

Veterinary Connections



*News about Animal Health, Food Safety, and One Health.
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Benefits of **Pet Ownership**

The first reason that people give for adopting a pet is that they want companionship for themselves or their children. There is no doubt that pets provide this to families around the world. But did you know that pets have also been shown to provide specific physical and mental health benefits to children and adults?

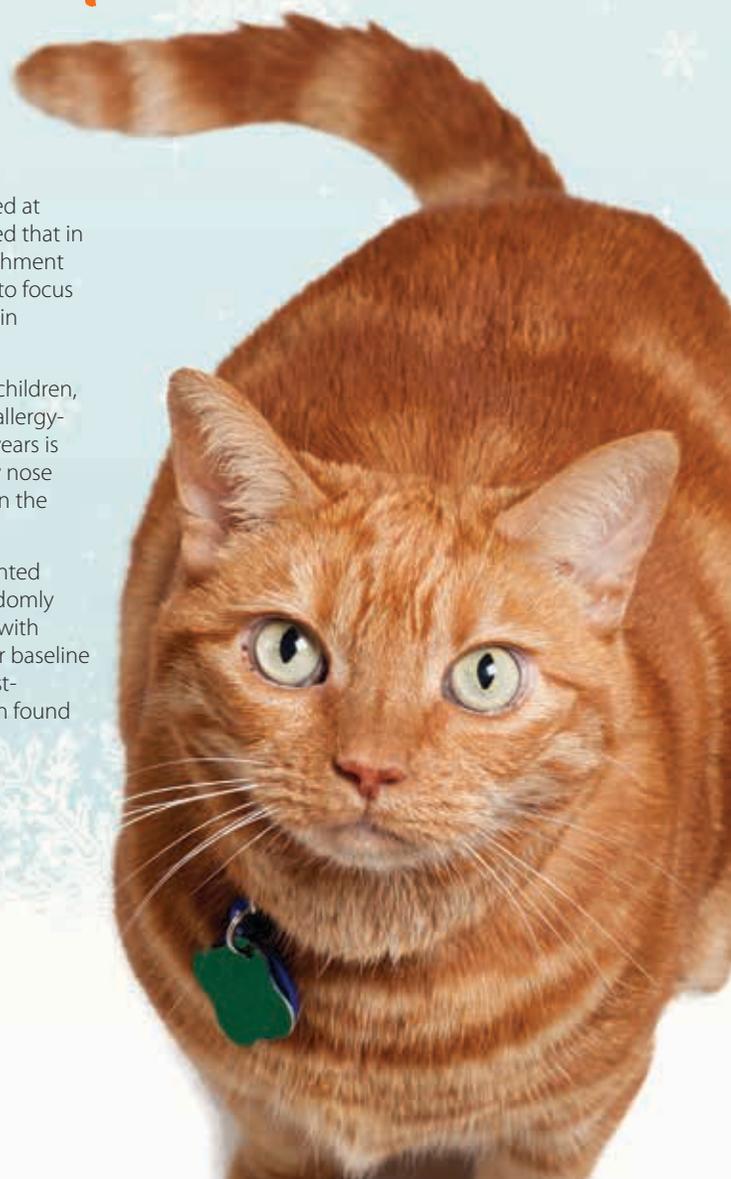
One recent study by Tufts University and the Military Child Education Coalition looked at benefits of pet ownership for military children in grades 6-12. The researchers showed that in the case of a deployed parent, coping skills were better in children with strong attachment and investment in the care of a pet¹. The resiliency associated with children having to focus their care outward, appears to help establish and maintain relationships better than in children with no pet or with little involvement with the pet in the household.

While learning resiliency and responsibility are important skills pets can teach older children, exposure to pets within the first 2 years of life may actually decrease a child's risk of allergy-related diseases. Several studies have shown that having a pet present at birth to 2 years is correlated with lower risk of asthma, eczema (skin rashes), and allergic rhinitis (runny nose and eyes)². Theories on why include the idea that exposure to pet allergens may train the baby's immune system not to overreact when exposed to allergens later in life.

What about adults? What benefits can they get from pets? One of the best-documented benefits is stress reduction. In one study, people with high-blood pressure were randomly assigned to adopt a pet. After just 6 months, patients with pets responded to stress with lower blood pressure and heart rate than patients without pets and returned to their baseline non-stressed values faster³. The American Heart Association notes that while the best-documented studies are with pet cats and dogs, this stress reduction effect has been found in cases of pet goats, fish, and even snakes.

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“Our pets bring many amazing qualities to our lives”



Pet Obesity

With the human obesity problem rising every year in America, veterinarians are seeing an increasing trend in obesity in pets as well. Many pet owners do not realize that due to the size difference between most pets and humans, one pound of fat on a small dog or cat is comparable to 5 pounds of fat on a human. Just like humans, pets who are overweight are at a higher risk for many medical diseases. A few diseases overweight pets are at a higher risk for developing are: arthritis, heart disease, respiratory problems, diabetes mellitus, decreased life expectancy, and increased surgical and anesthetic risks, to name a few.

Even the most loving, dedicated pet owner can let treats add up and allow “Fluffy” to get overweight. Add in the vast variety of dog and cat breeds with different body shapes and sizes and the proper weight of each individual pet can become quite complex. Below are a few guidelines to determine if your pet is overweight:

- Difficultly feeling ribs under fat
- Sagging stomach (can grab a handful of fat)
- Broad flat back
- No waist (tummy tuck) when viewed from side or from above
- Fat rolls around neck and base of tail

Not every case of an overweight pet is the result of the owner. There are several diseases and medical conditions that can cause excess weight gain despite the best efforts of the owner. Hypothyroidism and Hyperadrenocorticism (Cushing’s disease) are common metabolic diseases that cause excessive weight gain. Your veterinarian can help formulate a diagnostic plan to evaluate your pet for these diseases.

Fortunately, there are lots of ways for owners to help their pets lose weight and become healthy. First step is to have your pet assessed and tested for metabolic diseases by a veterinarian to determine if a medical condition exists. The veterinarian can also help determine an ideal weight range for your pet and a plan to get them there. Crash diets are as bad for your pet as they are for you. The weight took time to put on, so time is needed to safely take it off. Start by examining the type of foods that you feed your pet and make sure it is the right kind of food for its size, breed, and lifestyle (a couch potato pug does not need to be eating high calorie active dog food). If your pet needs extreme weight loss, speak to a veterinarian about a prescription diet made specifically for weight loss. Cut out all human food, and ensure everyone in the household understands to only give pet food to your pet. If this proves to be particularly hard for some, separate your pet from people when dinner is served. Feedings can be split into two to four smaller meals (this will help your pet feel full and make begging less of an issue). Increase exercise slowly such as slightly longer walks, swimming if the weather is nice, and more play time. It can take a while to see results, but with time and diligence, Fluffy can reach an ideal weight and live a happier and hopefully longer life.



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Benefits of Pet Ownership

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Some other benefits of pet ownership are associated with a particular kind of pet. For example, studies have shown that children and adults who walk their dogs regularly are less likely to be obese³. Another study has shown that losing weight together with their dog can be a great motivator for people to get out and start exercising³. For cat owners, their quixotic behavior of purring may have health benefits for you and your cat. Scientists have discovered that cats (domestic and wild) purr at the same frequencies (20-100 hertz) that doctors have used for decades to help speed muscle and bone recovery from injury, increase bone density, and reduce pain⁴. So if your workout has got you beat, maybe try convincing your cat to purr on your lap!

From encouraging mental resiliency to reducing stress, promoting healthy activity levels or reducing the risk of allergies, our pets bring many amazing qualities to our lives. They enrich our experiences, and through their unquestioning devotion, they encourage us to be the best—and healthiest—versions of ourselves.

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Veterinary Preventive Care

Routine preventive care is essential to keeping your pet healthy and promoting longevity. As many people know, it is important to feed pets a healthy diet appropriate for their life-stage and to provide them with routine exercise to help maintain physical and mental fitness. However, addressing your pet's overall health and wellness starts with a thorough annual veterinary exam, which should include several tests for preventing disease and identifying possible parasites.

Heartworm disease, first discovered in the United States in 1847, was largely believed to exist only in the warm tropical climate of the Southeast. Over the last 50 years, Heartworm disease has slowly spread across the continent and has been diagnosed in all 50 states. This disease is spread when an infected mosquito bites your pet and deposits the heartworm larvae (*microfilaria*) under his/her skin. Over a 6-month period, the larvae mature and migrate to the blood vessels near the heart where they can grow up to 12 inches in length. If left untreated, the worms will eventually cause lung disease and lead to heart failure. It is essential to have your pet tested for Heartworm disease yearly and administer an approved heartworm preventative every 30 days or as recommended by manufacturer. Heartworm preventatives kill the *microfilaria* that mosquitoes deposit under the skin, and many preventatives are also effective against intestinal parasites. Cats can also be infected with heartworms. Annual testing is not required for cats, but monthly heartworm preventatives are strongly advised. Regardless of your geographical location, the American Heartworm Society recommends year-round heartworm prevention for both dogs and cats.

Pets can be infected with both external and internal parasites. The most common external parasites include fleas and ticks. Fleas can make your pet miserable and can also result in an infestation in your home! In addition to being a nuisance, fleas can transmit diseases to people (murine typhus, cat scratch disease, plague). Ticks can also transmit serious diseases to you and your pet, including Lyme disease, *Ehrlichia* spp., *Babesia* spp., tularemia, and Rocky Mountain spotted fever. There are many products available for flea and tick prevention. Talk with your veterinarian to determine which product will work best for your pet.

Common internal parasites include hookworms, round-worms, and whipworms, which are intestinal parasites and can cause diarrhea, weight loss, and a dull hair coat in pets. Some intestinal parasites, including roundworms and hookworms, can be transmitted from animals to people, especially young children. Your veterinarian can examine and treat your pet for both external and internal parasites.

Vaccines are categorized as core and non-core. Core vaccines are recommended for pets of all ages and lifestyles. The core vaccines for dogs are rabies virus, distemper virus, parvovirus, and hepatitis adenovirus. The core vaccines for cats are panleukopenia virus (feline parvovirus), calicivirus, herpes virus, and rabies.

Non-core vaccines for pets are available and administered based on geographic location and lifestyle. Talk with your veterinarian to determine if your dog should receive the Bordetella (kennel cough), Leptospira, or Lyme disease vaccines. Your veterinarian can also help you determine if you should vaccinate your cat against Feline Leukemia Virus or Feline Immunodeficiency Virus. While all of these diseases cause pets to be extremely sick and are sometimes fatal, all are easily prevented with a series of vaccines. Your veterinarian will create the proper vaccination schedule for your pet based on local laws and your pet's age, risk factors, previous immunizations, and lifestyle.

Oral health is often overlooked in our pets. Many signs of dental disease can be easily noted and can include a fractured tooth, bad breath, or difficulty eating. However, some signs of oral pain are easily hidden. Dental care starts at home and can be achieved by routinely brushing your pet's teeth. Be sure to use toothpaste that is specifically designed for pets, as human toothpaste can be toxic. Gradually introduce your pet to teeth brushing until you are brushing each day. Regular teeth brushing can remove plaque and prevent tartar. Once tartar has built up on the teeth, a dental cleaning by a veterinary professional under general anesthesia is required to remove it. Many pets require a yearly dental cleaning to remove tartar buildup and extract any diseased teeth. In addition to routine care at home, discuss options for dental treatment with your veterinarian.

There are several aspects of veterinary medicine to consider when discussing your pet's complete health with your veterinarian. Addressing preventive measures including annual exams, vaccines, parasite control, and oral health will improve your pet's overall health and wellness while reducing the risk of disease, making for a happier and healthier pet.

“Preventive measures including annual exams, vaccines, parasite control, and oral health will improve your pet's overall health and wellness.”



Slow-Cooker Food Safety

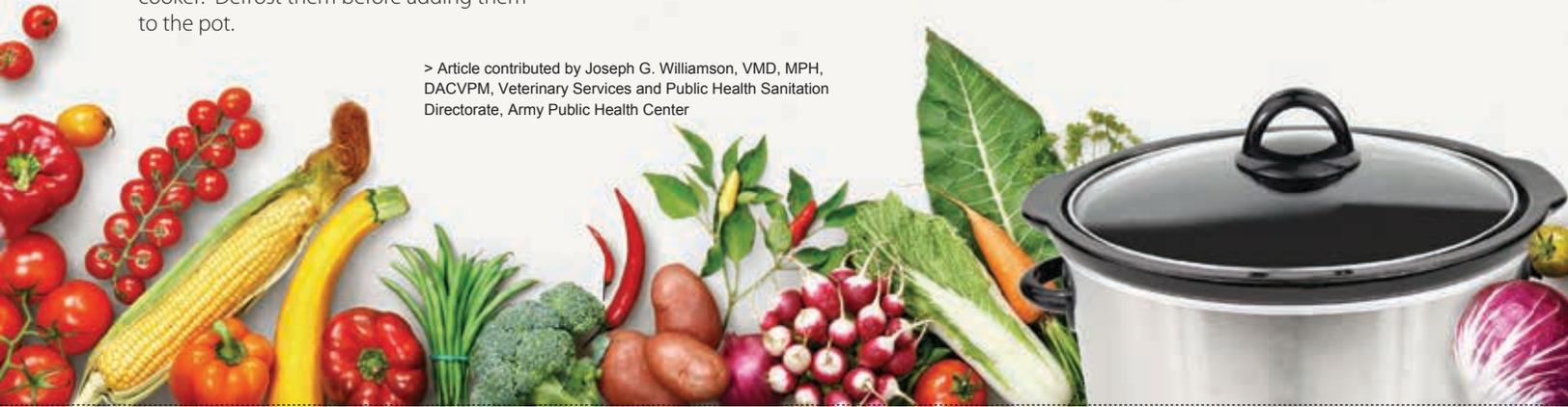
Slow Cookers have become a standard for cooking and serving nutritious meals for the family while we work and play through our days. Any time of the year, a slow cooker can make preparing nutritious and safe meals easier and life a little more convenient.

Slow cookers, also known as crockpots, will heat and cook food at a lower temperature for a longer period of time, so the question of food safety becomes a concern. The average slow cooker cooks at approximately 175°F on low and up to 375-400°F on high. Bacteria thrive at temperatures below 140°F with most bacteria killed at 165°F. Slow cookers are designed to cook food above the 140°F threshold when left covered. Do not stir or "check" the meal in the crockpot as this interrupts the cooking process.

Follow these tips when using your electric slow cooker:

- Always begin with a clean cooker, utensils, and work area. Wash hands before and during food preparation.
- Avoid using frozen foods in your slow cooker. Defrost them before adding them to the pot.
- Always thaw meat or poultry before putting it into a slow cooker.
- Keep all perishable ingredients refrigerated until it is time to use them.
- When preparing meats and vegetables in advance, avoid cross-contamination and do not mix them together until you are ready to cook. If you need to defrost ingredients or intend to sauté your meat and/or vegetables, do so just before adding them to the slow cooker.
- Meat and poultry should be cooked entirely within the slow cooker and not removed and reheated later.
- Most slow cookers heat from the sides, so for even heating and the best results, fill the crock to at least half and no more than three-fourths full of ingredients.
- It is best to cut large pieces of meat into smaller ones, and it is not recommended that you use a slow cooker to roast a whole chicken.
- For most recipes, you should start cooking at the highest setting to allow the food to reach an internal temperature above the 140°F "danger zone", then adjust the dial to a lower temperature for extended slow cooking.
- Do not open the cooker and do not stir the ingredients in the crock while cooking, it is not necessary and interrupts the cooking process.
- Check for doneness of meats with a quick-read meat thermometer. Meat should be cooked to the following internal temperatures: Poultry breasts to 165°F, and beef/pork/lamb/veal (steaks, roasts and chops) to 145°F.
- Refrigerate leftovers within two hours of serving. Never store leftovers in the crock.
- Never use a slow cooker to reheat foods.
- Read and follow the recipe and slow cooker's manufacturer's instructions when cooking in this manner.

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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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