

## Rabbit care:

### Diet:

#### Good foods:

Timothy hay, alfalfa/timothy pellets (in moderation), apple (in moderation)\*, carrots (in moderation), pear (in moderation), clover (in moderation), parsley (in moderation), beet tops, dandelion greens, grasses, and edible leaves. Note: Rabbits must always have a constant supply of water. A day or two without water can be fatal for them. \* *Apple seeds are poisonous so be sure not to feed the seeds to your bunny.*

Your rabbit's diet should be 80% timothy hay. Focus on water and dry foods.

Feeding too many fresh vegetables to a rabbit can unbalance their digestive system, resulting in diarrhea and even death. If you find that your bunny can't handle fresh carrots, parsley, and other fresh fruit or veggies, try cutting the fruit or vegetables thinly and placing them out to dry (or use a dehydrator). In the wild, rabbits spend much of their time foraging for dried leaves and dry grasses. Again, hay is very important. When stacking hay, it's best to stack it vertically. To a rabbit, vertical hay means "fresh" whereas horizontal hay means "stale or soiled".

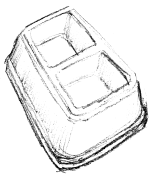
#### Not so good foods:

Lettuce, celery, pasta, broccoli, cauliflower, potatoes, yams, and bread. Too much lettuce will make your rabbit very sick. The same is true of most fruit and vegetables.

#### Bad foods (do not feed any of these to your bunny):

Sweets (incl. chocolate), milk or milk products, meat, potato chips (or any other foods containing synthetic fats or refined sugar).

#### Suitable food dishes:



Rabbits are expertly skilled at tipping their food dishes over, so it's best to get a dish that's difficult to flip. One that flares out at the base and has some weight to it is usually best. The second issue has to do with rabbits accidentally nudging food into their water dish. Hence I usually get two dishes like the one shown; one for water and one for food.

### Housing:

Most domestic breeds cannot withstand cold winter conditions. Because of this, it's important not leave your rabbit outside in cold weather, unless s/he has a heated and draft-free hutch. Even so, this can be an issue since most hutches are too small for rabbits to stay in for long. Indoor rabbits are happy rabbits. Besides, they want to be where you are, not in a box freezing during the winter. Rabbits can be litter trained and can make good house pets. Just be sure to secure all power cables and other items that they should not chew on. Shredded newspaper makes for good and inexpensive litter. Change their litter box every day or two. Never keep your rabbit in a cage for too long. They should be allowed to roam often and should be located somewhere near activity and people (rabbits are social animals and become lonely

easily). Anything colder than 17 degrees Celsius or 63 degrees Fahrenheit is uncomfortable for most domestic breeds of rabbit.

### **Grooming:**

Be very careful when clipping your rabbit's nails. Only clip the very front (white) area. Do NOT clip into the pink area of the nail (a rabbit's nails rarely need to be clipped). For rabbits with darker fur, it can be harder to tell since the nail and the toe look like one long nail. So err on the side of caution and just take the very tip of the nail. There's no need to be overly aggressive when clipping rabbit nails.

### **Bathing:**

The rule of thumb is to never bathe a rabbit. A healthy rabbit does not need to be bathed. Unless your bunny has soft stool impacted on his/her bottom, there's no reason to bathe them. You want to keep your rabbit warm and dry (with dry being the most important factor). Pneumonia can kill a rabbit in less than 48 hours, so keeping your rabbit dry and away from drafts is extremely important. You may notice that wild rabbits can handle cold weather; Firstly, they've adapted to it. Secondly, if you watch them closely you'll see that they avoid damp conditions and will actually go out foraging on a colder dry evening rather than on a relatively warmer wet evening.

### **General:**



It's a good idea to have your rabbit spayed or neutered (this keeps them from spraying, digging, or breeding). They must be over five months old before this procedure can be done. Make sure that you deal with a veterinarian who has experience working on rabbits.

Rabbits are very intelligent and become bored quickly. Be sure to give your rabbit an assortment of fun toys to play with. Only allow young children to play with your bunny when supervised. Remember - rabbits are fragile. Don't let anyone pick your bunny up by the ears!

### **Picking up a rabbit:**

When holding a rabbit, use both arms to hold him/her close to you. Don't give the bunny a chance to jump free. A fall can be very damaging. If your rabbit starts kicking, let him or her do so. It's important not to constrain a rabbit's rear legs since rabbits have been known to break their own backs under the force of their rear leg muscles.

It's for this reason that you may see veterinarians hold rabbits with the bunny's back to their sternum and one hand under the bunny's rear with the back legs hanging out. This allows the rabbit to kick freely and avoids the issue of too much strain on the bunny's spine.

Although you see video of people picking rabbits up by the scruff of the neck, this actually should never be done. If someone absolutely insists on doing this, then they should at least place a hand under the bunny's bottom in order to help take the weight. This method definitely does not work for some breeds of rabbit. A better way is to pick a rabbit up while supporting the feet instead. Make sure one arm is wrapped around the side and rear of the rabbit and the other is under their front paws. Avoid putting pressure on the rabbit's chest.

## Rabbit-proofing your home:

### Securing your back yard:

You'll likely want to fence off a section of your yard to keep your rabbit out of the flower garden. Use a sturdy fencing material. I've used heavy plastic fencing material, secured with rebar posts and wire ties. This worked out quite well. There's a gate that can be opened and closed, to allow the bunny to have the run of the yard (when I'm there to supervise him). I used hay wire and heavy staples to make sure that he can't get under the deck. Trying to get a rabbit out of an enclosed and covered area can be very difficult. When selecting wire, it's best to go for galvanized hay wire with half-inch squares. Beware of wire with squares or openings that are larger than one inch, since a rabbit's head is wedge-shaped and if they manage to squeeze their head through, they might not be able to get it back out again.

Also be sure to seal off all parts of the yard that the bunny might try to escape through. Remember - most rabbits are skilled at digging. That - and they don't give up easily.

If your bunny continually tries to dig under your fence, try placing flat stones horizontally where the fence meets the ground. Rabbits prefer not to dig under objects like these, since they'd rather not risk having something fall on their heads. The stones should be fairly wide, but not heavy enough to hurt your bunny (just in case he or she does try to dig under them). The world outside the yard is a dangerous place for a rabbit -- especially if there are roaming dogs and cats.

It's also a good idea to avoid using pesticides in a yard that has a rabbit (or small children) in it. In cases like this, it's best to find some safe and organic means of dealing with pests.

### Indoor and outdoor enclosures:

Indoor enclosures can be made from a variety of materials. I like to use carpet for the base and plastic lattice-fence material for the walls. A wall height of 3 feet is enough to keep most rabbits from escaping. The lattice works well, since it keeps them in, but allows them to see through. I typically line the interior with haywire. Haywire with half-inch or one-inch size squares works nicely, and the wire component only needs to be about a foot high. The lattice work is then wired together and also wired to the carpet (be sure to ground down / cover any sharp wire ends).

Outdoor enclosures can be built the same way. However, since these are typically on grass or soil. Exterior enclosures need sufficient shade and areas that are well protected from rain. I generally bring my rabbits indoors if it rains or if the temperature drops below 17 degrees C (63 degrees F). As a result, I have both an indoor and outdoor enclosure. Ideally, an outdoor enclosure should be fully covered so that cats, weasels, and birds of prey can't get at your bunnies. Official housing for rabbits should be indoors. I only use outdoor enclosures for a few hours at a time and for days that are moderate or warm.

When building an enclosure, try to give your rabbits plenty of space to run around. If you can include shrubs or a tree or two in the outdoor enclosure, all the better. Finally, keep in mind that rabbits can dig holes quickly. So keep an eye on them and block off any escape tunnels that they might be working on. Domesticated rabbits don't know how dangerous the outside world is and will often try to explore new territories.

For both indoor and outdoor enclosures, it's important to use non-toxic materials since rabbits chew and lick things regularly. Including platforms that are spaced one foot apart vertically is also a great way to increase square footage and also provide

your rabbits with secure spaces where they can relax. My indoor enclosure features a series of terraced levels that are separated by empty/unused paint cans. Each level is lined with carpet. The platforms are set away from the fence so that the rabbits can't use them to try to jump the fence.

**Wires:**

If your home is packed full of exposed wires like mine is, you'll want to get cable armor. This is available in spools and is a plastic wire guard that has a split down the side so that you can wrap it around power cords and other types of cables. It won't stop a determined rabbit, but it will slow them down. The other strategy is to tuck cables out of reach of your rabbit.

Blocking off certain spaces is also a good policy. Rabbits destroy things. This is a fact of life. Plan for it and you'll be able to live happily with your rabbit. Older rabbits generally are much less destructive to the point where there are rabbits that have full run of people's homes and very rarely cause any issues. Regardless, assume that your rabbit will destroy anything within reach. So be sure to move important books to the higher bookshelves.

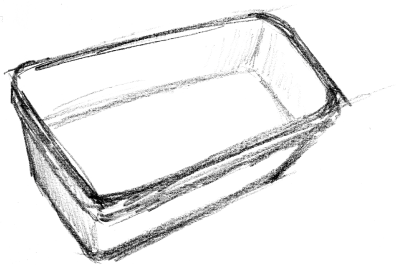
### **Litter-training your rabbit:**

This is actually easier than you might think, now that your bunny has a litter box.

The first thing to keep in mind is that most rabbits hate being in their cage. This will prove to be very useful as you train your bunny.

Odds are, your rabbit will run around the house and leave droppings here and there. Whenever this happens, immediately get the rabbit and show him/her the unwanted 'presents' that they left on your rug. Push the bunny's face toward it (they don't like that). Then, put them back into their cage. As well, place the rabbit droppings in their litter box.

Do this every time your rabbit leaves 'presents' on the rug.



Eventually, your bunny will get the idea. They'll know that they're not supposed to do their washroom duties outside the litter box. As well, they'll equate good behavior with freedom from the cage. Eventually, you'll have a well-behaved bunny, since placing a rabbit in his or her cage can be used as punishment for all types of bad-bunny silliness.

It's important to have a cage that has an opening on the side, so that your rabbit can go back to the litter box on his or her own. Cages that do not have doors on the side may have to be modified. Avoid litter boxes that are triangle-shaped, as they are more difficult to change.

### **Changing your bunny's litter box:**

The method that I use is as follows:

Get a rectangular plastic litter box.

Place a section of newspaper on the bottom of the box and cover with shredded newspaper. Tearing the newspaper into 1'-wide strips works well. I typically stack these shreddings fairly high.

As a rule of thumb, change the litter box every second day if you have one rabbit, and every day if there are two rabbits.

If you have a plastic litter box and want to clean it out, just use soap and water. You can even spray it out with a garden hose.

Warning! NEVER use bleach to clean the litter box (or any toilet - for that matter). Urine can turn to ammonia over time. The combination of bleach and ammonia creates a lethal gas.

Good and not-so-good litter box materials:

I've found that wood shavings are not the best choice, since they tend to stick to the bunny's fur and then end up being tracked all over the house or apartment. Kitty litter is not a good choice, since most rabbits will regard it as much too dry and dusty. Rabbits like ground soil, but it's too much hassle to change regularly (and almost impossible during a cold winter). There are also pellets made of recycled newspaper. These seem to work fine in most cases. However, if you ever see your rabbit eating these, then it's a good idea to stop using it and switch to something else. Vets have voiced concerns that this type of pelletized litter could potentially stop-up a rabbit's gut.

#### **Other behavioral tidbits:**

Digging - this usually means "I'd like to be down on the ground or downstairs". In my case, this typically happens on the main floor when my rabbit is on the sofa and he wants to go downstairs to use his litter box. His other methods of telling me this include sitting up and staring at me intently (not moving) or tugging on my shirt.

Nipping - If you're carrying a rabbit and they pinch your arm with their teeth, that means "Put me down onto the ground now!"

Snarling and swiping at you with their front paws - This essentially means "Leave me alone". It's more likely to happen in the afternoon when they're trying to get some sleep and especially when they're under a low overhang or some other low sheltered area.

Ears forward - this is a sign of an out-going rabbit. They're interested in what you're doing and would like to visit with you.

Ears flat back - typically indicates that they're aloof and guarded. They likely want to be left alone. Or they might be scared.

Thumping - this is a type of warning. It indicates potential danger and they may well be frightened. It can also indicate frustration. Some rabbits thump to indicate that you're doing something incorrectly or that you're not complying with their wishes. In other cases it means that they're just excited about something. In short, a thump is the equivalent of an exclamation mark.

Murping - this means "I want that". It could mean that your bunny wants a treat. It could also mean that your bunny just spotted the object of their desire (especially if they haven't been fixed).

Screeching - a high-pitched scream from a rabbit is hopefully something you'll never hear. It happens when they're startled or terrified.

Flopping over on their side - A sign of being extremely relaxed. They're content. A version of this that's more extreme is when they flop over onto their side or back and appear to be dead (except that they're still breathing). This appears to be a

type of reset; the ultimate form of de-stressing. When they get up again, they usually look more calm and centered.

A chuk chuk chuk noise when you pet them - this means "That's nice. Keep doing that."

A single click - typically this means that your bunny is in pain. It's sometimes confused with the previous sound in this list. This is an issue since the two sounds indicate totally opposite things. If your rabbit is tensed-up/compact, ears flat, and looks stressed-out when you hear this, you'll want to contact a veterinarian.

If a rabbit is unfamiliar with you, one way to break the ice is to sit on the floor with your rabbit and wait.

Let them come to you. Don't reach for them when they approach. If they're still cautious, try lying down on your back or side and wait. They will almost certainly approach and start to investigate. Some people will entice rabbits with treats. This is fine, however there may be no need in many cases.

Rabbits are social creatures and they get lonely easily. They usually hang out in groups. Hence it's important to spend a lot of time with your rabbit(s) and to keep them somewhere that they can see people going by. They want to be part of your world and may even be offended if you block them off from the space that you're in. Of course, you may not have any choice, since rabbit-proofing your home will undoubtedly involve keeping them out of certain rooms.

As part of their culture, rabbits like to eat as a group. You can pay your rabbit a compliment by eating in their company.

Try giving your rabbit some food when you eat your supper or breakfast. Then note their body language. Rabbits appreciate being included as part of the group.

Rabbit schedules:

Typically, rabbits are up and around between 10PM and 10AM. They're generally most tired between noon and 6PM. Personally, I try to let them rest when they're tired and visit with them either when they're alert and looking for me or after 9PM (or early in the morning like 6 or 8AM). Note: some rabbits cat-nap between 3AM and 4AM

### **Good use of form and space (according to rabbits):**

Rabbits have a very definite sense of what is and is not considered comfortable use of space. There are numerous 'forms' that rabbits like. For example:

#### ***The round***



This consists of a circular structure like a flowerbed. Typically, this type of formation is about four to five feet in diameter. This is especially good if it has a circular trench surrounding it for your bunny to lie down in.

For a rabbit, the strategic use of such a structure lies in the ability to evade a predator by running around it.

#### ***The twin trees***



These are highly popular among rabbits, since bunnies enjoy escaping from predators using a figure-8 pattern of evasion. A twin set of trees set about a foot apart is perfect for such a maneuver.

**The trench**

Bunnies like trenches. They especially enjoy running the length of the trench at high speeds. Shallow trenches make for excellent places to sprawl out.

**The over-hang**

Low over-hanging structures are something that rabbits almost immediately gravitate towards. Such a structure allows the bunny to feel more secure, since it's more difficult for a predator to pounce on you when you're covered by a low over-hang. The ideal height of the over-hanging structure is about half a foot to one foot above the rabbit's back. This includes things like the over-hang of a backyard deck and numerous types of chairs and sofas.

**The tube**

Large tubes (even short tubes) are things that remind rabbits of home. Rabbit warrens are mostly comprised of tunnels. This is where they are born and where they often feel most comfortable. Even if you provide your rabbit with a short tube of some safe-to-chew material, you'll find him or her lying with the front part of their body in the tube and the back part outside of the tube (unless the tube is long enough to fit the entire length of the rabbit). Just having their whiskers brushing up against the interior of the tube is enough to give them the feeling that they're in a long tunnel. It's kind of like a virtual reality helmet for bunnies.

**General rabbit design observations:**

A hallway that terminates is fun to run through, but not a place to reside in. Rabbits find this configuration to be somewhat unnerving. To make them feel better, give them a few boxes to play with. You'll soon find that they've rearranged the boxes to create an evasion pattern. In their minds, they are thinking that if a predator should enter that space, they will have an escape route. No one likes to be cornered in a dead-end alley.

Placing a rabbit in an open room with a high ceiling is also unnerving to long-eared critters. If you put a chair, coffee table, or sofa in the room, your rabbit will go sit under it. It's because they're looking for cover from aerial predators. So be sure to give your rabbit some spaces with low ceilings that they can sit under.

Multiple exits are the most comfortable spaces for rabbits. Ideally, they'd like their back to a wall with a minimum of two exits. They prefer three exits. Hence a low table or sofa against a wall are both good options as far as rabbit evasion tactics are concerned.

Why do rabbits dig when they're about to lie down? They're digging what's referred to as a scrape. It's a shallow trench that they can lie down in to reduce their above-ground profile.

If you give a rabbit a blanket you may even see them pushing and pulling it into the shape of a scrape. Rabbits like to have something up against their side. If you put your hand on a rabbit's side, s/he'll probably lean into it. If you take two rabbits that are on good terms with each other and place them side-by-side, they'll lean into one-another. This is likely part of how they communicate when underground and in pitch darkness.

Related to this are rabbit greetings. Your rabbit may quickly nudge you two or three times in passing. This is a form of handshake or 'pound' greeting. Again, it's a practical way of acknowledging others when navigating the darkness of the underground warren. If your rabbit does this to you, take it as a compliment, since they're accepting you as part of the group.

### **How much space?**

A single rabbit would like to have around 350 square feet of space. Ideally a 30 foot run is required so that they can get up to full speed and keep their muscles in good condition. As you can tell, that's a lot more space than most rabbit owners can provide. It also shows how harsh a rabbit cage is. Hence the need for a good enclosure and for letting your rabbit out so that they can run around under supervision. If you're home, there are bound to be spaces where your rabbit can be allowed to run around (hallways and carpeted stairs are greatly appreciated by house rabbits).

### **Leashes:**

Some rabbits resent being on a leash since it puts them in a potentially hazardous situation. Rabbits are constantly thinking about potential predators, and a leash makes them sitting targets. For this reason it's generally not a good idea to take your rabbit out to a public park. The danger from dogs and birds of prey is too great. A leash is really best used for protected indoor environments like rabbit exhibitions or competitions.

### **How to properly pet your rabbit:**

Pretty much the only part of a rabbit that ever needs to be pet is the head and neck area. Perhaps the best place to start is with the cheeks. Pet the rabbit's cheeks gently from front to back. They'll usually start making 'chuk chuk' noises with their teeth. This is a good sign, since it means that they're relaxed and content. Next, try petting them or very gently scratching them just above the nose.

Most rabbits really like this. If they don't at first, they usually warm up to the idea in time. Note: avoid touching them right on the nose or mouth. They don't like that very much.

The next major location is behind the ears, and around the neck. This is much like a gentle neck-massage on a human. Rabbits really go for this too.

If your rabbit ever pushes his or her face under your hand, it also means that they want you to pet them some more.

Try to avoid petting the back half of your rabbit. That, and try not to grab them from straight above. Many rabbits find this to be unnerving. Perhaps it reminds them of a predator trying to pounce on them.

Your best bet is to focus on the front half of your rabbit. This also applies to catching a rabbit. If you grab for the back half, they'll just run away. Speaking of which... If your rabbit runs away, feel free to chase after him/her. Regardless of what you may have read elsewhere, rabbits really do enjoy being chased. In fact, they may even stop and let you catch them once they've had a good run. This is all part of the role-playing in which they regularly engage in order to stay agile. And if your rabbit is lying down and sprawled out, feel free to pet the entire length of your bunny. This is a case in which they don't seem to mind this.

Don't be afraid to pet your rabbit backwards. Unlike most cats (which will take a swipe at you if you pet them the wrong way), rabbits generally don't mind being pet 'against the grain' -- so to speak.



**Digestive health:**

Rabbits are quite similar to horses. Their diet is about 90% the same and they suffer from many of the same ailments.

While they enjoy oats, too much will cause bloat. This can become quite serious and could involve a trip to the vet. As such, it's a food that I've stopped feeding to rabbits.

Green leafy vegetables, fresh fruit, and other 'wet' foods can also cause problems. It seems that rabbits need to bias their diets in favor of dry foods. The consumption of dry food with a constant supply of water tends to result in better gut health than if you feed them hydrated foods.

My rabbits have long life spans (10 years or more), are in excellent health, and receive only the following:

- unlimited Timothy hay
- unlimited water
- a total of 1/3<sup>rd</sup> cup of extruded timothy hay pellets a day per rabbit
- dried thin slices of apple (do not feed them the seeds, since they're poisonous)
- dried thin slices of carrot

The apple and carrot are measured out each day. Each rabbit gets five or six slices of apple/carrot a day.

If you were to give your rabbit non-dried foods, here are some that seem to work well (in moderation):

- carrot tops
- parsley
- clover (they should not have too much of this)

You can tell a lot about your rabbit's health and what direction it's trending by looking at their stools. Rabbit 'turdlets' should be like an oval ball of hay. They should be dry and break apart quite easily. If wild rabbits or hares live in your area, take a look at their droppings: you can actually see the strands of hay. As a rabbit's gut health declines, one of two things will typically happen:

- 1) they'll develop diarrhea (consult a veterinarian if it persists more than 5 days).
- 2) their 'turdlets' will get smaller, darker, tougher, and denser. Eventually they end up being rock hard.

If you see either of these issues then you must quickly overhaul your rabbit's diet and decrease the amount of hydrated veggies, fruit, and extruded pellets. Instead, get your rabbit on a diet of exclusively dry foods (and lots of water, of course).

Timothy hay should always be your rabbit's main food source.

Some type of chew block or branches from a fruit tree is also important, since it allows them to maintain their teeth. Rabbits don't just chew to annoy you, they chew because they have to. Their teeth are constantly growing. Be sure that the tree you offer branches from has not been chemically sprayed.

If your rabbit suffers from diarrhea or soft stools and you can't get things back to the normal spheres of ground hay, then it's time to see a vet. Rabbits need a constant supply of food and water or their digestive system runs the risk of stopping (and never starting again). A rabbit veterinarian can fix this, but only if you contact them promptly. It's imperative to keep your bunny away from flies or from wet

grass or wet ground soil while they have diarrhea. If there are flies hanging around your bunny or if your rabbit becomes increasingly unresponsive, take your bunny to a vet immediately. It's important to not confuse soft stools with a special nutrition pack that a rabbit's digestive tract is able to produce. These look like blackberries and are usually eaten as soon as they are produced. Note that, as hay-eaters, rabbits have the ability to recycle their food.

#### **Dental health:**

Hay is one of the main regulators of rabbit dental health. Be sure that your bunny has plenty of hay. If your rabbit doesn't want to eat hay, then give him or her enough other food for supper to last until around midnight. Then leave them with the usual steady supply of hay and water. Around 4 AM your rabbit will get desperate and will start eating hay. I can't take credit for this strategy, but I can certainly vouch for it. Note: rabbits rank hay by quality. Hence you may see them throw out strands that they think are substandard.

Another factor is the breed of rabbit. Lops generally have more dental issues, since their jaw is compressed and it makes it harder for their teeth to line up properly. Improper tooth alignment or a lack of roughage can cause bone spurs to form on their teeth. These sharp protrusions are painful and need to be taken care of by a competent veterinarian.

This also happens to horses. A horse vet will likely refer to the process of grinding down the spurs as "floating their teeth". If your rabbit drools, has bad breath, winces when you pet their cheeks, or refuses to eat hard foods, then it's time for a trip to the vet to check their teeth.

#### **In closing:**

Despite the general view of rabbits as a children's pet, they are actually an advanced pet and are not suitable for children. Rabbits are capable of being as highly-socialized as a very tame cat or a needy lap dog. The key is to put in the time with your pet rabbit. Despite their mischievous nature, rabbits can be very rewarding pets. They're clever, so as a rabbit owner, you must be clever too.

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Be sure to pick up a book on rabbits (there's a lot to know) or check the web.

[www.blitter.com](http://www.blitter.com) -> Otherworld -> Rabbits

