Resist bathing too frequently in the winter as this can dry out the skin even further. If you use ice melts, look for a pet-friendly product.

Keep pets indoors at night and during the daytime with a warm comfortable bed, away from drafty windows and doors. If you must keep your pet outdoors for any length of time, ensure you have a well-insulated cat or dog house that is slightly larger than the pet (large enough for them to stand up, turn around, and lay down), ideally with a flap to cover the entrance and sufficient dry bedding. Make sure they have access to a fresh, non-frozen water source at all times. Consider dressing the pet in a coat or sweater if he or she is of the short-haired variety. Do not leave pets unattended in vehicles, as the vehicle can become very cold quickly and actually can act as a refrigerator, effectively holding in the cold air. Pets can quickly develop hypothermia in freezing weather. If you think your pet has a low-body temperature, you should seek veterinary care for them immediately. If you are going to warm your pet, use caution with warm rice packs, electric blankets, heating pads, and hot water blankets as they can cause burns. Do not leave any animal unattended when warming. Always monitor for signs of discomfort and increased redness or heat to the skin while warming your pet because of the risk of causing burns.

Follow these tips to help keep your pet warm, safe, and healthy during the cold weather months!

> Article contributed by veterinary personnel at FT Leavenworth, KS



World Rabies Day and Six Things to Know About Rabies

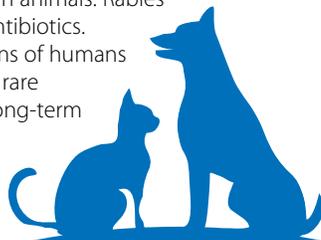
When you hear the word “rabies,” what image comes to mind? For most people around the world, it is a salivating, angry dog. In some places around the world, this image is still accurate. The dog is the most common vector, or transmitter, for the rabies virus to humans around the world. However, the dog is not the only animal that poses a threat of spreading rabies, especially in North and South America.

The Global Alliance for Rabies Control (GARC) organized the first World Rabies Day on September 28, 2006. This day is important because it is the anniversary of the death of Dr. Louis Pasteur. Many may recognize the name as he developed the method of “pasteurization” that kills microorganisms in liquids and in some cases solid foods using heat to decrease the bacteria that can cause food spoilage and foodborne illness. Pasteur also played a significant role in developing the first vaccine against rabies virus to prevent human deaths.

Six Things You Should Know About Rabies

1. There is no cure for rabies. Once symptoms are present, it is nearly 100% fatal in humans and always fatal in animals. Rabies is a virus and cannot be treated with antibiotics. There have been a few noted exceptions of humans surviving rabies. However, they are the rare exceptions, and most survivors suffer long-term side-effects from the disease.

2. The World Health Organization (WHO) estimates 40,000–60,000 human rabies deaths worldwide each year. The majority of the deaths occur in the continents of Asia and Africa. In the United States, rabies is the cause of about 2 to 3 human deaths per year—a very dramatic difference. The WHO estimates that 95% of rabies deaths around the world are attributed to bites from a dog. However, in certain locations around the world, particularly in Central and South America, bats are the most common vector for rabies causing human deaths. In the United States, bats, raccoons, coyotes, foxes, and skunks are the most common wildlife vectors of the rabies virus. In the United States, the incidence of rabies in domestic cats is on the rise. The Centers for Disease Control and Prevention (CDC) reported that cats accounted for 61.1% (272/445) of the rabid domestic animals reported in 2014, a 10.12% increase compared with the 247 reported in 2013.
3. In the United States, local, state, and county laws require vaccinating companion animals. In most instances, a puppy or kitten receives its first rabies vaccine at 3 to 4 months of age. The pet must receive a booster 1 year later, and again every 3 years. Some municipalities and counties have different requirements for rabies vaccination. Consult with your veterinarian to determine what the vaccine requirements are for your state/county.
4. Be a smart traveler for you and your pet. If you and your family are relocating overseas, consult your veterinarian as soon as possible. Several countries have very strict regulations and requirements for rabies vaccination in order to bring your pets into their country.



**World Rabies Day:
September 28, 2016**

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Military Working Dog Spotlight

Military Working Dog Bobby, pronounced “Bobby,” is a 5-year-old patrol and explosive detection-trained German shepherd dog assigned to Holloman Air Force Base, NM. Bobby was most recently deployed to Southwest Asia, returning home in January 2016.

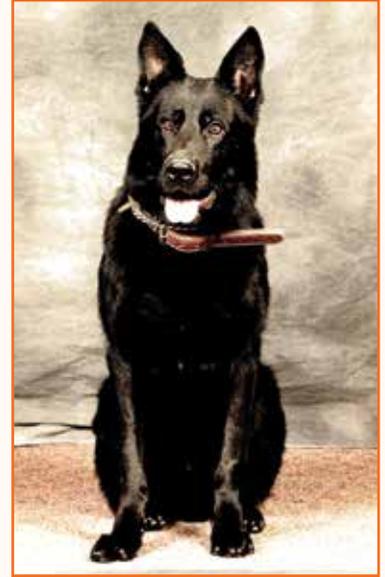
In late April, Bobby’s handler noticed a firm, 5-centimeter swelling that seemed to have appeared overnight on the left side of his lower jaw. Worried, the handler brought Bobby to the Holloman Veterinary Treatment Facility, where Army Veterinary Corps Officer CPT Lambden examined Bobby. “Initially, we weren’t sure what caused the swelling, but upon aspiration of the mass with a needle and the removal of green and white fluid, I suspected it was an abscess. I still didn’t know what caused it, but it could have been a dental-related issue, an abscess from an insect bite, or more commonly a foreign body.” However none of these could be immediately ruled out, and the origin/cause of the swelling remained unknown. Examination of the inside of Bobby’s mouth showed some inflammation of the gingiva (gums) but no obvious tooth abnormalities except for routine wear on the canines.

The clinic staff took x-rays of the swollen jaw and saw a telltale sign: radiolucency, or reduced density of the bone, in a halo around the root of the lower canine tooth. In a collaborative effort, Air Force Capt. Kyle Astle, a dentist at Holloman, also participated in Bobby’s case adding valuable insight that, although he was not a veterinarian, was beneficial in correctly evaluating Bobby’s condition. The abscess had most likely occurred due to micro-trauma to the tooth enamel,

possibly during bite work while training or deployment and was not evident on Bobby’s annual dental exam. Bacteria can track down those micro-fractures into the periodontal ligament that surrounds the tooth and then into the bone. The abscess may have been building for some time within the jawbone but only became visible from the outside when it broke through the bone.

In an animal, a canine tooth-root abscess can be addressed with removal of the affected tooth, or with a root canal, which is the standard of care. Because working dogs depend on their canine teeth to bite and hold during patrol work, it is essential to avoid removing the teeth unless absolutely necessary. After a successful root canal performed by the team of CPT Lambden and Capt. Astle and a 4-week course of antibiotics, Bobby is fully recovered and has returned to duty.

Dental disease, caused by either severe tartar buildup or trauma to teeth, can result not only in abscesses like Bobby’s, but also in painful teeth and gums, bacteria in the bloodstream, and/or heart, kidney, and other systemic problems. CPT Lambden reports, “We recommend daily tooth brushing—it is not as hard as you think—and the use of products approved by the Veterinary Oral Health Council for reducing tartar and the prevention of periodontal disease. We also warn pet owners against letting their pets chew on bones, antlers, hooves, or anything hard enough to fracture a tooth. Finally, it’s important to have regular veterinary checkups to assess oral health and anesthetized Comprehensive Oral Health Assessment and Treatment as often as your pet requires.”



Military Working Dog (MWD) Bobby



Military Working Dog (MWD) Bobby’s tooth radiograph during root canal

> Article contributed by veterinary personnel at Holloman AFB, NM

World Rabies Day and Six Things to Know About Rabies

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Often, these regulations require at least 6-9 months of prep and lead-time in order to ensure your pet is properly vaccinated/tested. If you and your family are traveling, check to see what the risk of rabies is for your destination. Plan and know where the approved medical facilities are located in the case of an emergency, such as an animal bite.

5. Prevention is the key. Vaccinate your pets for rabies. Another important strategy is to learn about animal bite avoidance, and teach children effective methods to avoid animal bites. The Army Public Health Center Veterinary Services, as well as the The American Veterinary Medical Association and the American Society for the Prevention of Cruelty to Animals, publish educational brochures, posters, and information on their Web sites concerning bite avoidance and rabies.
6. Lastly, if you are bitten by an animal follow these steps:
 - a. If the bite is severe and is a threat of loss of life, loss of limb, or loss of eye sight, seek emergency medical attention immediately.
 - b. If the bite wound is not severe, wash the wound with soap and water for 15 minutes then immediately seek treatment from your primary care physician or emergency room.

> Article contributed by veterinary personnel at 98th Civil Affairs Battalion (ABN), FT Bragg, NC



Milk Anyone?

Everyone enjoys a cold glass of milk, especially when it accompanies a warm batch of freshly baked cookies. While milk and milk products provide a range of nutritional benefits, consuming raw milk or eating cheese made from raw milk can make you and your family members very sick. Raw milk from cows, sheep, and goats may contain disease-causing bacteria, such as *E. coli*, *Salmonella*, *Campylobacter*, and *Listeria*. The U.S. Centers for Disease Control and Prevention (CDC) determined that in the last decade, over 1,500 people in the United States became sick from drinking raw milk or eating cheese made from raw milk.

Pasteurization is a process used to destroy harmful bacteria in foods such as milk and create a safe product for consumption. The process of pasteurization has been around for over a century and was first developed by the French scientist, Dr. Louis Pasteur, to prevent spoilage of beer and milk. The pasteurization of milk requires every single milk particle to be heated to a specific temperature and held at that temperature for a set period of time to kill any harmful bacteria.

Unpasteurized/raw milk containing harmful bacteria often does not look, taste, or smell different than pasteurized milk. The only way to make sure that a milk product does not contain harmful bacteria is to verify that the label states it was pasteurized.

Pasteurization does not affect the nutritional value of milk. Although there are many myths that pasteurization can cause food allergies and lactose intolerance, these myths have been scientifically disproven. Lactose is present in the same quantities in both raw and pasteurized milk. Therefore, the pasteurization process has no effect on an individual's ability to metabolize lactose.

Additionally, the CDC has determined that consumption of raw milk or unpasteurized milk products makes an individual 150 times more likely to develop foodborne illness than consumption of pasteurized products. Foodborne diseases resulting from consumption of raw milk may cause stomach cramping, vomiting, and diarrhea and can lead to severe and even life-threatening illness. Less commonly, consumption of raw or unpasteurized milk products may result in paralysis (Guillain Barre Syndrome) and kidney failure (Hemolytic Uremic Syndrome). Raw-milk consumption is especially dangerous for children, the elderly, people with weakened immune systems, and women who are pregnant. Pregnant women are at an increased risk for developing listeriosis, which can lead to a mother becoming ill and possibly loss of the unborn child.

The U.S. Food and Drug Administration advises that pasteurized milk and cream, hard cheese aged over 60 days, and products made from pasteurized milk (such as yogurt, pudding, ice cream, cottage and ricotta cheese) are safe to consume. Unpasteurized milk and cream, soft cheese (such as Mexican style cheese) and other products made from unpasteurized milk are not recommended for consumption. Most milk and milk products sold commercially in the United States are pasteurized products. Milk and milk products sold on military installations by the Defense Commissary Agency, The Exchange (or AAFES), or the Navy Exchange are also pasteurized products. Store pasteurized milk in the refrigerator. Do not leave milk at temperatures above 45 degrees Fahrenheit for over 4 hours.

> Article contributed by veterinary personnel at Aviano Air Base, Italy

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Veterinary Connections



Goal of publication:

- Veterinary Connections is a quarterly publication written by Army Veterinary Services 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 Services personnel serve around the world supporting the Department of Defense as proponents for Animal Health and Food Protection.

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