

# Rabbit Care Adoption Packet

Courtesy of  
**New Mexico House Rabbit Society**  
505/435-9916  
[www.newmexicohrs.org](http://www.newmexicohrs.org)  
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# New Bunny Shopping List

## House Supplies:

- cage: at least 6x the size of your stretched out bunny, preferably with 2 levels and a ramp \*
- water bottle or crock
- food crock - heavy enough so your bunny can't throw it!
- hay rack
- plastic litter box
- edible litter, such as Carefresh or Cat Country (no cedar!) \*
- pet carrier
- blankets/sheepskin rugs to protect feet from wire floors
- bunny toys \*
- cardboard box or tube to hide in and run through
- collapsible fence for exercise area

## Cleaning Supplies:

- spray bottle
- white vinegar
- clean sponge
- bucket
- rubber gloves
- old towel
- broom and dustpan
- vacuum

## Food:

- unlimited grass hay: (high-quality timothy hay recommended) \*
- timothy or alfalfa pellets (see the Dietary Recommendations on page for details.)\*
- fresh vegetables-at least 3 kinds each day \*



## Health Care Supplies:

- *House Rabbit Handbook*  
by Marinell Harriman
- *Rabbit Health in the 21<sup>st</sup> Century*  
by Kathy Smith
- comb
- nail clippers/styptic powder
- Petromalt
- papaya enzyme digestive aid

## Medical Kit:

- disinfectant: chlorhexidine or hydrogen peroxide (diluted)
- antibiotic: Neosporin or triple antibiotic (NOT Neosporin Plus)
- calendula lotion to sooth minor wounds
- Vaseline or corn starch for urine scald
- simethicone: gas relief medicine for babies
- Pedialyte to rehydrate
- saline eye wash
- sterile bandages
- cotton swabs/Q tips to clean anal glands
- cotton balls
- eye dropper or syringe for oral meds
- tweezers and scissors
- rectal thermometer/KY lubricant
- rubbing alcohol to clean thermometer

## House Protection:

- a) electrical cords:
  - pvc tubing/hacksaw
  - aquarium tubing/exacta knife
  - electrical cord wrap from Radio Shack
- b) off limit rooms, bookshelves, baseboards, furniture:
  - baby gates
  - chicken wire
  - fabric covers

## About Your New House Rabbit

The rabbit you are adopting was abandoned, and ended up in the local animal shelter. From there, he went to one of our foster homes. He has been learning to use a litterbox, to accept being handled by people, and to display affection towards people.

However, your rabbit has had to share space and affection with many other rabbits. Understanding this will help you during the first few weeks with your rabbit. As your rabbit realizes his new status in life—that he is the center of attention, and no longer needs to share—he may express exuberance, and sometimes, aggression. The poor homeless rabbit who meekly lay in your lap may now struggle to be put down, or even nip. He may demand treats and petting, may hide under the bed when it's time to go back to his cage—and may show temper when confined. Some rabbits in a new environment temporarily become un-housetrained.

A rabbit who has any trouble adjusting to a new environment should be treated as consistently as possible. Be flexible about your rabbit's preferences, but don't be afraid to establish a routine. Imposing a routine on your rabbit will not alienate him—on the contrary, it will help him feel comfortable. If occasionally being handled and confined are going to be part of his life, gently persist with your requirements.

Don't interpret territorial acts (thumping, grunting, lunging, nipping) as hostility. Realize that your rabbit's horizons (and ego) have suddenly expanded. In his delight in being King (or Queen) of your home, he may test his relationship to you. Never punish or challenge an aggressive rabbit; respect his space; but if necessary, confine him for a period of time each day. Affection combined with a predictable routine will help settle him down. When will the mellow side of your house rabbit re-appear? The average transition period reported to us is a few weeks in length.

# Rabbit-Proofing Your House

Rabbit Proofing one's home involves three things:

- 1) Preventing destruction of your property;
- 2) Protecting your companion rabbit(s) from harm; and.
- 3) Providing safe and fun chewing alternatives for your rabbit.

Preventing rabbits from chewing on electrical cords is of utmost importance, since rabbits can be badly burned or electrocuted. The consequences of biting into an electric wire are too severe to risk relying on training alone. Instead, you must take action to move the cords safely out of reach. Some ways of doing this follow.

- ⇒ Plastic tubing (similar to that used in fish tanks, or with "swamp coolers") from a hardware or aquarium store can be slit lengthwise with a blade and the wire can be tucked safely inside. A harder, black, pre-slit type of tubing is also available.
- ⇒ Decorative gold and wood-grained wire-concealers that stick to the base of walls come in strips, corners, etc., so they can follow the shape of the wall. This is a more costly and time consuming method than the clear plastic tubing above, but is more permanent, and rabbit proof, as well.
- ⇒ Of course, wires can be run under or behind furniture or carpets in order to hide them.

Most houseplants are toxic. Putting them on high furniture may not keep a rabbit away. Hang them from the ceiling if you have an active bunny, but watch for falling leaves! If you are unsure which plants may be toxic, [www.rabbit.org](http://www.rabbit.org) has a complete list of poisonous plants (indoors and outdoors).

If a rabbit insists on chewing baseboards, edges of chairs, etc., a board can be put over the places of temptation, making them inaccessible while also providing an acceptable chewing surface. This method should be combined with training your rabbit not to chew on these items.

Rabbits can't resist digging at the end of "tunnels" (any place that furniture forms a narrow path to a wall). Lay a piece of wood or hard plastic at the end of the tunnel, holding it down with the furniture on either side to protect the carpet. You can also place a tub full of hay, shredded newspaper, or a phone book, here as well for bunny to dig in.

Upholstered furniture and beds that are several inches off the ground are wonderful places for rabbits to hide underneath. However, some will burrow up into the soft underside and make a nest. A flat cardboard box or frame of 2x4s, smaller than the area of the future base, will keep the rabbit out, and won't be seen from human level.

Rabbits chew to exercise their minds, not just their teeth. Provide lots of entertaining alternatives for your bun to chew on. If she enjoys chewing a hole into the back of the couch, give her a closed cardboard box filled with paper or straw, with a small hole in it to start, and let her finish the job. Be imaginative!

## CHEWING BEHAVIOR

Why does your rabbit chew things other than her meals? Chewing is a normal, natural, necessary — and highly enjoyable — activity for rabbits. Here is an outline of some considerations to help you understand the why of chewing, as well as the how of preventing destruction of your favorite wicker furniture.

### I. Psychological factors

A. Sex. Females often have a stronger urge to burrow than males, although this is not the only reason rabbits chew. The hormone/age factors below also apply to males. Both males and females can and should be spayed or neutered as soon as they are sexually mature (3 1/2 to 6 mos. old).

B. Hormone/age. Is she spayed?

If young (under 2 yrs.) & unspayed, spay her.

If young & spayed, her chewing will lessen with time.

If mature (over 2 yrs.) & unspayed, spay her but get a checkup first.

If mature & spayed, her behavior isn't governed by hormones.

C. Personality. Chewers are often intelligent, outgoing, affectionate individuals who like to be in charge and get lots of attention. Does she chew to get attention? Would a companion alleviate boredom? Anything that would entertain her/make her happier might lessen her chewing.

### II. Environmental factors

A. Diversions: keep trying to find something harmless she enjoys doing. What kind of “burrow” (such as a cardboard box stuffed with hay), can you provide for her?

B. Protecting the environment: Besides the more traditional wire protection devices (plastic tubing), a box or wire basket can go over a group of wires. Browse a large hardware store for products to use for bunnyproofing.

C. Confinement (to a cage or room). This simply buys you time, while you bunny-proof, get her spayed, or wait for her to mature.

Discipline (clapping hands, saying “no”) has a small role in stopping chewing behavior. Most people report that it's easy to make their bunnies understand them, but difficult to make them stop the behavior through the use of discipline only, especially if the bunnies are left alone for periods of time.

Since swallowing indigestible such as carpet presents a health hazard to your bunny, follow up excessive chewing incidents with a petroleum laxative such as Petromalt or Laxatone (sold at pet-supply stores).

Remember: A spayed rabbit will chew less and less as she matures. It may be just a matter of riding out a high energy stage of your bunny's life.

# Suggested Toys for Rabbits

*Toys provide:*

1. Mental stimulation. Without challenging activities to occupy your rabbit when you're not home, your rabbit, especially a solitary rabbit, will get bored. This could lead to depression and/or excessive destruction. The creative use of toys can extend your rabbit's life by keeping him interested in his surroundings, by giving him the freedom to interact with those surroundings, and by allowing him to constantly learn and grow.
2. Physical exercise. Your rabbit needs safe activities to keep her body in shape as well as her mind. She needs things to climb on, crawl under, hop on and around, dig into, and chew on. Without outlets for these physical needs, your rabbit may become fat or depressed, or may create jumping, chewing, or crawling diversions with your furniture.
3. Bunny proofing for your home. As is clear from the above descriptions, toys are not just for your rabbit, they also keep your house safe. By providing your rabbit with a selection of toys chosen to meet her age, sex, reproductive status and temperament, you have fulfilled most of the requirements of bunnyproofing your home.

Some good toys to start with:

- Paper Bags and Cardboard boxes for crawling inside, scratching, and chewing
- Cardboard concrete forms for burrowing
- Cardboard roll from paper towels or toilet paper
- Untreated wicker baskets or boxes full of: shredded paper, junk mail, magazines, straw, or other organic materials for digging
- Yellow Pages for shredding
- Cat toys: Batta balls, and other cat toys that roll or can be tossed
- Parrot toys that can be tossed, or hung from the top of the cage and chewed or hit
- Baby toys: hard plastic (*not* teething) toys like rattles and keys, things that can be tossed
- Children's or birds' mobiles for hitting
- "Bunny Bungalow" (cardboard box with ramps and windows) to climb in and chew on. Also, kitty condos, tubes, tunnels, and trees
- Nudge and roll toys like large rubber balls, empty Quaker Oat boxes and small tins
- "Busy Bunny" toys
- Rainbow slinkies
- Toys with ramps and lookouts for climbing and viewing the world
- Dried out pine cones
- Jungle gym type toys from Toys R Us
- A (straw) whisk broom
- A hand towel for bunching and scooting
- Untreated wood, twigs and logs that have been aged for at least 3 months (apple tree branches can be eaten fresh off the tree. Stay away from: cherry, peach, apricot, plum and redwood, which are all poisonous.
- Untreated sea grass or maize mats from Pier One or Cost Plus Imports

# Dietary Recommendations

## In General:

A rabbit's diet should be made up of fresh hay (grass, timothy or oat), water, good quality pellets, and fresh vegetables. Anything beyond that is a "treat" and should be given in limited quantities.

Pellets should be fresh, and should be relatively high in fiber (18% minimum fiber). Do not purchase more than 6 weeks worth of feed at a time, as it will become spoiled. Pellets should make up less of a rabbit's diet as he or she grows older, and hay should be available 24 hours a day. House Rabbit Society does not recommend a pellet-free diet.

When shopping for vegetables, look for a selection of different veggies--look for both dark leafy veggies and root vegetables, and try to get different colors. Stay away from beans and rhubarb.

Hay is essential to a rabbit's good health, providing roughage which reduces the danger of hairballs and other blockages. Hay should make up about 80% of any rabbit's diet, regardless of age. Apple tree twigs also provide good roughage.

## Babies and "teenagers"

- Birth to 3 weeks--mother's milk
- 3 to 4 weeks--mother's milk, nibbles of hay and pellets
- 4 to 7 weeks--mother's milk, access to hay and pellets
- 7 weeks to 7 months--unlimited pellets, unlimited hay (plus see 12 weeks below)
- 12 weeks--introduce vegetables (one at a time, quantities under 1/2 oz.)

## Young adults: 7 months to 1 year

- introduce grass and oat hays, decrease alfalfa if using
- decrease pellets to 1/2-3/4 cup per 6 lbs. body weight
- increase daily vegetables gradually
- fruit daily ration no more than 1 oz. to 2 oz. per 6 lbs. body weight (because of calories)

## Mature adults: 1 to 5 years

- Unlimited grass hay, oat hay, timothy
- 1/8-1/4 cup daily per adult rabbit per 6lbs body weight. Overweight bunnies may need less. Check with your vet.
- Minimum 2 cups chopped vegetables per 6 lbs. body weight
- fruit daily ration no more than 2 oz. (2 TBL) per 6 lbs. body weight

## Senior rabbits: Over 6 years

- If sufficient weight is maintained, continue adult diet
- Frail, older rabbits may need unrestricted pellets to keep weight up. However, some older bunnies will need less. Check with your vet. Alfalfa can be given to underweight rabbits, only if calcium levels are normal. Annual blood workups are highly recommended for geriatric rabbits.

Note: When you feed a lower quantity of pellets, you must replace the nutritional value without the calories, which is done by increasing the vegetables. Also, a variety of hay must be encouraged all day long; we do this by offering fresh hay a couple of times a day.

berries

## Rabbit Veggie and Fruit List

### LEAFY GREENS

These foods should make up about 75% of the fresh portion of your rabbit's diet (about 1 packed cup per 2 lbs of body weight per day).

*Leafy Greens I* (need to be rotated due to oxalic acid content and only 1 out of three varieties of greens a day should be from this list)

- Parsley
- Spinach
- Mustard greens
- Beet greens
- Swiss chard
- Radish tops
- Sprouts (from 1 to 6 days after sprouting, sprouts have higher levels of alkaloids)

*Leafy Greens II* (low in oxalic acid)

- Arugula
- Carrot tops
- Cucumber leaves
- Endive
- Ecarole
- Frisee Lettuce
- Kale (all types)
- Mache
- Red or green lettuce
- Romaine lettuce
- Spring greens
- Turnip greens
- Dandelion greens
- Mint (any variety)
- Basil (any variety)

- Watercress
- Wheatgrass
- Chicory
- Raspberry leaves
- Cilantro
- Radicchio
- Bok Choy
- Fennel (the leafy tops as well as the base)
- Borage leaves
- Dill leaves
- Yu choy

### **NON-LEAFY VEGETABLES**

These should be no more than about 15 % of the diet (About 1 tablespoon per 2 lbs of body weight per day).

- Carrots
- Broccoli (leaves and stems)
- Edible flowers (roses, nasturtiums, pansies, hibiscus)
- Celery
- Bell peppers (any color)
- Chinese pea pods (the flat kind without large peas)
- Brussel sprouts
- Cabbage (any type)
- Broccolini
- Summer squash
- Zucchini squash

### **FRUITS**

These should be no more than 10% of the diet (about 1 teaspoon per 2 lbs of body weight per day).

NOTE: unless otherwise stated it is more nutritious to leave the skin on the fruit (particularly if organic), just wash thoroughly. IF you are in doubt about the source of the fruit and you are concerned about chemicals in the skin, then remove it.

- Apple (any variety, without stem and seeds)

- Cherries (any variety, without the pits)
- Pear
- Peach
- Plum (without the pits)
- Kiwi
- Papaya
- Mango
- Berries (any type)
- Berries (uncooked)
- Pineapple (remove skin)
- Banana (remove peel; no more than about 2 1/8 inch slices a day for a 5 lb rabbit...they LOVE this!)
- Melons (any – can include peel and seeds)
- Star Fruit
- Apricot
- Currants
- Nectarine

Absolutely NO chocolate, cookies, crackers, breakfast cereals, bread, pasta, yogurt drops, or other "human treats." There is research to suggest these items may contribute to fatal cases of enterotoxemia, a toxic overgrowth of "bad" bacteria in the intestinal tract.

# Environment and Housing

(by Susan A., Brown, DVM, Midwest Bird and Exotic Animal Hospital)

## Cage

**House rabbits should never be kept completely confined to a cage.** Exercise is vital for the health of the rabbit. All too often we hear well meaning, but poorly informed, people describe rabbits as easy to keep because “they can be caged and don’t take up much space! This idea has led to many rabbits being caged most of their lives with the distinct possibility of developing both physical and behavioral disorders. They are designed to run and jump and move about a large area. To confine a rabbit to a cage exclusively to a cage can cause several problems:

- † **Obesity** – caused most often by a diet too high in calories coupled with a lack of exercise
- † **Pododermatitis** – Inflammation of the feet caused by sitting in a damp or dirty environment
- † **Poor bone density** - Rabbits that are continually confined to a small cage can exhibit marked thinning of the bones which may lead to more easily broken bones when handling
- † **Poor muscle tone** - If the rabbit can’t exercise, the muscles, including the heart, will be underdeveloped and weak
- † **Gastrointestinal and urinary function** - A rabbit that sits all day in the cage with little exercise can develop abnormal elimination habits
- † **Behavioral problems** - Continually caged rabbits can exhibit a wide range of abnormal behaviors including lethargy, aggression, continual chewing of the cage bars, chewing fur (obsessive grooming), and destruction of the entire contents of the cage.

A cage can be used as a “home base” for part of the day or it can be open all the time within an exercise area. The cage should allow the rabbit to stand up on its hind legs without hitting the top of the cage, provide a resting area and space for a litter box. It should be easy to clean and indestructible, therefore metal is probably the best choice. The floor can be solid or wire. Keep the cage in a well-ventilated, cool area. Basements are often too damp, which can promote respiratory disease. If you must house your pet in a basement, use a dehumidifier and a fan to improve the air quality. The optimum temperature range for a rabbit is 60-70 degrees F. When the temperature rises into the mid 70's, you may see drooling, and a clear nasal discharge. If temperatures reach the upper 80's and beyond, especially if the humidity level is high, there exists a potential for a fatal heat stroke. On hot days, when air conditioning is not available, leave a plastic milk jug filled with frozen water in the cage, for use as a portable "air conditioner."

## Exercise Area

As mentioned, it is vital to the health of your pet to provide an exercise area where your pet can roam for a few hours every day. The easiest way to accomplish this is to use exercise pens for dogs. These can be found at most pet stores. Buy fencing that is at least three feet high for small and medium rabbits and four feet high for giant breeds. These panels are easily put together with metal pins and can be configured to any size or shape needed. The pen keeps your bunny away from furniture, electrical cords and toxic materials. The pen can also be used outside as a moveable enclosure to allow your pet access to grassy areas.

**Never leave a rabbit outside in a pen unsupervised,** because dogs, cats and raccoons may be able to knock down the fencing or climb over it and harm your pet. If you need to protect the floor under the pen you can use a sheet of no-wax flooring which is available at most hardware stores. It can be easily cleaned and rolled up when not in use.

If you are going to allow your pet free access to your house you need to “bunny-proof” it. Block all escape routes, cover or block access to electrical, phone and computer cords, cover furniture to protect it from the rabbit’s teeth and claws and remove access to toxic plants, rodenticides, insecticides and other toxic materials.

**Litter Box** (see also Litter Box & Litter Box Training Section in this pamphlet)

Rabbits can be litter box trained relatively easily. When beginning training, confine your pet in a small area, either in a cage or a blocked off section of the room and place a litter box in the corner (try to pick the corner your pet has already used for its toilet). Make sure the sides of the box are low enough so your pet can get in and out easily. It is helpful to put some of the droppings in the box. Some people have also found it helpful to put some hay in the box to encourage defecation in the box (they usually pass stool while they are eating). In exercise areas, provide one more litter box than the number of rabbits you have and put newspaper or plastic under the litter box to protect your floors from accidents. Never punish your pet while in the litter box. Pelleted litter makes the best bedding and is preferred over wood shavings, corncob and kitty litter. Pelleted litters are non-toxic and digestible if eaten, draw moisture away from the surface keeping it drier, control odor well and can be composted. **Do not use clay or clumping kitty litter.** We have had cases where rabbit ate these products and died from an intestinal impaction. There are a wide variety of pelleted beddings available through pet stores, veterinarians and rabbit clubs.

### **Rest/Hide Area**

The ancestors of our pet rabbits would have spent a good portion of their day in protected burrows underground. Our pet rabbits retain the same need to have a protected area in which they feel safe and secure. Some rabbits are content to sit in a box full of hay, others like a completely enclosed box in which to hide. Try providing untreated wicker or straw baskets, litter pans or other shallow boxes filled with hay, cardboard boxes with an entrance hole and the bottom removed or large cardboard tubes as places to hide. Use your imagination! If the cage has a wire floor, provide a solid area on which the pet can rest. Use material that is washable or disposable and absorbent. Some examples might be fake fleece (not long fur) found in sewing stores or absorbent baby blankets (not terry cloth towels). Do not use carpet squares because they are not absorbent, they are abrasive to the feet and they cannot be thoroughly cleaned.

**Toys** (*See also Toy Section later in this Pamphlet*)

Rabbits get a fair amount of mental exercise from their diet of grass hay and green foods, but additional toys are appreciated. Rabbits like to chew, so give them branches from untreated trees (please dry the wood for at least a month to prevent any adverse reactions to the sap), wooden chew toys designed for birds, or unfinished, unpainted wicker or straw baskets. They like things that make noise such as keys on an unbreakable key holder, empty plastic or metal cans, hard plastic baby toys and jar lids. They like things that both move and can be chewed such as toilet paper or paper towel rolls, empty small cardboard cartons and small piles of shredded paper.

### **Cages in General.**

Rabbits were not designed to live on wire floors! Being on wire floors will cause sores to develop on rabbit's feet. Cages were designed for the convenience of rabbit breeders with lots of rabbits who were looking for an easy way to care for many rabbits in the least amount of time. A house rabbit does not need a wire floor. All cages with wire floors must have a piece of plywood, a ceramic tile, sea grass mat, cotton rug, Plexiglass or carpet square that the rabbit can sit and lay on. If you try carpet and the rabbit chews on it, immediately remove it and replace it with another product. The thing to remember about cages is: the bigger the better! A single rabbit confined to a cage for over 12 hours a day must have a cage at least 3'L x 2'W x 2'H. Better yet consider building a two-story "condo" for your bunny. The rabbit needs room for all of its accompaniments (bowls, bottles, litter box) and to have room to lie out, move around and to be able to sit up to groom itself.

### **Rabbits Outside.**

It's a joy to watch rabbits when they play outside, but.... Do not let your rabbit onto grass that has been sprayed with pesticides or lawn fertilizers. Always supervise your rabbit while she's outside. It takes just a few seconds for the neighbors' or your own dog to jump the fence and attack or frighten the rabbit (literally) to death. Under no circumstances should the rabbit be left outside after dark, even in the middle of cities. Predators are hawks, owls, possums, raccoons, coyotes, dogs and occasionally even a cat will attack a small rabbit. If you have an enclosure that you feel is very secure, a rabbit can still die of fright while a predator attempts unsuccessfully to break into the enclosure.

### **Caged Part of the Time**

An untrained rabbit can and probably should, be kept in a cage while you're not home to supervise. Rabbits are crepuscular, which means that they generally sleep during the day and during the night but are ready to play at dawn and at twilight. So if you're at work during the day, they won't mind so much being in a cage. But they must be let out for at least several hours each day, both to exercise and to have social interaction with you.

### **Confined To a Room or Cage Only While You're Away**

Bored rabbits become naughty rabbits. If you're not around to talk to or pet your rabbit as you prepare dinner, watch TV or just read, your rabbit will become very bored. That's when rabbits generally get into trouble, by digging in the carpet, chewing on forbidden objects or eating your leather couch. A very large hole can appear in the carpet in just a few minutes time. The younger rabbits are generally the ones that get into this type of mischief. So even if your rabbit starts out this way, you might check every few months to see if she can earn more freedom as she ages. Often the bathroom, laundry room, kitchen or bedroom are safe places to confine your rabbit while you're away. These rooms are easy to rabbit proof. If none of these rooms are practical then you'll probably have to consider a cage of some sort.

# Litter-Training Your Bunny

By nature, rabbits choose one or a few places (usually corners) to deposit their urine and most of their pills. Urine-training involves little more than putting a litterbox where the rabbit chooses to go. Pill training requires only that you give them a place they know will not be invaded by others. Here are some suggestions to help you to train your rabbit to use the litterbox.

**Age.** Older rabbits are easier to train than younger rabbits, especially babies. A rabbit's attention span and knack for learning increases as they grow up. If you have a baby, stick with it! And if you are deciding whether to adopt an older rabbit, or littertrain your older rabbit, go for it!

**Spay/Neuter.** When rabbits reach the age of 4-6 months, their hormones become active and they usually begin marking their territory. By spaying or neutering your rabbit, he will be more likely to use his litterbox (as well as be much healthier and happier).

**Types of litter.** House Rabbit Society recommends organic litters, made from alfalfa, oat, citrus or paper. (Some brands to look for: Care Fresh, Yesterday's News, Cat Works, Cat Country, Critter Country) Stay away from litters made from softwoods, like pine or cedar shavings or chips, as these products are thought to cause liver damage in rabbits who use them. Another approach is to place a handful of hay in each box, or to simply use hay as litter. Obviously, you need to change the hay fairly frequently (daily), since your rabbit will be eating it.

**Cleaning and Disposal.** Clean litterboxes often, to encourage your rabbit to use them. Use white vinegar to rinse boxes out--for tough stains, let pans soak. Accidents outside of the cage can be cleaned up with white vinegar or club soda. If the urine has already dried, you can try products like "Nature's Miracle" to remove the stain and odor. To dispose of organic litters, they can be used as mulch, or can be composted. Rabbit pills can be directly applied to plants as fertilizer.

**The cage.** Use a cage large enough to contain a small litterbox (along with bunny's food and water bowls, toys, etc.) and still allow enough room for the rabbit to stretch out. Place the box in the corner of the cage that he goes in. With a litterbox in the cage, when the rabbit is confined to his cage when you're not home, cage time is learning time.

**Pills vs. Urine.** All rabbits will drop pills around their cages to mark it as their own. This is not failure to be litter-trained. It is very important for your rabbit to identify the cage as her property so that when she leaves the cage for the bigger world of your house, she will distinguish the family's area from her own and avoid marking it. To encourage this, make the rabbit the king of his cage. Try not to force him in or out of it--coax him. Do not do things to his cage that he doesn't like, or things to him that he doesn't like while he's in the cage.

**The running space.** Even if your goal is to let your rabbit have full run of the house, you must start small. Start with a cage and a small running space, and when your rabbit is sufficiently well-trained in that space, gradually give her more space. But do so gradually! If

you overwhelm her with too much freedom before she's ready, she will forget where her box is and will lose her good habits.

**The method.** Start with a box in the cage, and one or more boxes in the rabbit's running space. If she urinates in a corner of the cage not containing the box, move the box to that corner until she gets it right. Don't be concerned if your bunny curls up in his litterbox--this is natural. Once she's using the box in the cage, open her door and allow her into her running space. Watch her go in and out on her own. If she heads to a corner where there's no box, or lifts up her tail in the characteristic fashion, cry "no" in a single, sharp burst of sound. Gently herd her back to her cage and her litterbox, or into one of the boxes in her room. Be careful, however. You don't want to make the cage or the litterbox seem like punishment. A handful of hay in the box makes it a more welcoming place. After she first uses the box, praise her and give her favorite treat. Once she uses the box in her room a couple of times, you're well on your way, as her habits will be on their way to forming. As she gets better trained in her first room, you can increase her space. Don't hurry this process. And if the area becomes very big, or includes a second floor, be sure to include more litterboxes, so as not to confuse her. Remember, as she becomes more confident and uses fewer boxes, you can start to remove some of her early, "training" boxes.

**How many litterboxes?** The more, the merrier, especially if your rabbit is a bit of a slow learner, or is especially obstinate about where she wants her box(es) to go. As her habits improve, you can decrease the number of litterboxes.

**Special problems.** Some rabbits love to kick their litter out of the box. You can get a covered litterbox (with a hood) to help solve this problem. You can also try experimenting with different litters. A second problem is that rabbits often back up so far in the litterbox that the urine goes over the edge. Again, a covered litterbox can solve this problem. Another solution would be to get a dishpan or other type of tub with much higher sides. Still another solution would be to get a "urine guard" to place around the back of the cage, to keep the litter from spraying outside of the cage.

**Consistency.** Get your rabbit into a daily routine and try not to vary it. Rabbits are very habitual and once a routine is established, they usually prefer to stick with it.

**Compromise.** If your rabbit continually urinates in a spot where there is no litterbox, put his box where he will use it, even if it means rearranging his cage or moving a table in the living room. It is much easier to oblige him than to try to work against a determined bunny!

## Is Your Rabbit Sick?

Rabbits are at the bottom of the food chain and in the wild the weakest are the first to be preyed upon. Thus, rabbits instinctively hide illnesses and injuries to avoid detection by animals of prey. This may be a good survival tactic in the wild, but for domestic rabbits, hiding their symptoms of illness only misleads their caretakers and prevents prompt medical attention.

If your rabbit usually greets you with leaps and bounds and he is now lying in the back of the cage when you approach, this could be a cause for concern. Couple this behavior change with no droppings in his litterbox and food left untouched and you could have a very sick rabbit.

What is "normal" behavior? Some rabbits jump up to greet you; some don't. Some rabbits are very active, running all over the house; some aren't. In general, rabbits mellow a bit as they age. A three-month-old bunny might seem hyperactive compared to a more sedate five-year-old rabbit. Both activity levels are normal, just different. But this behavior will be consistent and known to you. Any deviation of that behavior could signal illness.

The following information is offered as a layman's guide to some rabbit ailments. Be sure to find a good veterinarian before your bunny gets sick. If you are ever in question about your rabbit's health, call your veterinarian for advice.

**Tooth grinding:** Loud tooth grinding is a sure sign of pain. Note: This tooth grinding is different from the softer "tooth purring" you may hear when you snuggle and kiss Bun's face!

**Body heat:** Rabbits regulate body temperature by their ears. Very cold or hot ears could indicate a fever or a drop in body temperature. This, coupled with other warning signs could warrant a trip to the vet. Regular temperature for your rabbit is between 101 and 103 degrees.

**Runny eyes or nose, labored breathing or chronic sneezing:** These could indicate an upper respiratory infection, a blocked tear duct or other problems. Rabbits can exhibit sneezing, coughing and excess tearing. Not all these signs are related to respiratory disease. More common causes include environmental irritants (perfumes, sprays, cooking fumes, ammonia fumes from accumulated urine in toilet area, fabric softener on bedding, dust), poor air circulation, damp environment, hot environment and dental disease. Please consult your veterinarian if your pet is showing the signs listed above.

**Wet chin or drooling:** Usually a sign of tooth problems, or malocclusion. You may also notice a decrease in appetite and ability to eat hard foods such as whole carrot. See your veterinarian. Left untreated, tooth problems can lead to infection of the jaw bone, which is very difficult to treat. Depending on the severity of the misalignment, your rabbit's teeth may need to be trimmed regularly. In severe cases, teeth can be pulled.

**Loss of balance or a head tilt:** This is most often a sign of an inner ear infection, but could also be an indication of E. cuniculi. This can occur very suddenly. Although treatment can be lengthy, and improvement not noticeable for about 10 days, this can be cured if treatment is begun quickly.

**Excessive itching or scratching, head shaking:** Fleas, ear mites and/or fur mites are the usual culprits. In some ear mite cases, scabs can be seen in the ear canal. Your veterinarian will decide what treatment is needed; typical treatment is Ivermectin. If one rabbit in your house has mites, it is best to have all the rabbits checked, as mites can be transferred easily.

Fleas are common in the summer months. Although they may seem harmless, flea infestations can kill rabbits, dogs and cats by causing a deadly case of anemia. Rabbits can safely be treated with Revolution or Advantage for Rabbits (no flea collars, or flea dips unless prescribed by a good

rabbit vet). Have your carpet steam-cleaned or treated with a commercial borate-compound product to kill the flea eggs and larvae. The borate treatment is usually guaranteed for a year. Be sure the products used are safe for rabbits. Frontline has been known to kill rabbits: do NOT use it!

**Sore hocks:** This is when the fur on the rabbit's hock, or heel, is worn down to the bare skin or, in severe cases, to the bone. Sometimes the rabbit forms calluses and get along just fine. Problems arise when the skin turns into an open wound. You may notice the rabbit favoring a foot as he tries to avoid putting weight on his hocks.

Causes are numerous, including wire cage bottoms with no resting area, a damp resting board, wet bunny beds or dirty litterboxes. Overweight and large-breed rabbits are particularly prone to sore hocks, as are the Rex breeds, since they do not have a lot of padding on their feet.

If there are open wounds on your rabbit's hocks or if the area is swollen, see your veterinarian. To prevent sore hocks, give your rabbit a soft, clean resting area. Also, keep your rabbit's weight within normal range, and examine your rabbit regularly.

**Urinary Disease:** The normal color of rabbit urine can range from yellow to dark orange-red. The color comes from plant pigments in the food or from normal pigments produced in the wall of the bladder. The urine can also be clear or cloudy with a white precipitate. The white precipitate is excess calcium excreted through the urine. Rabbits can develop disease of the bladder or kidneys and may exhibit signs such as blood in the urine, straining to urinate, inappropriate or frequent urination, or the complete inability to urinate. If your rabbit is exhibiting any of these signs, please consult your veterinarian immediately. The best prevention for urinary disease is an adequate water intake, which is accomplished through the feeding of green foods and providing fresh water daily.

**In one end, out the other:** Your rabbit's litterbox contains a wealth of information. A healthy digestive tract will produce large, round fecal pellets. Increasingly smaller, irregularly shaped droppings or droppings strung together with fur (or carpet) may indicate a problem. Proper grooming by you, especially during a molt, and plenty of fresh hay will help produce optimum digestive tract health, along with appealing to the rabbit's urge to chew.

**Lumps and bumps:** Abscesses and tumors can be serious and should be checked by your veterinarian as soon as possible.

**Loss of appetite or lethargy:** Even a rabbit can have a "bad hare day." But if your rabbit refuses his usual fresh food or any of his special treats, and seems particularly lethargic, you should call your rabbit's veterinarian right away. We encourage you to observe your rabbit's behavior, activity level and droppings daily. Each rabbit is different and knowing what is normal behavior for your rabbit could save his life.

The most common reason a rabbit stops eating is in response to pain somewhere in the body. The rule of thumb regarding the seriousness of the loss of appetite is as follows:

- Loss of appetite but otherwise acting normal should be investigated within 48 hours. Some rabbits may go through a slow down and then pick up again in a day. The key here is that the rabbit is still active and alert is still be producing stools.
- Loss of appetite accompanied by obvious lethargy or depression should be considered an emergency and should be investigated immediately. This can be a sign of an intestinal obstruction or toxin ingestion. Another important sign is that no stools are being produced.

Hairballs are often cited as a reason for rabbits to stop eating. The problem is not hair (which is always present in a normal rabbit's stomach due to grooming) but abnormalities in GI tract motility. A short haired rabbit on a healthy diet of grass hay and green foods will not generally have a hairball (but long haired rabbits should be groomed carefully to prevent them).

**Diarrhea:** True diarrhea, where all the stool being passed is purely liquid, is very rare in the rabbit. More commonly we see a situation where the rabbit has both normal and soft pudding-like stools in the toilet area. This is not diarrhea, but a problem with GI motility usually caused by an inappropriate diet. If you should notice true diarrhea in your pet, you should consider it an emergency situation and consult your veterinarian immediately.

**Amputations:** Rabbits can live as amputees. You may have to help them off and on the couch, but if an accident or illness causes you to make a decision to amputate or to consider euthanasia, please also consider that they can get along just fine on (for instance) just 3 legs.

**Surgeries:** Food and water should NOT be removed from a rabbit the evening before surgery! Ignore this direction if given by the front office staff and discuss this with your vet if the instructions come from him/her. Rabbits cannot throw up and possible vomiting is the reason that food is removed from cats & dogs. It is harmful to the rabbit and causes a longer recovery time if food is removed. The rabbit should also be tempted to eat as soon as they are awake to assist with the recovery process.

### **Good and Bad Medicines**

ORAL penicillins such as Amoxicillin and Clavamox can kill your rabbit. INJECTABLE penicillin Procaine G with Benzathine is a fairly safe antibiotic for rabbits.

Good bunny antibiotics include Baytril (enrofloxacin); Diprofloxacin; Chloramphenicol (viceton is the tablet form); Tetracycline; Trimethoprim/Sulfa (Bactrim); Sulfamethazine; and Amalcacin and Gentomycin (short-term use only; 3-5 days due to nephrotoxicity).

Good bunny analgesics (pain medicine) include aspirin; Butorphenol (torbugesic); and Flunixin (banamine).

Remember; do not administer any medications to your rabbit without consulting a veterinarian well versed in rabbit care.

## Grooming and Hygiene

Rabbits can act as if they're hardy creatures, but they are, in fact, extremely delicate—from their skin to their spines to their external systems. Care must be taken to maintain their good health. The following basics are necessary to know in order to groom rabbits safely and to help keep them healthy. For information specifically geared towards the caring for long-haired rabbits, see the reprint of the *House Rabbit Journal* article, "The Well-Groomed Rabbit."

### Shedding

Rabbits shed every 3 months. Every alternate time they'll have a light shedding that may not be very noticeable. Next they'll have a heavy shedding that you will not be able to escape. Rabbits are fastidious groomers. They insist on being clean & tidy and will lick themselves like cats, and like cats, they can get hairballs if they ingest too much hair. Unlike cats however, rabbits cannot vomit. If hairballs are allowed to form they can become gigantic masses of tangled hair & food and will block the stomach exit, causing the rabbit to starve to death while his stomach appears to be very fat. While this is rare in rabbits, if the rabbit has longer hair, or grooms excessively, it can be a problem.

Rabbits should be brushed at least weekly. In addition to removing any loose hair, this weekly brushing session helps prepare them for the daily brushings that they must undergo when their heavy shedding begins—again, more so for long haired rabbits than for short haired rabbits.

Rabbits will shed in different ways. Some rabbits will take a couple of weeks or more to lose their old coat of fur. Other rabbits will be ready to get rid of their old coats all in one day and these rabbits are the ones that cannot be neglected once they start shedding. You can often remove a very large percentage of hair by just pulling it out with your hand. But, however you remove it, remove it as soon as possible or your rabbit will do it during grooming. Bald spots on rabbits are quite common when they are shedding. But, short haired rabbits can do the same thing. If these bald spots occur from shedding, they will begin to grow back within a week or two.

### Fleas and Mites

Fleas, ear mites and/or fur mites are the usual culprits. In some ear mite cases, scabs can be seen in the ear canal. Your veterinarian will decide what treatment is needed; typical treatment is Ivermectin. If one rabbit in your house has mites, it is best to have all the rabbits checked, as mites can be transferred easily.

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### Baths

Although some bunnies grow up swimming in the family pool and going on camping trips where they paddle around in the lake, most rabbits are not used to this routine and would find even an occasional bath quite stressful. NEVER--unless your veterinarian advises it to bring down a fever--

should you give a sick rabbit a bath. Because seemingly healthy rabbits can have undiagnosed problems, it's best not to subject them to the stress of a bath. If your rabbit is very badly infested with fleas, there's a good chance that he is already compromised and may go into shock when bathed. Also, a thoroughly wet rabbit takes a very long time to dry, so spot cleaning the dirty area is better than an over-all bath. Normal rabbit body temperature is 102. Since they are subject to heat stress, use a warm dryer, not hot.

### **Mats**

Rabbit skin is delicate and highly susceptible to cuts, so mats should not be cut off with scissors. Instead, use a mat splitter or mat rake to take the mass apart. Bunny fur usually requires a finer blade than most cats and dogs.

### **Feet**

House rabbits who spend all of their time in homes with carpeting and linoleum periodically need to have their toenails trimmed, in the same way as dogs and cats. If the rabbit has light colored nails they are very easy to trim. You can see the blood inside the nail and you clip just before that point. The dark colored nails are harder to see where they should be clipped but it is still visible. You can purchase a product called Kwik Stop to keep on hand in case you accidentally cut the nails too short. Because of risk of infection, declawing is definitely NOT recommended for rabbits. If excessive digging or scratching is a problem, then a large box of hay or straw, where bunny can pursue these activities, may help.

If the padding (fur) on the feet is worn down, exposing inflamed or callused skin, then soft dry resting pads (rugs) should be provided. Exposed skin that becomes urine burned or broken is very likely to infect. Take extra care that rugs and litterboxes are kept clean and dry.

### **Incontinence**

A rabbit with a urinary infection or a disabled older rabbit may not be able to project urine away from the body. The result may be saturated fur around the hindquarters. For milder cases, shave the areas that get wet so the skin can dry (remember, rabbit fur takes a long time to dry), rinse the affected areas daily, and follow up with a dusting of baby powder or corn starch. For more infirm cases, disposable baby diapers turned backwards so the tabs face forward do wonders for keeping the moisture away from the skin. (Newborn diapers work well for an 8 pound rabbit; smaller rabbits may need diapers made for preemies.)

### **Ears**

Ear wax can be lifted out with a cotton swab, being careful not to push on wax in the canal, or you can try a mild ear cleaner containing Chlorhexadine, such as Nolvasan Otic. For ear mite infestation, apply a topical medication such as Mitox. The veterinarian may also prescribe Ivermectin.

### **Teeth**

Rabbit's teeth grow continuously and must be checked to ensure that they are wearing down properly. While you're brushing your rabbit or clipping his nails also look at his teeth to make sure there is not a problem. Bunnies with straight teeth will keep them worn down with everyday gnawing and chewing. Rabbits with malocclusions, or crooked teeth, will need to have their teeth kept trimmed or perhaps removed under surgery. Your veterinarian can show you how to clip a rabbit's teeth or they can clip them for you.

## The Great Outdoors?

The pleasures of being outdoors include fresh air, sunshine, and freedom to run, chew and dig. For a prey animal such as a rabbit, your garden can also be a place of danger from:

- Predators
- Theft or teasing by humans
- Moldy or poisonous plants
- Toxic pesticides or fertilizers
- Exposure to sun, heat, wind, or wet
- Bacteria contained in dirt
- Diseases spread by flies and mosquitoes

Of these, the greatest threat is attack by predators. These occur primarily at night, but can also happen occasionally in the daytime. Hutches or cages do not provide enough protection to make it safe to leave the rabbit outdoors 24 hours a day. The House Rabbit Society receives many calls every week from baffled people whose rabbit died during the night while confined in a hutch. “I don’t understand — the hutch wasn’t even unlocked, and the rabbit didn’t have a mark on him. What happened?” With her acute vision, hearing, and smell, a rabbit can sense the presence of a predator such as a raccoon even in your neighbor’s yard. She may panic and injure herself, or she may die of shock. Many raccoons can open hutches. Other predators include coyotes, owls, hawks, possums, cats and dogs.

Some outdoor rabbits avoid death by predator or the other risks mentioned. But what is the quality of life for an animal living outdoors all the time? And what sort of relationship can you build if your bunny is out there and you’re indoors? A life spent confined to a hutch is boring, depressing, and stressful for a sensitive creature such as a rabbit. A life spent unconfined but outdoors is simply too dangerous for domestic animals. By domesticating them, we have deprived them of whatever natural ability they had for survival on their own.

For safe daytime exercise, we suggest a pen within your fenced yard, one with a top and bottom as well as sides, to keep the rabbit from digging out and unwelcome visitors from climbing or jumping in. A plan from the *House Rabbit Handbook* (Drollery Press, 1991) describes an 8’L X 32”W X 32”H made from a frame of pine 2 X 4’s and 1” welded wire. A plywood top gives shelter and shade, and a wire floor covered with clean straw provides the rabbit with safe material to burrow in.

If your rabbit currently lives outdoors, we strongly urge you to bring her in at least during the night, when predators are most common. Even if she’s confined to a smaller cage, or a bathroom or utility room, she’s safe, and she’s making a first step to being part of your family. There’s no magic in turning an “outdoor rabbit” into a house rabbit. It can begin in a single evening.

Don’t think your yard is free of predators just because you live in the city. Raccoons come up through storm drains and arrive in very urban areas. These agile animals can climb trees and open doors. Wire cages are no protection for your bunny. If your bunny cannot stay in your house at night, make sure that he’s enclosed within solid walls and behind a solid door — a garage, shed, or basement — with a good lock.

# Rabbit Food Pyramid

## DEFINITE NO-NO'S

*These are foods that should not be given at any time.*

- No Chocolate (poisonous!)
- Cookies
- Crackers
- Breakfast Cereal
- Yogurt Drops
- Pasta
- Bread
- Most "human" treats

## Treats

*Limit to very small amounts, 1 or 2 times per week; this includes fresh fruits. Consult with your rabbit's vet.*



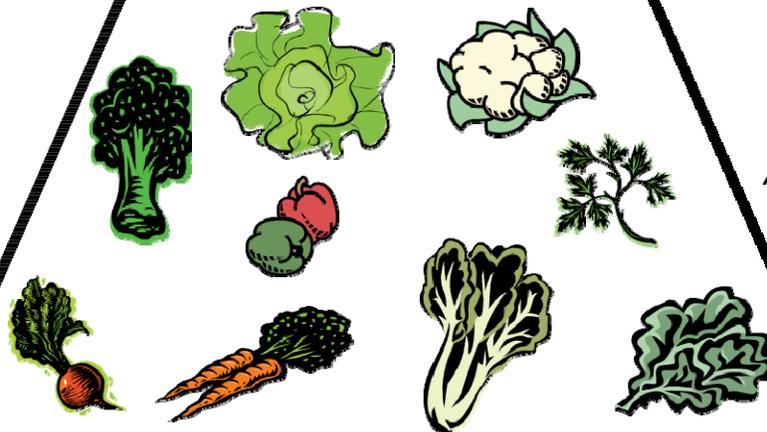
## Pellets

*Limited, high-quality pellets (no seeds or dried fruits) as directed by your rabbit's vet.*



## Vegetables

*A variety of fresh greens, daily.*



**Timothy**

Orchard  
Grass

Oat  
Hay

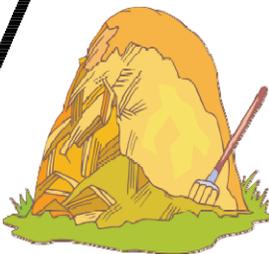
**Brome**

**Hay**

*Only very small amounts of Alfalfa, if any. Check with your vet.*

## Unlimited Grass Hays

*This is the staple of your rabbit's diet.*



*Be sure to consult with your veterinarian on the proper diet for your rabbit's optimum health.*

