

# RABBIT CARE SHEET



## BIOLOGY

Rabbits belong to the order Lagomorpha. All domestic breeds of rabbit seen today originated from the Old World or European rabbit (*Oryctolagus cuniculus*).<sup>6</sup> Rabbits are relatively small, and range in size from 2-17 pounds depending on the breed.<sup>3</sup> The longest-lived captive rabbit on record lived to be 18 years of age,<sup>1</sup> and the longest lifespan recorded for a female wild European rabbit is 7.6 years.<sup>4</sup>

Smaller breeds of rabbits tend to become reproductively mature at 4-5 months, and larger breeds at 5-8 months.<sup>6</sup> Small breeds tend to have smaller litters of 4-5 young, while larger breeds can have litters of 8-12.<sup>6</sup> As female rabbits prepare to give birth (kindling), they will usually pull significant amounts of hair from their side, abdomen, and dewlap, which is often a surprise for the first-time owner. It is also important to know that rabbits only nurse the kits 1-2 times daily, for roughly 3-5 minutes. People are often concerned the mother is not feeding the kits frequently enough, which is most often not the case.

- Lifespan: 8-12 years average
- Adult Weight: 2-17 pounds
- Sexual Maturity:  
Males: 5-7 months;  
Females: 4-6 months
- Gestation: 30-32 days
- Litter Size: 4-12

## BEHAVIOR

- Rabbits are highly social animals, and communal housing is encouraged
- Neutered rabbits tend to get along the best in group situations
- Rabbits should be introduced gradually, and with direct supervision
- Rabbits can cohabitate with other animals, but be especially cautious when initially introducing them to cats, dogs, or ferrets
- Do not house rabbits and guinea pigs together

Rabbits are highly social animals, and will live in large, stable, groups in the wild with hundreds of individuals, which makes group housing encouraged.<sup>3,6</sup> Neutered animals tend to interact together the best in a group situation. Not all rabbits get along, so it is important to supervise the initial interactions very closely as rabbits have been known to inflict serious injuries upon others. Introductions should generally be gradual, and it is often best to let them meet with a baby gate in place at first to limit any possible direct aggression. Rabbits can learn to cohabitate with other species, but caution is necessary when interacting with dogs, cats, and ferrets. Rabbits and guinea pigs should not be housed together, as rabbits are frequent carriers of the bacterium *Bordetella bronchiseptica*, which can cause severe disease in the guinea pig.

# DIET

Feeding an appropriate diet to your rabbit is one of the most important aspects of care, and plays a key role in overall health, disease prevention, and longevity.<sup>5</sup> In the case of rabbits, the ideal diet would consist of multiple grasses, forbs (herbaceous flowering plants), herbs, and leaves.<sup>2</sup> For most of us it is not practical to provide large pastures composed of a diversity of plant species, or to collect grasses, forbs, herbs, and leaves on a daily basis, so we must provide a reasonable alternative. The ideal diet for rabbits is composed of a variety of hays, leafy green vegetables, and a forage-based pellet to provide essential vitamins and trace minerals.<sup>2</sup> The above diet provides high levels of complex carbohydrates (fiber), which is very important for adequate dental wear, gastrointestinal motility, weight control, and even behavioral enrichment.<sup>2</sup> Fruit and seed mix diets provide very high levels of sugars, which commonly lead to gastrointestinal problems, and should be avoided.

Rabbit owners should provide more than one type of hay if possible. There is much more nutritional diversity in offering two different types of hay, than offering two different fruits or vegetables. Rabbits can tell the difference between hays harvested at different times of day, as the sugar level will increase in the hay from morning to evening.<sup>3</sup> Alfalfa hay is important for rabbits under 6 months of age, and nursing females, but is generally not recommended to be fed otherwise due to the high levels of calcium and protein, which can lead to obesity and potential urinary problems.<sup>2,5</sup>

## **Some Recommended Greens:**

Parsley, Spinach, Kale, Endive, Collards, Mustard, Dandelion, Romaine, Cilantro, Turnip, Basil

- **Rabbits up to 6 months of age** should be provided unlimited amounts of alfalfa and grass hay (timothy, orchard, oat, etc.), a plate of fresh green leafy vegetables daily (approximately the size of the rabbit when loosely piled), and quality alfalfa-based pellets (1/4-1/2 cup per day).
- **Rabbits over 6 months of age** should be provided unlimited amounts of hay (timothy, oat, orchard grass, etc.), a plate of fresh green leafy vegetables daily (approximately the size of the rabbit when loosely piled), and a quality timothy based pellet (about 1 tbsp. for every 2 pounds of rabbit weight) daily.
- Fruits and seed mix diets are not recommended
- Offer more than one type of hay on a routine basis, as it provides greater nutritional diversity, and is also a great source of behavioral enrichment
- Small amounts (no more than 1 tbsp. per 2 pounds of rabbit weight) of apples, pears, carrots, green bell peppers, blueberries, blackberries, raspberries, kiwi, mango, and melon can be offered as treats to help with training and development of the human-pet bond.
- Fresh water should be available at all times.
- Many rabbits prefer drinking from a bowl, and providing a heavy, wide-based bowl may help to promote adequate hydration.

# HOUSING

Wild rabbits live in underground warrens, which are composed of numerous passageways, multiple entrances and exits, and various “rooms” where the rabbits will rest, groom, and consume cecotropes (often referred to as “night feces”).<sup>3</sup> Since provision of a large warren is likely impractical, it is important we do our best to provide the rabbit with an environment that allows the opportunity for natural behaviors when possible. Our goal in creating an environment is to provide adequate space for the rabbit to move and explore, as well as to provide objects to chew, manipulate, and explore.<sup>3</sup> Rabbits can be housed comfortably either indoors or outdoors, but often a combination of both provides the most stimulating environment.

With appropriate planning, rabbits can be provided safe and mentally stimulating environments. Rabbits allowed to roam free in the home should be provided with one cage per rabbit, which should be large enough for the rabbit to stretch out completely when lying on its side.<sup>6</sup> The cage should have a solid flooring (no wire floors!), and plenty of soft substrate (straw or grass hay) should be provided to prevent pododermatitis (problems with the feet). Rabbits need places to hide when they feel scared, and this can be accomplished by placing overturned boxes/containers or pipes throughout the environment.<sup>6</sup> Baskets or boxes full of hay can be provided to allow your rabbit the opportunity to dig, and this is a much better alternative to your couch cushions. Rabbits will often utilize cardboard boxes, paper bags, and wicker huts as resting “rooms”, and if provided enough hay you will often notice rabbits creating resting rooms in their environments.<sup>3</sup> It is extremely important that all cords in the environment are wrapped in duct tape, run through PVC piping, or placed out of reach. All toxic houseplants must be out of reach, as these can be a common cause for intoxication in the home.<sup>3,6</sup>

When housing rabbits outdoors it is very important that the environment be safe from predators, escape proof (digging, climbing, and jumping), and provides shade and shelter.<sup>6</sup> Straw, grass hay, or natural lawn (free of pesticides and herbicides) are all reasonable choices for cage flooring. The enclosure should allow the rabbit to take at least 3 full hops in a forward direction, which is generally around 6 feet for the average rabbit.<sup>6</sup> Fleas, mosquitos, and other flies can be a problem for the outdoor rabbit, so mosquito netting or other protection should be provided. Rabbits are much more cold tolerant than heat tolerant, and you should consider bringing your rabbit into a cooler environment when temperatures exceed 82F.<sup>6</sup> Outdoor rabbits must also be provided safe places to hide when they feel threatened.

- The minimum enclosure space provided should allow the rabbit to take at least 3 full hops in a forward direction, which is generally around 6 feet
- “Rabbit proofing” the environment is essential to prevent escape or injury
- Electrical cords should be wrapped in duct tape, run through PVC piping, or placed out of reach of inquisitive rabbits.
- Poisonous plants must be placed out of reach of rabbits
- Baskets or boxes full of hay can be provided to allow your rabbit the opportunity to dig
- Straw and grass hay make a nice soft floor substrate to help prevent foot problems
- Rabbits can develop heat stroke in temperatures above 82F
- Outdoor rabbits must be protected from fleas and other insects

# LITTER BOX TRAINING

Rabbits are generally easy to litter box train when it is done properly. Cats are easy to litter box train because of their natural desire to dig and bury their excrement.<sup>3</sup> Rabbits do not dig and bury their excrement, but they do have a natural preference to use the same location daily.<sup>3</sup> Prior to bringing the rabbit home it is important to decide on the general location of the litter box (room, cage). The rabbit is initially confined to the area, and once the rabbit has decided upon on the specific location to urinate and defecate, the litter box should be moved to that site. Once the rabbit is using the litter box consistently it is fine to give the rabbit more room to explore. If another box is needed it is best to place some of the rabbit's excrement in the box at the second location, which will often stimulate use.<sup>3</sup>

Rabbits are often seen resting or eating while in the litter box. It is important to use safe litters, as your rabbit will likely ingest some. Clumping litters commonly used for cats are not safe for

rabbits, as they can clump in the stomach or intestines of the rabbit.<sup>3</sup> Pine, cedar shavings, or litters with deodorizing crystals are all considered unsafe for rabbits.<sup>3</sup> Litters generally considered safe are aspen bark, compressed sawdust, straw, hay, peat moss, litter made from oats or alfalfa, and litter made from paper products.<sup>3</sup> Fresh hay should also be provided in the litter box, as many rabbits enjoy eating while using the litter box.

Your rabbit may occasionally not use the litter box, and that is considered normal. The rabbit may defecate small, firm fecal pellets outside of the box if it is not changed frequently enough, or if the rabbit is startled.<sup>3</sup> To keep your rabbit using the box it is best to completely change out the litter box contents every 1-2 days. Occasionally, your rabbit may decide it would like to move its litter box to a new location, and if possible, it is best to respect your rabbit's wishes.

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- Rabbits can be litter box trained relatively easily
  - **Safe litter:** aspen bark, compressed sawdust, straw, hay, peat moss, litter made from oats or alfalfa, and litter made from paper products
  - **Unsafe litter:** clumping cat litters, pine, cedar shavings, or litters with deodorizing crystals
  - The litter box should be changed completely every 1-2 days
  - Place fresh hay in the litter box as rabbits often like to eat while there
  - It is normal to find small amounts of firm stool outside of the litter box on occasion, and you should never scold or reprimand your rabbit for an accident

# ENRICHMENT

The days of keeping rabbits in small metal enclosures with no room for exercise, and no mental stimulation are long gone. Rabbits must be provided with environmental enrichment in the form of toys, digging sites, different types of hays, large areas in which to play, and even other rabbits for companionship.

Rabbits need plenty of exercise each day to help prevent obesity, problems with the feet, and even sludge development in the bladder.<sup>3,6</sup> Indoor rabbits should be provided access to one or more rooms of the house for at least part of the day. A large outdoor enclosure can be utilized to allow your rabbit to dig, exercise, and get exposure to natural sunlight. Rabbits can be trained to accept a harness, and this can also be a great source of exercise.

There are numerous toys on the market that are suitable for rabbits. Paper bags, wicker toys, and grass-based toys are generally safe for rabbits. You can hide hay in toilet paper rolls, or hide pellets in a cardboard egg carton. A basket or box full of hay can allow the rabbit the opportunity to dig.

Interacting with your rabbit can also provide an excellent source of enrichment. Many rabbits will become interactive members of the family. Make sure to socialize your rabbits to humans and other rabbits from an early age.<sup>3</sup> Many rabbits do not enjoy being picked up (even when comfortable with you), but when you must, it is important that you carry it in a way that provides adequate support for the whole body. Having more than one rabbit can also provide a playmate, and partner for grooming activities.<sup>3</sup>

- Allow your rabbit to socialize with humans and other rabbits from a young age
- Consider having more than one rabbit to provide your rabbit with a playmate and grooming partner
- Rabbits need plenty of exercise each day to help prevent obesity, problems with the feet, and even sludge development in the bladder
- Provide appropriate items to chew such as chew sticks, wicker, paper, and grass-based toys.
- Provide baskets or boxes full of hay, or natural substrate (hay, straw, lawn) for your rabbit to dig
- Provide a protected (predators, insects, and weather) outdoor environment for your rabbit to promote exercise, natural grazing, and exposure to natural sunlight
- Consider leash training your rabbit

# RECOMMENDED VETERINARY CARE

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With proper care your rabbit will be a healthy, and long-lived member of the family. It is important to develop a good relationship with a veterinarian who is experienced with rabbit care. Rabbits are designed to hide signs of illness, so it is important to contact your veterinarian immediately if it is acting abnormal, or has not eaten in longer than 12 hours. The following are the recommendations of Ohana Animal Hospital for the general care of your rabbit.

- Complete physical examination every 6-12 months
- Make sure that you consult a veterinarian with experience treating rabbits if you have any concerns about your rabbit's health
- A fecal examination should be performed for any newly acquired rabbits, or yearly for outdoor rabbits
- Nail trims as needed, if you cannot do this at home
- Female rabbits should be spayed at roughly 4-6 months to prevent uterine cancer
- Male rabbits should be neutered between 4-6 months to decrease urine marking
- Your rabbit should have regular dental exams to evaluate for abnormal wear of the teeth, spurs, or other abnormalities
- Yearly blood work for rabbits over 3 years of age
- If your rabbit has not eaten in over 12 hours call your veterinarian immediately!

## REFERENCES

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