



Rabbit Wellness

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The Standard of
Veterinary Excellence

Caring for Your Pet Rabbit



Congratulations on your new rabbit! Inside this booklet are some tips and tricks that will help you keep your new furry friend happy and healthy for many years to come.

Rabbits are social animals who love to interact with both humans and/or other rabbits. Rabbits will become bored if left by themselves for long periods of time, even to the point of becoming lonely and depressed. While toys can alleviate some of this, they require human attention and interaction. Many rabbits also enjoy having another rabbit as a friend; however, finding a mate for your rabbit may prove to be a challenge as rabbits are quite choosy

when it comes to a partner!

Rabbits are not like dogs or cats. Many learn how to use a litter box while others come to you when called, but rabbits cannot be compared to either of these animals. Each rabbit has his/her own unique personality. Curiosity and an investigative nature are prominent characteristics of pet rabbits. They need to familiarize themselves with their settings to feel comfortable, but once they do, they like things to stay the same (in other words, rabbits are not big fans of change).

Do You Know That -

- Rabbits need a lot of space! We recommend using an x-pen rather than a cage. More running room makes for a happier bun.
- Rabbits are **not** low maintenance - it takes a good deal of work to properly care for a rabbit.
- They do love to chew, so lots of safe chew toys should be provided, and any spaces where the rabbit can run must be carefully rabbit-proofed
- Rabbits need to be housed indoors, where they are safe from predators (even in the city), extreme weather (which we have constantly), and **RHDV** (see page 9).
- While they are generally quiet pets, rabbits are not a good match for active young children. **Rabbits like to be near their people, but often would rather not be held.**

Housing



Your rabbit needs an area with plenty of room to play, rest, eat, and exercise. The bigger the area the better and the exact size depends on the size of your rabbit. Using an x-pen is a great idea. They can be added onto to make the area larger, and you can always use a light blanket or throw and pin it to the top if you have a jumper. Cages are generally too small and tend to have wire bottoms; a rabbit's feet can become irritated and inflamed (known

as sore hocks) if in constant contact with wire floors. If you must use a cage, cover the wire with solid flooring like timothy hay mats, seagrass mats, or newspaper covered with hay. Always use items that can be safely chewed as rabbits are notorious eaters of blankets, towels, rugs, carpets, and cords.

If you are going to use bedding, we recommend unbleached white paper bedding, soft paper bedding, Aspen shavings bedding or Pine pellet bedding. Cedar and pine shavings should not be used; they contain resins that can be irritating to your pet's skin, eyes, and mucous membranes. Hay can also be used as bedding but does not provide odor control.



With time and patience, your rabbit can be litter box trained. Place the litter box in a corner of the area the rabbit has already soiled, and provide a safe litter such as hay, composite recycled newspaper pellets, or wood stove pellets. Place a basket of timothy, orchard grass, botanical, organic meadow, or oat hay near the litter box so that your bunny can nibble while “taking care of business”.

Keeping your rabbit's area clean is very important. Always remove any uneaten fresh foods like greens or veggies from the cage daily. Also, take out any hay that hasn't been eaten especially if it's wet or soiled. Wash out all food and water bowls daily, and, if bunny has one, wash and refill the water bottle. Make sure the sipper tube is clean and that water flows out when your rabbit tries to take a drink.

Litter boxes should be checked and cleaned daily as well. This is important because it gives you a chance to monitor your rabbit's urine and feces and to make sure there aren't any changes that could indicate a health problem. White vinegar is an excellent cleaner for litter boxes as it readily dissolves the calcium deposits resulting from rabbit urine.

Nutrition



The typical diet for the house rabbit includes free choice grass hay. Timothy hay is essential, but some rabbits don't like it, so orchard, barley/wheat mix, and/or organic meadow may also be used. Hay should always be available.

Rabbits under 6 months of age: We recommend **Oxbow's Animal Health Bunny Basics Young Rabbit Food**, an alfalfa-based pellet with extra calcium and protein, or **Supreme Pet Foods Science Selective Junior Rabbit** food, also an alfalfa-based pellet fortified with a blend of amino acids, vitamins, and herbs.

Please note that you should also be giving him/her alfalfa hay along with the pellets. You should start mixing timothy hay into the alfalfa when your little one is around 6 months

old, gradually decreasing the amount of alfalfa while increasing the amount of timothy until there is no longer any alfalfa being given. By the age of 7 months your rabbit should no longer be eating alfalfa.

Please note: Baby bunnies' digestive systems are much more sensitive to changes in food, are more susceptible to digestive related problems, and can physically go downhill quickly when they do get sick.

Introducing greens can be problematic for a baby bunny's gut. If your rabbit has not had access to fresh foods before, then allow them to settle in your home before introducing new foods so you aren't making lots of changes at an already stressful time. At twelve weeks of age or two weeks after you've gotten your bunny is a good guide. If your rabbit has had any digestive issues at all with hay or pellets, then hold off a little longer.

If you do introduce fresh greens, do it in very small amounts. Leafy greens like red leaf lettuce, green leaf lettuce, or romaine, are best. Other examples are dandelion leaves, carrot tops, spring greens, raspberry/blackberry leaves, and herbs such as parsley and basil. For young rabbits, it's best to avoid fruits, though these can be introduced as treats later.

6 months old +: Once they are around six months old rabbits no longer need unlimited alfalfa pellets. This is the perfect transition time to timothy-based pellets. Some rabbits may still need a bowl of pellets but try not to have it out all day as they really need to be eating hay. Start giving 2 tablespoons to 1/4th cup of timothy-based pellets per day, and a small amount of fresh leafy greens. Green servings should be no larger than your rabbit's head.

Pellets: There are many choices out there; however, **Oxbow Animal Health's** Essentials Adult Rabbit Food, **Supreme Pet Foods** Science Selective Adult Rabbit Food (be aware that this one is an alfalfa-based pellet), **Supreme Pet Foods** Science Selective House Rabbit Food, and **Small Pet Select** Timothy Based Rabbit Food are all excellent choices for pellets. The Science Selective Adult Rabbit Food pellets are larger in size, which is an excellent choice for bunnies that tend to gobble their food down. Larger pellets offer less chance for choking versus the smaller, thinner ones.



Can be bought at
Petsmart



Can be bought
at Petco



Online only
Small Pet Select



Do not feed your rabbit any of the many commercial pellet mixes that contain seeds, dried fruit, or colored cereals. They look yummy to us, but they are not in the best health interests of your pet rabbit. Rabbits are not seed, fruit or cereal eaters by nature and these types of junk foods are high in sugars and carbohydrates, which can lead to an overgrowth of bad bacteria and gut issues.

When converting a rabbit from one brand of a pellet to another - do so gradually to help prevent digestive upset. A good method to go is the 5/5ths rule. Substitute 1/5 of the old brand of pellets with the new brand and feed this combination for 5 days. An easy way to do this is to mix up five days' worth at one time. For example, if your rabbit eats 1/4 cup of pellets a day do the following:

Day 1 - 5: feed a mixture of 1 cup former brand with 1/4 cup new, desired pellet of choice

Day 6 - 10: feed a mixture of 3/4 cup old brand with 1/2 cup new, desired pellet of choice

Day 11 - 15: feed a mixture of 1/2 cup old brand with 3/4 cup new, desired pellet of choice

Day 16 - 20: feed a mixture of 1/4 cup old brand with 1 cup new, desired pellet of choice

Day 21 : Switch over entirely to new food

From this mix - scoop out their daily feed allotment. Some rabbits are pickier than others and will literally eat around the new pellet. If your bunny does this, be patient. There is always a small percentage of animals that will refuse any changes and test the will and stubbornness of the owner.

Your bunny may also have one serving of vegetables/herbs daily. It is important to introduce vegetables one at a time to see how your rabbit's digestive tract handles the new food. **Before introducing any fresh foods to a rabbit, please be sure he/she has been eating grass hay for a minimum of 2 weeks.**

Some vegetable/herb suggestions:

Basil	Beet greens (tops)	Bok Choy	Broccoli (only
Carrot tops	Cilantro	Red or Green Leaf	leaves/stems)
Dandelion greens	Endive	lettuce	Kale (can cause gas)
Mint	Mustard greens	Escarole	Dill
Peppermint leaves	Radicchio	Parsley	Watercress
Radish tops	Romaine lettuce	Spinach	
	(NO iceberg lettuce)	Wheat grass	

The most common types of foods that do create havoc in the rabbit's GI tract are those that are high in **starch** and **sugars**. These can create a change in the pH of the cecum

and eventually can throw the whole system off. Foods that are notorious for causing rabbit GI problems are grains of any kind (cereals, crackers, bread) and legumes (beans, peas, edamame, lentils, soy nuts) gas producing vegetables like Brussel sprouts, kale, and collard greens and corn. Even fruits, if fed to excess with their high load of sugars and starch, could be a problem and should only be fed as a very small part of the diet.

Water is the number one nutrient requirement for all animals, and fresh, clean water is a must for your rabbit. Water can be provided in a sturdy crock (preferred) or a water bottle with a sipper tube. If your rabbit soils the water bowl, enjoys tipping it over, or throwing his/her toys into it, the bowl should be supplemented with a water bottle. Water needs to be changed daily, and a bottle's sipper tube should be cleaned weekly.

Many owners want to offer treats to their pet rabbits. When fed in limited quantities, fresh herbs like parsley, dill, or basil can be offered as a treat. A small piece of banana or apple is a favorite with many rabbits. If giving dried fruits make sure that there is no sulfur or preservatives.

Oxbow Animal Health makes a variety of treats like Organic Barley Biscuits and Simple Rewards Baked Treats (find at PetSmart). Science Selective Naturals Woodland, Meadow and Orchard Loops are big favorites and are easy to break in half (find at Petco). To prevent digestive upset, it's best to feed the same treats consistently. **Do not overfeed!** One to two small treats per day is more than enough!



Hay needs to be fed in unlimited amounts. Hay is super important as its long fibers help the muscles of the bunny's gut stay strong. A rabbit's complex digestive system means

they need to constantly snack on hay throughout the day to keep things moving inside and help prevent blockages. Some rabbits do not like timothy hay. This is where you must be proactive and find different types of hay to tempt him/her.

All About Hay



There are 3 different types of hays suitable for small mammals: grass hays, legume hays, and grain hays. Grass hays (think Timothy) are the ones typically used with adult small animals, because the protein and fiber levels are a natural fit.

Legume and grain hays are useful for specific situations (senior rabbits or animals who are just not timothy hay eaters) or just to add something different to their usual hay diet.

Grass hays –



Orchard Grass: High in fiber, low in protein. Typical analysis: Crude Fiber 34%, Crude Protein 10%, Calcium 0.33%. Small mammals who are picky eaters or who don't really like timothy hay tend to enjoy Orchard grass due to it being softer in texture and sweeter tasting.



Timothy: The mainstay hay for the healthy adult rabbit. Typical analysis: Crude Fiber 32-24%, Crude Protein 8-11%, Calcium 0.4 – 0.6%. There are 3 different cuttings of Timothy hay which may or may not impact upon your little one's desire to eat this hay. More info on this on the next page.

Legume hay -



Alfalfa: High in calcium and has a higher protein level than timothy and orchard hays but lower in fiber. Fed to babies (less than one year old) or to older animals who are having weight issues. Alfalfa can cause obesity or mushy poop in adults. Typical analysis: Crude Fiber 28- 34%, Crude Protein 13-19%, Calcium 0.46%.

Grain hay -



Oat: This hay comes from the same plants as cereal grain. If this hay is harvested prior to the oat tops ripening, it is green and nutritious. If it is harvested after the oat tops have ripened, the stalks turn from green to brown and can still be harvested as straw for bedding. Typical analysis: Crude Fiber 31%, Crude Protein 10%, Calcium 0.4%.

Timothy hay – 3 different cuts

First cut hay is long and thin. It is higher in fiber with a lower protein and fat content. A great choice for small animals who need to lose weight, suffer from recurring stasis, or have dental issues. This hay tends to be “chewy” and crunchy; however, not all rabbits enjoy the taste. Not as fragrant as second or third cutting. Can be dusty so small animals with respiratory issues may have problems with it.

Second cut has more leaves on thin stems and while the protein and fat levels are a bit higher, crude fiber is a bit lower. Smells great but can be a bit dusty. This is the most popular hay for small mammals.

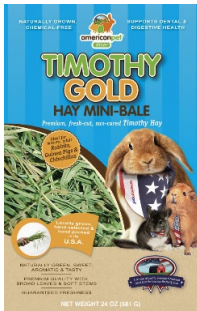
Third cut is super soft and very leafy. It is extremely rich and has less fiber than first or second cut. Because it is more of a “treat” hay, you need to mix this hay with first and second cut to ensure that your little one’s digestive system stays healthy (no stasis issues) and that there isn’t an overload of cecals being produced or that poop isn’t becoming mushy.

How can you tell the difference in cuts of hay that are packaged by **Oxbox**

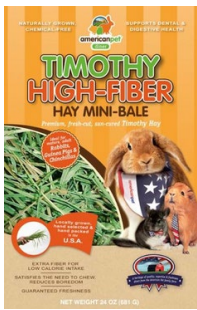


(<http://www.oxbowanimalhealth.com/>)? There is a chart towards the bottom of the package that shows “taste and texture” - sweet to hearty with 5 circles in between and soft to crunchy, also with 5 circles in between. One circle is always filled so that you can see where that hay is taste and texture wise.

American Pet Diner hay (<https://www.americanpetdiner.com/hay/complete-hay/>):



Timothy Gold is either second or third cut mixed with second cut hay. Picky eaters tend to gravitate towards this brand due to its mixture of cuts and fragrance.



Usually a mixture of first cutting and second. Long strands and crunchy, chewy texture. Great for pets with teeth or digestive issues; however, can be dusty thus irritating compromised respiratory systems.

Small Pet Select (<https://shop.smallpetselect.com/>)



Small Pet Select sells their hay by first, second and third cutting. This brand tends to be a good go-to when your pet simply does not like hay. Fragrant, consistently green and leafy.

Thank you to **Small Pet Select** for the use of their fabulous hay pictures in the All About Hay section and for the caption content after each picture.



Rabbit Hole Hay (<https://www.rabbitholehay.com/>) is another great hay company that offers timothy (soft, coarse, and medium), orchard (coarse and soft), mountain, a mixture of wheat, barley and oat, and alfalfa. They store their hay

indoors to keep it fresh as well as protect it from the sun and water.

Rabbit Hole Hay also sells “Food Grade” bedding “Food Grade,” which means it’s approved by the FDA to wrap and serve human food. The bedding is 99.9% dust free and has super absorbent odor protection.

Common Diseases/Preventative Medicine

RHDV2

What it is: Rabbit Hemorrhagic Disease Virus (RHDV2) is a highly contagious and deadly disease caused by a calicivirus that affects both wild and domestic rabbits.

How is it transmitted? It is shed in urine, feces, and secretions from eyes, nose, and mouth, and remains present in fur and internal organs and tissues. The virus infects rabbits through the mucous membranes of their eyes, noses, and mouths. Sick rabbits and insects typically transmit the virus.

I have an indoor only rabbit. Can my rabbit catch this? Absolutely! The disease can be transmitted by people or animals through contact with contaminated objects, animals, insects, or feces. It can be transmitted by indirect contact with exposed objects like feeders, water crocks, cages, carriers, etc. Rodents, insects, birds, and other animals can serve as the mechanical vector for transfer to rabbits or equipment. Humans can also transmit the virus on shoes and clothes if they have been exposed to the virus. Even if your rabbit is kept inside, they are still at risk of becoming infected with RHDV2.

What happens if a rabbit becomes sick with RHDV2? Many times, the only signs of the disease are sudden death and blood-stained noses caused by internal bleeding,

Have there been any cases in our state? As of January 2022 there have been no reported/documented cases of RHDV2 in the state of Virginia. However, there have been confirmed/documented cases in the following states: **Tennessee (Jan. 29, 2022), Kentucky and Georgia (December 2021), Montgomery County, New York (December 2021), Minnesota (September 2021), South Dakota, Florida, New Mexico, Arizona, Texas, Colorado, California, Nevada, Utah, Idaho, Wyoming, Montana, and Oregon.**

What can I do to protect my pet rabbit? **Get your rabbit (s)**

vaccinated. The **Medgene** vaccine is currently available here at Pet Care. It is a two-dose vaccine, second dose is given 3 weeks after the first one. You will need to schedule an appointment with one of our veterinarians for the first dose. The second dose can be given by one of our technicians.

For more information on the **Medgene** vaccine: <https://medgenelabs.com/rhdv2/>

For more information on this disease: **Rabbit Hemorrhagic Disease News Network/Facebook** group (<https://www.facebook.com/groups/1865962866770799>)

House Rabbit Society: <https://rabbit.org/faq-for-medgenes-rhdv2-vaccine/>



Many hay companies have implemented special precautionary measures to minimize the risk of this virus being spread via hay and hay-based products. Simply go to the hay company website and check to see if they are doing all they can to minimize the risk, especially the hay companies that are in the western part of the United States like **Oxbow, Rabbit Hole Hay, KMS** and **Small Pet Select**.

Wellness Visits

Your rabbit should receive a medical wellness check-up at least twice a year. Did you know that the average lifespan of a domestic rabbit is anywhere from 7 to 10 years or more? In that time, your bunny might get sick or have an accident that needs medical care. Routine vet visits are essential; they allow us to evaluate your bunny's general health and become aware of any health problems before they become serious illnesses.

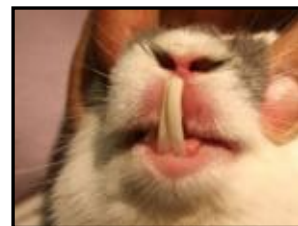
GI Stasis: Rabbit owners may experience circumstances when their rabbit will stop eating, become less active, act depressed, and produce extremely small or no fecal

droppings at all. Some of these cases progress and worsen to the point where the rabbit is experiencing abdominal bloating and possibly diarrhea. These rabbits can quickly become lethargic and will sit in a hunched over position and may even grind their teeth, a sign of being in pain. All these situations may be varying manifestations of rabbit indigestion or Gastrointestinal (GI) Stasis, a syndrome where the normal muscular contractions of the stomach and intestines are greatly diminished and the normal bacterial and protozoa inhabiting the rabbit intestines are thrown off balance.

Several factors can lead to the onset of GI Stasis including feeding the rabbit inappropriate foods and treats, a stressful change in the rabbit's environment, pain from another underlying condition such as dental/tooth points or spurs, or an intestinal blockage from ingestion of fur or something chewed while out exploring the home surroundings.

This is an emergency ~ bring your bunny in to us immediately!

Dental Care: Some rabbits' teeth are prone to dental problems such as overgrown incisors and molar spurs. Some rabbits have a malocclusion that results in improper wear of their incisor teeth. As a result, these front teeth may grow to a point at which they protrude from the mouth and make eating difficult. In these cases, the affected teeth need to be trimmed on a regular basis or should be surgically removed.



Molar malocclusion can result in painful points that irritate the tongue and cheek. Rabbits with molar spurs will have depressed appetites, and you may observe food dropping or excessive drool from their mouths as they attempt to chew. Feeding your rabbit free-choice grass hay stimulates constant chewing action, which helps wear down continuously growing molars. Affected teeth need to be trimmed regularly or extracted.

Spaying and Neutering: We strongly recommend that female rabbits be spayed, and male rabbits be neutered around the age of 4-6 months. Spaying significantly minimizes the risk of ovarian, uterine, and mammary cancers. Please be aware that reproductive cancers are quite common in rabbits. There is no chance of uterine infections (pyometra) if there is **NO** uterus. Females have an extremely high rate of uterine cancer as they age, so it is important to spay your rabbit while she is still young.

Neutered males are less territorial, less aggressive, and less likely to mark their environment by spraying urine.

Most rabbits can have surgery once they have reached 4 - 6 months of age. Age may differ depending on the breed of rabbit and its size. An examination is required by one of our veterinarians prior to surgery; our doctor will give your pet a complete physical exam and answer any questions you may have about spaying and neutering. A pre-anesthetic blood panel prior to surgery will ensure that your rabbit is healthy on the inside as well.

Calcium Metabolism/Bladder Stones/Urinary “Sludge” Syndrome

Rabbits don't metabolize calcium like other mammals; they will absorb nearly all the calcium they consume. Excess calcium is then filtered through the kidneys and excreted in the urine. That's why normal rabbit urine will look “cloudy” – this is due to all the calcium carbonate crystals in the urine.

Adequate dietary calcium is essential for strong bones and teeth. Some rabbits that eat a relatively high calcium diet won't develop bladder sludge at all; however, some animals on a low/adequate calcium diet will get sludge. Some other risk factors that may increase potential for development of bladder stones include:

- Obesity
- Inactivity
- Decreased hay intake

And, of course, the plain truth is that some animals are genetically predisposed to developing bladder sludge.



Potential symptoms of bladder sludge to look out for -

- Signs of blood in the urine (hematuria)
- Slow or frequent urination of small volumes
- Signs of painful urination (dysuria)- rabbit sits hunched in litter box
- White crystals in the urine
- Dried sludge on his/her hindquarters.

What can I do to prevent/treat bladder sludge?

1. Increase water intake - make sure both a bottle and tip-proof water dish are always available to encourage drinking.
2. More exercise. The more your rabbit moves, the more they shake up the contents of their bladder. This moves the high calcium urinary sediment around, helping prevent stone formation. Movement may also stimulate a desire to empty the bladder more regularly.
3. Give them wet, fresh greens.
4. Eliminate packaged treats. Packaged treats provide concentrated little nuggets of nutrients, which may not be beneficial for animals with bladder sludge. The increase in greens will be their new treat.
5. Offer a variety of grass hays.
6. Offer a grass hay-based pellet at recommended daily feeding amounts.

Trouble urinating is always a reason to schedule an immediate visit to Pet Care. It will not resolve on its own.

Respiratory Tract Disease

- *Pasteurella multocida* – a Gram-negative rod bacterium, this is the most common cause of rabbit respiratory disease, earning it the nickname “Snuffles” amongst rabbit owners. Infection with this bacterium can present as any combination of respiratory disease, ear infections, septicemia, and internal abscesses. It can be spread via direct contact, aerosol, or on inanimate objects, and it can be carried without symptoms by many rabbits.
- *Bordetella bronchiseptica*
- *Pseudomonas aeruginosa* – a Gram-negative rod bacterium that can be resistant to many antibiotics. Can also be normal respiratory flora.
- Benign local neoplasia (often a thymoma) can put direct pressure on lungs.

E. Cuniculi



Encephalitozoon cuniculi, or E. cuniculi for short, is an infectious disease which can cause cataracts, kidney disease or affect the nervous system and cause a head tilt as pictured or partial or complete paralysis. How it infects rabbits and how much disease it is responsible for has been almost as difficult to determine as the name of the organism is to pronounce. Even the percentage of rabbits infected is controversial – rabbit research says anywhere from 40 to 80 % of house rabbits will test positive on serology

(blood test measuring the body’s immune response to the organism).

EMERGENCY – Bring to Us Immediately

- Gastrointestinal (GI) Stasis: not eating for 6-12 hours; no poops or poops getting progressively smaller in 24 hours; no audible bowel sounds, lethargic
- Bleeding: Apply pressure to the artery to keep rabbit from bleeding to death
- Breathing: absent, labored, shallow
- Broken bones
- Dehydration: decreased skin elasticity, dry mucous membranes in the nose and mouth, fast and weak pulse, depression
- Diarrhea: liquid stool (not cecotropes) without hard fecal production
- Fly strike: fly eggs or maggots in wound or skin
- Immobility: partial or total paralysis
- Level of consciousness: listless, limp, unconscious, unresponsive. **NEVER GIVE A RABBIT IN THIS STATE ANY LIQUIDS, MEDICATIONS OR FOOD BY MOUTH.**
- Neurological signs: head tilt, loss of balance, eyes jumping up and down or left and right (nystagmus), convulsions, seizures

The Mystery of Poop: Cecotropes

Cecotropes are soft mucous-covered poops that a rabbit ingests directly from its anus. Generally, they do this late at night or in the early morning hours. That is why they are sometimes called night droppings. Cecotropes are important because they serve as a major source of protein and vitamins for your rabbit. The high fiber, round firm pellets you are used to cleaning up in your rabbit's cage/potty box are his actual feces.



Cecotropes

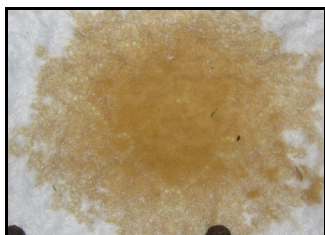


Poop

Your rabbit may be trained to use a litter box but don't be worried if he decides to share his poops throughout your house. This is their way of saying "mine" to their environment. Litter box training can be simple: every time you see your bunny getting ready to go, pick him up and put him in his box. To help get his interest, put his poops and urine in the box beforehand. This gives him a "smell" hint which will help him to remember that there is a reason he is being placed in a box. Some rabbits are quick to catch on while others take weeks, even months.

As to litter, never use cat litter as it is full of dust, scents that are irritating to rabbit respiratory systems and yummy looking to some rabbits. Try using hay, or, if you are concerned about odor, recycled newspaper litter. Both are safe for your bunny and easy to clean up for you!

The Many Colors of Urine



Normal rabbit urine



Red urine



White urine

Rabbit urine always contains a certain amount of sediments. It can vary in color from

clear to yellow to brown to red and is usually a result of what your rabbit is eating. If you are seeing or thick urine on a regular basis, bring your bunny in to be checked. Milky urine can be normal, but if this occurs frequently, for long periods of time, or if urine is thick and sludgy, we need to see your bunny. This is generally a sign that there is too much calcium in your rabbit's diet, but before making any changes it is important to see us first.

Behavior

- Growling: grunting or growling means your bunny is not happy about something. It can also be a sign of fear, anger, or stress.
- Crying: sometimes your bunny may let out a little cry, whine or whimper and then thump their back feet. Something has annoyed or angered her/him.



- Licking: bunny licks are their method of telling you “I like/love you”.
- Screaming: this is the most horrible of bunny noises. It usually means she is scared to death, physically hurt, or dying.
- Flopping: pure form of relaxation.
- Binkying: dancing, hopping high in the air and running around at breakneck speed.
- Thumping: back feet are pounding the floor for several reasons including anger, fear, and danger.
- Chinning: a rabbit will rub their chin over everything to let everyone know that this is mine.

By three to four months rabbits begin to show intense curiosity, hyperactivity and frantic chewing and digging. This is usually when rabbits are at their hormonal “peak”. Coincidentally, this is also about the time that we recommend spaying or neutering. Male rabbits will begin spraying everything with urine while females tend to become aggressive and territorial.

Bunny proofing the area your rabbit can roam is a must. It helps to prevent destruction of your property, protects your rabbit from harm, and provides safe and fun chewing alternatives.

Bonding a bunny to another rabbit is not as easy as you would think. Rabbits are like humans – they need to date before they become mates! During their courtship, they will learn to trust each other and hopefully fall in love.

If you are serious about wanting to introduce two rabbits, please keep in mind that this romance may take months. First meetings can go one of three ways – love at first sight, hatred at first sight or indifference. Sometimes the date may be marked by aggressive behavior; other times they will just sit and stare at each other. It takes patience and a basic understanding of rabbit “social skills” to be able to bond two rabbits.

The House Rabbit Society (www.rabbit.org) has some fabulous advice regarding bonding rabbits. We suggest that you consider your rabbit's personality and ability to adapt to new situations before introducing him to another bun. It is always best to allow your bunny to "pick" his potential mate. Many rescues and shelters will set up "date times" so that your rabbit can speed date his way to a possible partner. Try the Virginia Beach SPCA. They have a Small Mammal Manager who will help you find the perfect partner.

Rabbit Enrichment and Exercise



Providing an appropriate and stimulating environment allows our exotic companion mammal pets to express their full range of natural behaviors and is essential to maintaining good health. Many of these animals live in social groups in the wild and keeping two or more individuals together can greatly improve their quality of life. However, even animals that have been housed together for prolonged periods may become aggressive

towards each other due to competition for preferred foodstuffs or when they reach sexual maturity. In the wild, animals can avoid such aggression by fleeing or hiding. Such opportunities may be much more limited in the domestic environment we provide our pets and must be kept in mind as we design their cages.

Providing multiple hiding places, escape routes, and other upgrades are keys to appropriate cage design. Enclosure size may be less important than the arrangement and complexity of the space. Adding shelves and raised areas will encourage activity and exercise. Tunnels, boxes, and plastic igloos provide complexity to the environment, but make sure they are suitable in size for the species you are housing. Providing multiple nest areas also enhances the environment.

A few more pointers include:

- Grouping many of these animals *before* the onset of sexual maturity helps establish stable social groups as these pets mature.
- Neutering rabbits should be considered to prevent fighting.
- Many small animals scent mark extensively, and if cage mates are separated during cage cleaning, and returned to a clean cage, they may fight. Avoid by placing small quantities of old bedding into the cleaned cage, or perhaps not clean as rigorously.

- Feeding an appropriate diet contributes both to maintaining good health and provides a source of environmental enrichment.

Common Pet Rabbit Toxins

Pesticides – these are a common source of intoxication for domestic pets and exotic pets alike. Organophosphates, Pyrethrins, and Metaldehyde are all examples of toxic to rabbit pesticides.

Always check with us before you use/put any type of pesticides around/near your rabbit's environment.

Rodenticides are rarely ingested by exotic animals. There are three main classes: vitamin K1 blockers, bromethalin, and vitamin D3 amplifiers. It is important to differentiate between these three types for treatment, so if you suspect that your pet has eaten one of these compounds, please make every effort to bring in the box, or otherwise identify the compound.

Fipronil – this compound is the main ingredient of “Frontline”, “Parastar”, “Certifect”, and “PetArmor” flea and tick preventative product lines. While it is safe for most companion pet animals, it is highly toxic to rabbits, fringe-toed lizards (*Uma* spp.), fish, and aquatic invertebrates. Clinical signs include muscle twitching, tremors, convulsions +/- excitement, or lethargy and ataxia. Sudden death may occur as well. Onset is usually quick (< 7 hours), and if caught and diagnosed in time, this may be treated with supportive care and anti-seizure medications, such as diazepam or midazolam. Muscle relaxants may help as well.

Contact us before using any flea control products!

Lead is absorbed in the gastrointestinal tract and stored in bone and soft tissues. Lead is absorbed more efficiently if the patient is young, or deficient in calcium, zinc, or iron. Common sources include, but are not limited to weights (curtain, fishing, diving, aquarium plant), some aquarium thermometers, bells with lead clappers, shotgun pellets, batteries, computer USB cables, solder, stained glass, paints, (even some “lead-free” paints have lead drying agents), galvanized wire or mesh, glazed ceramics, linoleum, costume jewelry, mirror backing, and seeds for planting (coated with lead arsenate).

Further Reading: For more information on rabbits we recommend the following:

Pet Care Veterinary Hospital: <https://www.petcarevb.com/>

Friends of Rabbits: <https://www.friendsofrabbits.org/>

House Rabbit Society: <https://rabbit.org/>

Oxbow Animal Health: <http://www.oxbowanimalhealth.com/>

Small Pet Select: <https://shop.smallpetselect.com/>

Rabbit Hole Hay: <https://www.rabbitholehay.com/>