

The Buzz on Bunnies

By Laura Lathan, DVM

Atrium Animal Hospital, 6520 McMahon Drive, Charlotte, NC 28226
704-542-2000

Here's what Mother Nature designed:

Our pet rabbits are descended from wild European rabbits. In the wild, they live in colonies. They dig out large underground warrens to live in. They mark their territories with urine and droppings. They eat foods that are very abrasive and nutrient-poor, especially in winter. They are active at dawn and dusk, and spend most of the day and night underground. They have lots of babies and short lifespans.

So, that means that your pet rabbit is programmed to:

- be social
- love to dig
- leave urine and droppings everywhere
- chew and eat a lot
- mostly lounge around, with short periods of activity
- reproduce, then die young

Today we'll talk about how to work with (and work around) this programming!

Caring for your rabbit - basic husbandry

Enclosure: Home base for your bunny. Requirements include:

1. A large cage or pen: big enough for your bunny to take 4 hops **MINIMUM**, unless your rabbit has free range. Tall enough for your rabbit to stand up on its hind legs. Well ventilated.
2. Solid, dry flooring - try carpet, thick cardboard, or other disposable products. An entire floor of wire mesh is **NOT** acceptable. Avoid cedar and pine shavings.
3. Padding: sheepskin rug, thick towels, or straw for comfort and healthy feet.
4. A litterbox area: Avoid clumping litter, dusty clay litter, or wood shavings. Newspaper based litter (Care Fresh, Ecofresh, Cell-sorb) with some hay thrown on top makes the best substrate.
5. Water source: untippable bowl or bottle. Change daily.
6. Hiding place/shelter, especially if your rabbit is high-strung or lives outdoors.
7. Moderate temperature range - rabbits tolerate cold better than heat. Provide a frozen cold source and a fan if the temp rises above 85 degrees.
8. Large doors - preferably both top and side.

Food: Variety is the spice of life and the key to health!

1. Hay, hay, hay! Vital to your bun's long term health - give in unlimited amounts. It should be green and smell sweet. Alfalfa is okay for young rabbits but too rich for older ones. Timothy is good for adult bunnies and is easy to find in the Charlotte area. Other options include orchard grass, oat hay, and bermuda grass.
2. Fresh veggies: Give a minimum of 1 cup packed greens per 4 lbs of bunny per day. Favorites include parsley, cilantro, dandelion greens, watercress, basil and endive. You can add grass or other veggies such as carrots and carrot tops, peppers, broccoli, pea pods, etc. These help provide micronutrients and mental stimulation. Avoid beans, corn, rhubarb and any scraps that you would not eat.
3. Pellets: Limit these to 1/4 cup per 5 lbs bunny per day. They are optional, and should have a MINIMUM of 20% fiber. For rabbits older than 6 months, feed a timothy based pellet. Don't use pellets with nuts or seeds mixed in. Make sure they are fresh. If you'll be storing them for a while, freeze them.
4. Treats: Small amounts of fruits (apples, pears, bananas, raisins) make tasty desserts. Avoid treats with refined sugars or starches, and high fat content (nuts and seeds), even if the label says "Rabbit Treats!"

Exercise: Good for health and happiness

1. Outside exercise is wonderful with a halter/leash. You can also build a mobile "grazing ark" to move around your lawn. Make sure the grass hasn't been treated with weedkillers or pesticides, and make sure there are no wild bunny droppings in the area.
2. Indoor exercise: as much as possible! Halls are especially fun for rabbits. Remember that dawn and dusk are the best times to provide exercise.

Training your new bunny & establishing good habits

Bunny-proofing your house

1. Be prepared to make a few compromises - Mother Nature gave your rabbit instincts, and you will need to provide an acceptable alternative or diversion to satisfy those instincts. You can't erase them! (See handout: More Than a Chew Stick)
2. See litter box training below.
3. Cords and wires: Move beyond your rabbit's reach (under carpet and furniture) or cover. Coverings include plastic tubing (slit lengthwise and push wires inside), spiral cable wrap, or adhesive wire concealers. Remember that bunny may be able to reach the wires even if they are out of sight behind the couch! Get down on the floor to bunny level and do some detective work.
4. Potted plants should be out of bunny's reach. Many are poisonous, especially dumbcane and oleander.

5. Carpets: Rabbits love to dig and chew carpet! Digging occurs most commonly in areas that resemble tunnels - you may need to rearrange your furniture or cover favorite areas with an acceptable digging alternative, such as a sea grass mat, carpet remnant, or enclosed digging box filled with hay, litter, etc. Provide acceptable chewing alternatives.
6. Baseboards: Cover with furniture or untreated wood. Provide chewing alternatives.
7. Furniture and beds: Cover the underside with flattened cardboard boxes. Treat the wood with bitter apple spray to make it less palatable.

Toys: Tools for your sanity and bunny's enjoyment

1. Chewing toys: Straw offered in creative ways (boxed, tube, knotted, etc.). Untreated wicker or willow baskets. "Busy Bunny Baskets." Wooden toys safe for birds. Untreated scrap wood. Small tree branches (You can give fresh apple branches; most others should be dried for at least 1 month to remove the toxins), dried pine cones, straw brooms.
2. Noisy toys: Wire balls, mason-jar lids, keys, plastic slinkies, rattles and other unbreakable baby toys.
3. Container toys: Cardboard boxes, paper bags, empty oatmeal canisters, foil and cling wrap rolls, willow baskets.
4. Digging toys: Sea grass mats, boxes filled with straw and litter, towels, carpet remnants, phone books, baskets filled with junk mail and magazines, cardboard concrete forms. Try hiding fresh veggie treats inside piles of straw for bun to dig out.
5. Climbing toys: Jungle gyms, cat lodges, ramps and elevated lookouts. There are many modular cardboard playgrounds available, such as Cottontail Cottage, Maze Haven, and Hopper Hideaway.

Litter box training

1. If your rabbit is old enough, make sure it is spayed or neutered. This will greatly facilitate house training! Hormonal adolescent bunnies often forget their training.
2. The litterbox should be easy to hop in and out of, and about 9"x 12". Fill with an organic litter made from paper or citrus peel. Avoid clay litter and wood shavings. For extra appeal, add a layer of hay on top.
3. Start in the cage - let your bunny decide on a favorite place to urinate/defecate and then place the litterbox in that corner. Add some old droppings to give bunny the idea.
4. Once your rabbit is using the box consistently, block off a small play area around the cage and leave the door to the cage open while you monitor your rabbit. Let bunny have free access in and out of the cage and he/she will probably return to it to urinate and defecate. If you catch your bun urinating or pooping outside the box, a sharp loud "NO!" is usually all that is necessary to stop it. Then herd the bun over to the nearest litterbox.

5. Gradually increase the size of the play area - you may need to add a second litterbox if the area gets too large. Too many litter boxes is better than too few! Once bunny establishes habits, you can remove the seldom-used boxes.
6. A few “bunny berries” scattered here and there is your rabbit’s way of marking territory. Make him king of his own territory (his cage) and he will probably stop marking yours. To do this, you must avoid reaching in the cage while he is in it, even to get him in and out.

When bun does bad things- behavioral modification

1. Spanking, hitting, swatting, chasing bunny are BAD IDEAS.
2. A firm sudden “NO!”, foot stomp, or hand clap is often all that is necessary. The goal is to startle bunny, not frighten her.
3. A well-aimed squirt with a water gun or compressed air can work wonders.
4. Remember that prevention is the best discipline. It is up to you to keep bun out of trouble by offering diversions or blocking access.
5. Let your rabbit know that you feel pain, too. When you are nipped, a loud, sudden screech should get the point across.
6. Gently pushing your rabbit’s head toward the floor tells him you’re the bunny in charge.
7. An aggressive bunny’s “mean” overtures should be met with enthusiastic praise and love. (You may need to wear protective clothing during the initial phase.) He will eventually come bounding toward you out of affection instead of aggression.

Proper bunny handling and transport

1. Always, always, always support the hind end.
2. Consider using a litterbox for transport.
3. Remember that being picked up and carried is scary for most bunnies. Practice it in short, non-threatening training sessions and reinforce with lots of praise.
4. For added security, use a towel.
5. To prevent dangerous struggling in the cage, let your bunny go in and out on her own. Pick her up once she is out.
6. Pet your rabbit from the top instead of coming from the front. This is less startling.
7. Technique: one hand under bunny's chest, with front legs secured; other hand supporting bunny's tail area (NOT the hind legs, but between them).

Bunny health maintenance

The #1 Rule of Sick Rabbit Care: Keep your rabbit eating and drinking!

1. Offer flavored water in addition to regular water: mix in juice, or brew some unsweetened peppermint or chamomile tea and offer it when cool.

2. Offer fresh, wet organic herbs to stimulate the appetite. Parsley, cilantro, basil, mint, etc. are good choices.
3. Vegetable baby food, ground up pellets soaked in water, and Oxbow's Critical Care are alternatives for feeding sick rabbits.
4. If your rabbit won't eat on his own for more than 12 hours, you will need to syringe-feed him. Try to get at least 1 teaspoon of food into him every 4 hours.
5. Give a tummy massage after feeding to help the food move through the GI tract.
6. See your vet ASAP!

Poop Patrol: Digestive Maintenance

1. As unappetizing as it may sound, rabbits need to eat a portion of their poop (called cecotropes) daily. These feces are soft, shaped like a tiny cluster of grapes and enclosed in a greenish mucus. They are usually produced at night, but rabbit owners will occasionally see the remnants of them during the day. Cecotropes are a wonderful source of vitamins and protein, and are not a cause for concern.
2. A large percentage of rabbit health problems are preceded or accompanied by changes in the daytime "bunny berries" you have grown so fond of cleaning up. Pay attention to the size and relative amount of these feces. Are they scant and small? Are they full of hair? Are there excessive cecotropes present? Is diarrhea present?
3. GI slowdown (sometimes called stasis) is a common problem in rabbits who are not getting enough long fiber (hay) or enough exercise. It causes decreased appetite, scant feces, and lethargy. Prevent it with proper diet and exercise and regular brushing. Severe cases require aggressive medical treatment.
4. Excessive uneaten cecotropes may signal a diet that is too high in protein. If the diet is correct, there may be an underlying problem. See your vet.
5. Diarrhea (unformed, watery poop) is a bad sign. Your bun can become dehydrated quickly - see your vet ASAP to get fluid therapy and diagnostics!

Nail Trimming

1. Should be done every month.
2. Is easily accomplished with cat nail trimmers.
3. Clip the front feet nails first. Rabbits are more sensitive with their hind feet.
4. You may need a flashlight to "backlight" the nail and detect the blood supply, or quick, of the nail. Don't cut that far!
5. If you do "quick" your bun, you can use direct pressure and a bit of flour or talc to stop the bleeding.

Smile Maintenance

1. Check your bunny's front teeth monthly for signs of malocclusion, or misalignment. Since rabbit's teeth grow continuously, they need to be worn down continuously. If they are misaligned, they will not be worn down, and they will grow quite long. This means your bun won't be able to eat! Your vet can shorten them with a dental burr or cutting disc.

2. Check your bun's jaw line for lumps, bumps or a wet chin on a monthly basis as well. These can signal malocclusion of the back molar teeth or tooth abscesses. See your vet.

Coat Maintenance

1. Brush bunny often with a slicker brush to control excess shed hair. You will need to brush more often during the four yearly shedding periods.
2. Watch for the small flecks of black material called "flea dirt," or for live fleas. Options for flea control are more limited in rabbits than in cats and dogs; consult your vet before using any flea product. Never use Frontline (fipronil) on a rabbit.
3. Watch for dandruff - it could be mites instead of flaky skin! Comb it out with a flea comb - if it persists, see your vet.
4. Fur loss could be due to a normal shed, ringworm, mange, fleas, pseudo-pregnancy, or many other causes. If it persists, and there is no obvious cause, your vet may need to take a fur or skin sample for tests.

Skin Lumps and Sores

1. Rabbits are very prone to abscesses under the skin. Check your bun weekly for unusual lumps and bumps. If you notice any cuts or scratches, clean them daily with hydrogen peroxide. During the summer, outdoor bunnies are susceptible to bots (fly larvae under the skin) and maggots.
2. Check the bottoms of feet weekly. Sore hocks are a common problem caused by cages with wire bottoms or wet flooring.
3. Check your bun's bottom weekly. Fecal or urine scald results when the rabbit is unable to lift up and away during urination/defecation.

Ear, Eye and Nose maintenance

1. Check ears weekly for cleanliness. If you notice debris, you can clean the ear with a cotton ball and ear cleaner (see your pet store or your vet - propylene glycol based preparations are best). If the debris persists, it could be an ear mite, bacteria, or yeast infection. See your vet.
2. Lop-eared rabbits may require more frequent ear cleanings than up-eared rabbits.
3. Runny eyes can be caused by a variety of problems, from dusty litter/hay to dental disease and infections. If your bun's eyes are reddened, swollen, or if there is discharge, see your vet.
4. A runny or crusty nose is another common sign of a problem - the common name of this condition is "Snuffles". It is usually caused by a bacterial infection and requires antibiotics. Make sure your bun's nose is clean before you transport her to the vet - otherwise she may not be able to get enough air during the stressful experience.

Urinary tract health

1. Rabbits pee in technicolor. White, yellow, orange, and red can all be normal urine colors.

2. If your bunny's urine suddenly turns red, and there has been no change in her diet, this could signal a urinary infection, or urinary stones, or cancer. You will need to have the urine analyzed. See your vet.
3. If your bunny spends a lot of time in the litter box standing in a urinating posture, or if he suddenly forgets his litter box training, there could be a urinary problem.

Reproductive Tract Health

1. Malignant uterine cancer is extremely common in older female rabbits, and is completely avoidable. Have your rabbit spayed, preferably at 5-6 months of age!
2. Often the only sign is blood in the urine, especially at the end of the stream. A vaginal discharge may also be present.
3. If the cancer has not spread by the time it is detected, spaying your rabbit may be curative.

Nervous System Problems

1. Head tilt is a common and frustrating problem in rabbits. It can be caused by ear infection, parasite infection, or systemic bacterial infection.
2. Paralysis is also relatively common, and can be caused by a multitude of problems. Broken backs, parasite infections, tumors, toxins, and viruses are all potential sources of this problem. Since the prognosis varies greatly depending on the cause, it's important to have a thorough veterinary workup.

Updated April 14, 2012

References and Resources

House Rabbit Handbook: How to Live with an Urban Rabbit

Fourth Edition, by Marinell Harriman, copyright 2005, publisher: Drollery Press

Rabbit Health in the 21st Century: A Guide for Bunny Parents

Second Edition, by Kathryn Smith, medical review by Noella Allan, DVM
copyright 2003, Publisher: iUniverse, Inc.

Why Does My Rabbit...?

by Anne McBride, revised edition, Publisher: Souvenir Press

When Your Rabbit Needs Special Care: Traditional and Alternative Healing Methods

by Lucille C. Moore and Kathy Smith, Publisher: Santa Monica Press

House Rabbit Society

International Headquarters

148 Broadway
Richmond, CA 94804
Tel:(510) 970-7575
Fax:(510) 970-9820
www.rabbit.org

Binky Bunny

2601 C Blanding Ave, #282
Alameda, CA 94501
Tel: (415) 992-6430
www.binkybunny.com

Bunny Bytes

PO Box 1581
Kent, WA 98035
Tel:(888) 563-9300
Fax:(888) 563-9300
www.bunnybytes.com

American Rabbit Breeders Association, Inc.

P.O. Box 426
Bloomington, IL 61702
Tel:(309) 664-7500
Fax:(309) 664-0941
www.arba.net