



Shelter Watch



Our Mission:

We are committed to saving lives and reducing suffering of homeless dogs and cats through education, advancement of knowledge and shelter outreach.

Program Staff:

- Dr. Jan Scarlett, Program Director
- Dr. Elizabeth Berliner, Director of Clinical Programs
- Ms. Kelley Bollen, MS, CABC, Director of Behavior Programs
- Ms. Kelly Garner, MA, Program Coordinator
- Ms. Sue Honig, MS, Computer Technician
- Dr. Mike Greenberg, Clinical Fellow

Shelter Medicine Interns:

- Dr. Kate Gollon
- Dr. Nicole Putney

Contact Information:

Shelter Medicine Program
Cornell University
College of Veterinary Medicine
SI-066 Schurman Hall
Ithaca NY 14853

(607) 253-3349

sheltermedicine@cornell.edu

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From the Director's Desk

A few years ago, I had a discussion at a meeting with a shelter software vender about getting data from his software and using it to evaluate a particular problem. Despite his obvious willingness to help me, we couldn't seem to make each other understand what we were saying. After a couple of frustrating minutes, he paused and said, "Oh, now I understand. You are trying to use the data to get at the truth." "Well, yes," I blurted back. "Doesn't everyone?" I was naïve. People use data for many varied reasons. This story came to mind as I sought data regarding the numbers of rabbits entering and being euthanized in animal shelters today and in the past.

Researching the question of how many rabbits enter shelters, I encountered quotes ranging from "90% of rabbits purchased for Easter as pets end up abandoned or don't live to see their first birthday", "The House Rabbit Society estimates that up to 90% of all bunnies bought as pets for children, die of poor care or are abandoned in shelters where they may be euthanized" all the way to "More than 7 million rabbits are euthanized every year due to rabbit overpopulation." The basis for every one of these statements is unclear because no organization systematically collects intake data for any species (including dogs and cats) from

shelters across the country. Also, to my knowledge, scientific studies of pet rabbit dispositions have not been published.

So why are statistics made up and circulated? -- probably in the hope that they help raise money, increase awareness of the homeless rabbit problem and encourage responsible decision-making regarding acquisition and care of rabbits. Being a person who deals with numbers frequently, I don't know how much they help, but I worry that using unsubstantiated numbers undermines the value of accurate numbers. With many conflicting numbers circulating, how can the public discern the difference? Do we run the risk of people becoming "unmoved" by numbers because they don't know what to believe? Organizations (including many shelters) are working today to collect and compile accurate homeless pet numbers. This effort is time-consuming and expensive. I would personally like to see us use accurate numbers judiciously and truthfully, and have them count when we need them. Otherwise, our statistics may fail to have the impact that we hope.

Jan Scarlett, DVM, Ph.D.

Bunny Bites: Everyday Rabbit Nutrition: Dr. Nicole Putney

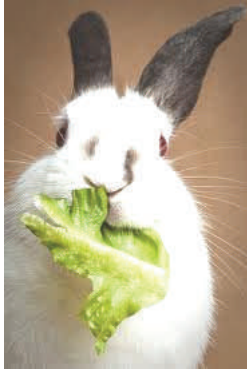
Rabbits are true herbivores that fall into the category of "hindgut fermenters" along with guinea pigs and chinchillas, meaning that they rely primarily on the microflora of their cecum to meet their nutritional needs.

Their specialized digestive system permits the efficient utilization of fibrous diets, making hay a cornerstone of every rabbit meal. Gastrointestinal motility and maintenance of microflora are critical components in overall rabbit health. In order to maintain these two

essential parts of rabbit health, proper diet is crucial. Below are general recommendations for what to feed rabbits, both in and out of the shelter.

Hay: Always provide Timothy or other grass hay to rabbits. Rabbits have adapted to a large volume/high fiber diet and should have access to grass hay at all times. Alfalfa and other legume hays are *not* recom-

(Continued next page)



Good veggie choices can include collards, chard, kale and parsley.

“Rabbits are a prey species, which has implications for all aspects of their care, including handling and restraint.”



Rabbits are the third most common species that we see in our animal shelters.

Bunny Bites: Continued from Page 1

mended as they predispose rabbits to obesity and urinary tract disorders such as bladder stones.

Pellets: ¼ cup daily *Timothy-based* pellets can be offered, but are not an appropriate replacement for hay. Alfalfa pellets are okay for growing, pregnant, or lactating rabbits, but should be switched to timothy-based pellets when they reach adulthood. Many new rabbit-owners mistakenly believe that pellets alone are a sufficient diet for their new pets. This could not be further from the truth! Feeding pellets alone predisposes to dental problems and gastrointestinal stasis. Pellets are recommended as *part* of a complete diet. Owbow® Timothy pellets are one high-quality brand available.

Do not feed seeds or nuts, beans, dairy or meat. Rabbits are strict herbivores. Some feed “mixes” for pocket pets such as guinea pigs and rabbits include seeds and nuts, which are high in fat and lack essential nutrients for these animals.

Vegetables & Fruits: Rabbits love variety! One of the most enjoyable things

about taking care of these interesting pets is making them a variety of “salads” and finding out what their favorites are. Good choices include collard greens, mustard greens, dandelion greens, chard, kale, parsley, and bok choy. Avoid spinach in large quantities. Also avoid iceberg and romaine lettuce as the nutritional content tends to be very low. Decrease the amount of leafy greens if it causes your rabbit to have diarrhea. Most rabbits also love fruit, but be careful when feeding it; in large amounts, fruit can cause abdominal pain, gas, and diarrhea. Start out with very small pieces of apples and/or strawberries (no more than 2 tablespoons per 6 pounds of body weight) and avoid high-sugar fruits such as mango and pineapple.

And of course, always provide water, both in a bowl and in a bottle. Rabbit gastrointestinal problems, such as bloating and stasis, are emergency medical problems, but hopefully through proper diet and care, these can be avoided.

For more information bunny care basics, please visit the House Rabbit Society at www.rabbit.org

Rabbit Handling: Dr. Mike Greenberg

After dogs and cats, rabbits are the third most common species that we see in our animal shelters. Unlike our canine and feline residents, rabbits are a prey species and have evolved to escape predators. This has implications for all aspects of their care, including handling and restraint. They are built for tremendous bursts of speed, with high muscle mass on lightweight skeleton. In turn, they are at greater risk for skeletal injury if handled improperly. Similarly, as fleeing is their primary defense mechanism, they are generally more comfortable when their feet are touching a surface. These characteristics of the species should not dissuade shelter staff from handling rabbits. Rather, keeping these things in mind should help to facilitate understanding of

the species’ needs and the reasons behind handling and restraint techniques.

For illustrations of the techniques described below, please download our *Step-By-Step Basic Rabbit Handling* guide at <http://www.sheltermedicine.vet.cornell.edu/shelter/documents/RabbitHandlingStep-By-Step.pdf>

Lifting, Carrying, and Placing Down

When lifting a rabbit, it is important that the hindquarters are *always* well supported. If rabbits are allowed to kick with their back legs, they risk generating enough force to cause injury to the vertebrae of their spinal columns. As a rule, if the rabbit begins to struggle, DO NOT attempt restraint or drop

the rabbit. Always be ready to place the rabbit back down on its feet.

To lift the rabbit, slide your right hand along the rabbit's right side and gently hold the chest. Slide the left hand beneath the rabbit and gently cradle the hindquarters. Supporting the hindquarters helps to prevent the rabbit from kicking. Rabbits that kick while resisting restraint are at risk of severe injury, including fractures to the spinal column.

Unlike dogs and cats who handle their young by the scruff, rabbits do not do this, and so there is reason to believe that this portion of their skin never evolved to be handled. If a rabbit *must* be scruffed, it is important to do so safely. Gently, but firmly grasp the scruff with the right hand, being sure to grasp a large portion of the scruff, as holding too small a portion will cause pain and will not facilitate adequate restraint.

Carrying

If transporting rabbits to a different area of the shelter, they should ideally be placed in a carrier. If simply moving the rabbit within one room, it is a good idea to allow

the rabbit to tuck her head between your arm and ribcage. Allowing the rabbit to "hide" this way will reduce stress.

Placing Down

When placing the rabbit back into a cage, it is important to understand that if the rabbit "sees" that he is about to be released, he will likely attempt to escape more quickly. Setting him down "hind-end first" can prevent such an attempt, and prevent injury.

Holding and Restraint

Rabbits may need to be restrained for examinations or other procedures. When placing a rabbit on an exam table, be sure to first place a towel or sheet on the table to provide a non-stick surface for the rabbit's sensitive feet. Gently place the rabbit's hind feet down on the table first. For particularly docile rabbits, basic restraint simply involves laying your forearms alongside the rabbit, cradling her chest with your hands and keeping your body against her rump. A "bunny burrito" towel wrap can be used if additional restraint is needed, as might be the case for oral exams, oral medication administration or venipuncture.



A "bunny burrito" towel wrap is a safe technique that can be used if needed.

"A skilled spay/neuter surgeon can train in rabbit surgery successfully by finding an appropriate surgical mentor and learning a few adjustments to his/her techniques."

Expanding Spay/Neuter Services to Rabbits: Dr. Elizabeth Berliner

Rabbits are infamous for their prolific breeding. A doe can become pregnant within days after giving birth. In some communities, domestic rabbit overpopulation is a serious issue. Furthermore, individual rabbits reap health and behavioral benefits from being altered, including a reduction in cancers for females, and behavioral benefits for both sexes. While there are noteworthy differences from dogs and cats, a skilled spay/neuter surgeon can train in rabbit surgery successfully by finding an appropriate surgical mentor and learning a few adjustments to their techniques.

Rabbit anesthesia

Most of the anesthetics and analgesics used in dogs and cats are safe in rabbit protocols. These include ketamine, valium, midazolam, dexmedetomidine, buprenorphine,

and metacam, as well as inhalant gases. A multimodal drug protocol is required for appropriate management of analgesia and anesthesia, and rabbits should be pre-medicated and induced using injectables prior to maintenance on inhalant anesthetics. Rabbits can be difficult to intubate, so some practitioners tightly mask them or use a newer endotracheal tube that covers the larynx rather than entering the trachea. However, experienced technical staff can learn to intubate rabbits safely and securely with practice and appropriate monitoring.

Rabbit spay procedures

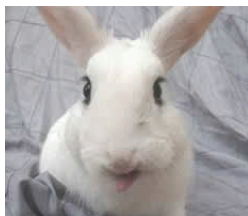
Does have slightly different anatomy which leads to adjustments in standard ovariohysterectomy procedures. For one, they have excessive fat in their broad ligaments, and more delicate suspensory ligaments; they are also predisposed to developing adhesions with handling of their abdominal tissues. Therefore, spay hooks are not





Fleas are common in rabbits just as they are in dogs and cats.

“Rabbits have their own set of “bugs” that can cause outbreaks, just like URI can in cats and “kennel cough” can in dogs.”



Principles that apply to cats and dogs with infectious disease should be the standard of care for rabbits as well.

Expanding Spay/Neuter Services: Continued from Page 3

used, and slightly larger incisions allow for gentle lifting of the uterus out of the abdominal cavity. Ligamentous fat can obscure large vessels, so the broad ligaments are routinely ligated rather than torn. And finally, does have two parallel cervixes, both of which should be removed by ligating at the distal vagina. Leaving uterine tissue predisposes does to developing adenocarcinomas, even if the ovarian tissue has been removed completely. Body wall closure is in two or three layers, with absorbable, buried sutures, as rabbits will chew at exposed skin sutures.

Rabbit neuter procedures

Bucks have the remarkable ability to reduce their testicles back into their abdomens at

will. Thus, they are often mistaken for being neutered, or cryptorchid. The testicles can be exteriorized into the scrotum with gentle pressure on the abdomen under sedation. Castration procedures are accomplished through scrotal incisions and ligation of cords, and may be done either “open” or “closed” depending on the surgeon’s preference. The skin is closed with tissue glue.

Useful Resources for More Details:

1. Johnston, M. Rabbit Ovariohysterectomy. *NAVCC Clinician’s Brief*. July 2005; 25-27.
2. Quesenberry K, Carpenter J. *Ferrets, Rabbits, and Rodents: Clinical Medicine and Surgery*. 3rd ed. Saunders; 2003.

Infectious Diseases of Rabbits in Shelters: Dr. Kate Gollon

It is important to recognize a few common infectious diseases that plague rabbits if you will be housing them in your shelter. Rabbits have their own set of “bugs” that can cause outbreaks, just like URI can in cats and “kennel cough” can in dogs. Fortunately, it is rare that rabbits share their diseases with cats and dogs. If you house multiple rabbits in your facility, biosecurity needs to be a top priority to prevent disease transmission between them.

Snuffles

“Snuffles” is one of the most common infectious diseases shelters will see in their rabbit population. The term “snuffles” describes a set of clinical signs that occurs when rabbits are infected with bacteria called *Pasteurella multocida*. Common symptoms include nasal discharge, loud respiratory noise, lethargy, decreased appetite and weight loss.

Unfortunately, recurrent infections are common and total elimination of the disease is quite difficult, especially in a stressful shelter environment. Transmission of this disease between rabbits is by direct contact, fomites (hands, bedding, dishes), and airborne spread. Cases of snuffles often warrant the use of antibiotics in a shelter setting. It is very important to never treat rabbits with oral penicillins, cephalosporins (Clavamox, for example) or macrolide antibiotics, or

fatal disruption of gastrointestinal flora will result! Baytril or sulfa antibiotics are popular choices for treatment. The bacterium that causes snuffles does not cause disease in cats or dogs.

Syphilis

Rabbit syphilis, caused by *Treponema sp.*, is a disease characterized by crusty ulcerated lesions around the lips, eyelids, nose, and vulva or penis of rabbits. This disease is transmitted via direct contact between rabbits, and is highly contagious. Cases are often self-limiting. If rabbits are housed in groups or disease is persistent, antibiotic therapy should be employed. The treatment of choice is injectable (not oral!) penicillin. Fortunately this disease is not transmitted to dogs, cats or humans.

Fleas

Fleas are common in rabbits just as they are in dogs and cats. In fact, these three species readily share the flea, *Ctenocephalides felis*. Flea treatment of rabbits in a shelter setting should be part of an intake protocol when fleas are visualized, or in geographic regions where fleas are endemic. Never use Frontline (fipronil) in a rabbit, as it is fatal. Revolution and Advantage are the preferred flea medications for rabbits.

This merely scrapes the surface of infectious diseases of rabbits, but hopefully highlights the

most common ones that will come through your shelter's door. Remember the principles that apply to dogs and cats with infec-

tious diseases, like patient isolation and environmental disinfection, should similarly be the standard of care for rabbits.

What's Important to a Bunny? Ms. Kelley Bollen, MA, CABC

Rabbits have become a commonly relinquished pet in many animal shelters so it's important that shelter staff understand their needs so that they can be cared for properly during their stay. Knowing about the behavioral needs of bunnies will also improve adoption counseling in hopes that the next home will be a forever home.

The first thing to understand about rabbits is that they are prey animals and as such they can present as shy and fearful or aggressive in the scary shelter environment. Bunnies need a place to hide when they feel overwhelmed or frightened. Providing them with a cardboard box for hiding, with two entry/exit holes so they never feel trapped is important. As a prey species, bunnies should never be housed in the same room as dogs or even in a place where dogs walk by on a regular bases. Scruffing a bunny is never advisable because this type of handling can imitate being "caught by a predator" and is very frightening. Rabbits also have poor near-distance vision and have a blind spot right in front of their nose so its important to avoid reaching towards their nose like you might with a dog because they may become startled and bite the approaching hand. Bunnies are ground-dwelling animals so being held up in the air is uncomfortable and they will often struggle, kick out or bite when held in this manner. In fact, most bunnies do not like to be held at all, something that adopters need to be informed about. Remember – a prey species is ever vigilant and things they perceive as dangerous can cause them to become defensively aggressive especially when the "flight" option is taken away from them by captivity.

Rabbits need exercise so it is important that their home cage is large enough for them to hop a few times to get from one end to another. They also like to sit up and survey their surrounding so make

sure their cage is tall enough for them to do so comfortably. A large dog crate is often a better choice than the traditional bunny cages that are often not roomy enough to accommodate these needs. Solid bottom cages are preferred over the wire-floored cages, which can cause sore feet and hocks. Pine or cedar shavings are never recommended for use as a floor substrate for bunnies because of health concerns. Newspaper is a much better option. Placing the bunnies in an exercise pen or a small room while their home cage is being cleaned can give them an opportunity for some much needed exercise.

Knowing the natural habits of rabbits will help you provide them with an enriched environment. Rabbits not only like to chew but they need to chew to keep their constantly growing teeth under control so providing them with items to chew is critically important. Toilet paper rolls stuffed with hay, clean, dry pinecones and untreated wicker baskets are recommended bunny chew items.

Rabbits like to dig and shred so providing things like cardboard boxes, paper bags, or baskets filled with hay or newspaper or an old yellow pages book can provide hours of digging and shredding activity.

Rabbits like to push, toss and punch things around their environment so provide them with things that allow for this fun activity such as straw balls, rubber toys and small cardboard boxes. Hanging items from the top of the cage to punch and push can be effective as well. A hanging carrot will serve as a play item and a food source. Rabbits also like to bunch and scrunch things up so providing a pillowcase or towel for this activity is recommended.

Rabbits can be wonderful pets when they are provided with an environment where they feel safe and that satisfies their behavioral needs. Proper care both in the shelter and in the home is critically important for their overall well-being.



Rabbits like to push, toss and punch things around their environment.

"Knowing the behavioral needs of bunnies will also improve adoption counseling in hopes that the next home will be a forever home."



Providing rabbits with chew toys is very important.

Husbandry-Related Disorders of Rabbits: Ms. Jennifer Bailey, visiting Extern

Rabbits have husbandry requirements that are unique to their species. Lack of attention to these special needs can lead to disorders that may significantly impact a rabbit's health. Three of the most important husbandry-related disorders are ulcerative pododermatitis, gastric trichobezoars, and dental malocclusion.

Ulcerative pododermatitis is commonly known as sore hocks. The lesions begin as areas of fur loss on the soles of the rear feet. Left untreated, these lesions progress to red, irritated skin that may develop into open sores.

Rabbits should not be housed exclusively on wire floors, as they are more likely to develop ulcerative pododermatitis. A solid non-slip mat covering plastic-slatted or wire mesh floors will provide a resting area for the rabbit's feet. Slatted or mesh floors should not have openings larger than 1 x 2.5 inches to avoid foot entrapment injuries. Whether solid or slatted, cage floors should be cleaned and waste products removed daily.

A *gastric trichobezoar* is a hairball that is trapped in the gastrointestinal tract. Rabbits naturally groom themselves and ingest fur. Ingested fur usually moves through the gastrointestinal tract without incident. However, a low-fiber diet or increased fur ingestion may lead to a gastric trichobezoar.

Rabbits may increase their ingestion of fur through an increase in self-grooming. They may also practice barbering – the ab-

normal chewing of their cagemates' fur. Both of these conditions may be related to stress.

The risk of developing gastric trichobezoars can be reduced by decreasing environmental stress and providing adequate fiber in the diet. See the article on rabbit nutrition in this issue for more information on ensuring adequate dietary fiber.

Dental malocclusion refers to abnormal contact of the chewing surfaces of the maxillary (upper jaw) and mandibular (lower jaw) teeth. The teeth of rabbits naturally grow throughout the rabbit's life. Abnormal tooth wear can lead to overgrown teeth and dental malocclusion.

Rabbits with dental malocclusion may appear to be eating their ration. But closer examination may reveal that more food is falling from their mouth rather than being properly chewed and swallowed. These rabbits may lose weight because they are not eating enough. They may also have an unkempt hair coat due to the pain associated with grooming.

Dental malocclusion can affect the incisors and cheek teeth. Rabbits with dental malocclusions should be evaluated by a veterinarian experienced in addressing rabbit dental disorders.

Addressing these special husbandry requirements will contribute positively to the health of rabbits housed in your shelter.

Events Calendar

November 2011						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
University of Wisconsin Extern →						
13	14	15	16	17	18	19
SAWA / PetPoint Seminar →						
20	21	22	23	24	25	26
				University Closed →		
27	28	29	30			



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