

GUINEA PIG CARE SHEET



- Lifespan: 5-6 years average
- Adult Weight: 1.5-2.7 pounds
- Sexual Maturity:
Males: 3 months;
Females: 2 months
- Gestation: 59-72 days (average 68 days)
- Litter Size: 1-13 (2-4 average)
- Age at weaning: 2-3 weeks

BIOLOGY

Guinea pigs (*Cavia porcellus*) are hystrichomorph rodents found in areas of Venezuela, Colombia, Brazil, Paraguay, Peru, and Northern Argentina, where they inhabit grasslands, the forest edge, swamps, and rocky crevices.^{2,4} They are small, and range in size from 1.5-2.7 pounds (with males being larger than females),⁶ and generally have a lifespan of 5-6 years as pets.⁴

Guinea pigs become reproductively mature at a very young age. Males can breed as early as 3 months, and females can breed as early as 2 months of age.⁴ Females enter estrus for approximately 8hrs, every 13-24 days, and produce up to 4 litters per year.² Litter sizes vary between 1-13, with 2-4 being the most common.⁴ Guinea pigs bred for the first time after 7-8 months of age may have difficulty delivering the pups, and discussion with your veterinarian is very important. Pups are born with their eyes open, they are fully furred, and they are able to eat solid food within a few days. Although pups can eat solid food almost immediately, it appears that pups in semi-naturalistic outdoor enclosures do not begin to eat solid food until day 4.² Pups are normally weaned by 2-3 weeks of age.

BEHAVIOR

Guinea pigs are highly social, and live in small groups (5-10 individuals) in the wild. Isolation studies show that guinea pigs are less stressed in new situations and environments when they have a companion,² which means that group housing is preferred if possible.

Aggression is not common between guinea pigs, but when present is normally between same-sex adults, so always introduce new animals gradually and under direct supervision. Guinea pigs often forage in mixed sex and age groups without complication, but it does appear to help create stable dominance hierarchies if individual shelters are provided for each animal in the environment.²

Guinea pigs are a prey species, and they can be a bit nervous at times. It is important to limit their exposure to noise and potential predators (dogs, cats, ferrets, birds of prey). When

BEHAVIOR, CONTINUED

scared they either freeze in one spot, or run at high speed to escape the source of perceived danger. Many guinea pig trauma cases are the result of nervous guinea pigs jumping from the arms of their owners when frightened. The enclosure should be placed in a quiet environment, as constant exposure to loud noise can cause unwanted stress.²

Guinea pigs are generally very friendly and docile, especially if handled frequently while young. It is rare for a pet guinea pig to bite or scratch, which makes them excellent family pets. Guinea pigs do tend to be very vocal, and have many specific recognized noises (chut, purr, chatter, whine, low whistle, squeal, scream, tweet, drr, and chirrup).² Anyone who has owned a guinea pig is very familiar with the excited squeal of a hungry guinea pig at feeding time.

- Guinea pigs are highly social animals, and group housing is recommended
- Although aggression is rare, guinea pigs should be introduced gradually, and under direct supervision
- Individual shelters (hide box) should be provided for each animal
- Guinea pigs are generally very docile, and rarely bite or scratch
- Guinea pigs vocalize often, using a variety of squeals, purrs, and other noises
- Guinea pigs should be housed in a quiet location away from predators

DIET

Feeding an appropriate diet to your guinea pig is one of the most important aspects of care, and plays a key role in overall health, disease prevention, and longevity. In the case of guinea pigs, the ideal diet would consist of multiple short grasses, forbs (herbaceous flowering plants), herbs, bark, and leaves.^{1,2,3} 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, bark, and leaves on a daily basis, so we must provide a reasonable alternative.

Guinea pig diets should be composed of a variety of hays, leafy green vegetables, a

high quality guinea-pig pellet, and a source of daily vitamin C.³ This diet provides high levels of complex carbohydrates (fiber), which is very important for adequate dental wear, gastrointestinal motility, weight control, and even behavioral enrichment.¹ Fruit and seed mix diets provide very high levels of sugars, which commonly lead to gastrointestinal problems, and should be avoided.

(continued next page)

DIET, CONTINUED

Guinea pig 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. Alfalfa hay is important for juvenile, pregnant, and nursing females, but is generally not recommended to be fed otherwise due to the high levels of calcium and protein.^{3,4}

Guinea pigs, like humans, require a daily source of vitamin C. Guinea pigs lack the enzyme L-gulonolactone, which is involved in the production of vitamin C from glucose.⁴ Vitamin C should be provided at a range of 200mg/kg diet, or 10-20mg/guinea pig/day.³ High quality guinea pig pellets now provide a stable source of vitamin C, at appropriate levels, which should not degrade over time if stored correctly. Other good sources of vitamin C include: red, green, orange, and yellow bell peppers, kale, parsley, turnip greens, dandelion greens, mustard greens, collard greens, kiwi, oranges, and broccoli. Vitamin C can be provided in the drinking water at 1 gram/L, but levels decrease rapidly, so the water must be changed daily.⁴

Guinea pigs develop food preferences early in life. It is not uncommon for a guinea pig to stop eating if there is a change in type or presentation of diet.⁴ Young guinea pigs should be exposed to a variety of pellets and vegetables when young to ensure that they are accustomed to variety.

- **Guinea pigs up to 6 months of age** should be provided unlimited amounts of alfalfa and grass hay (timothy, orchard, oat, etc.), fresh green leafy vegetables daily (approximately the size of the guinea pig when loosely piled), quality alfalfa-based pellets with a stable source of vitamin C (approximately 1/8 cup daily), and additional sources of vitamin C (listed below).
- **Guinea Pigs over 6 months of age** should be provided unlimited amounts of hay (timothy, oat, orchard grass, etc.), fresh green leafy vegetables daily (approximately the size of the guinea when loosely piled), and a quality timothy-based pellet (approximately 1/8 cup daily) daily, and additional sources of vitamin C (listed below).
- **Guinea pigs require a daily source of vitamin C.** You can increase vitamin C consumption by offering red, green, yellow, and orange bell peppers, kale, parsley, turnip greens, dandelion greens, mustard greens, collard greens, kiwi, oranges, and broccoli.
- Guinea pigs develop food preferences early in life, so should be exposed to a variety of pellets and vegetables when young
- Fruit 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
- Fresh water should be available at all times

HOUSING

Information on how to best simulate the natural environment for guinea pigs in captivity is lacking. Much information regarding the captive housing of guinea pigs comes from the laboratory setting, and will likely change as more people focus on enrichment. You can easily care for a guinea pig by following the minimum cage requirements written below, but it is worth trying to simulate a more natural environment whenever possible.

It is important to provide a well-ventilated cage with plastic, metal or wire sides, and a solid bottom to prevent foot problems. Cages with wire floors result in more foot and leg injuries, and should be avoided.⁴ Cages with solid sides (aquariums) should be avoided, as they do not provide adequate ventilation. The cage should be at least 3' x 2', but larger cages should be provided when possible, or when multiple animals are housed together. Guinea pigs do not climb or jump walls, so the wall height does not need to be taller than 10".⁴ Cages should be placed in quiet areas out of direct sunlight, and in an area where the temperature is between 65F-79F.⁴ Guinea pigs are very sensitive to extreme temperatures, and temperatures above 80F should be avoided. A thick layer of cellulose fiber bedding is best, although recycled newspaper litter, wood shavings (no cedar or pine shavings though!), shredded paper, and straw can also be used safely.⁴ One hide box should be provided for each guinea pig, as it helps to make them feel more comfortable and secure.

Home ranges for males in the wild are around 8,120ft², and around 5,167ft² for females.² Guinea pigs spend much of the day foraging near sites of shelter, and will frequently interrupt feeding sessions to run for cover, generally only seeking refuge if a predator comes near.² This information would seem to make a case for providing larger cages if possible, or providing protected and supervised time in larger outdoor enclosures when possible. It also seems reasonable to attempt to create a larger area for natural grazing behaviors, with multiple hide spots located nearby to allow running for cover when desired. Another consideration to increase floor space is to provide multiple levels in the enclosure, which can be more reasonable when space is limited.

- The minimum enclosure size for one guinea pig is 3' x 2', but larger cages should be provided when housing multiple guinea pigs in the same enclosure
- Cages should have a solid bottom, as wire floors result in more foot and leg injuries
- Cages with solid sides (aquariums) should not be used as they impair ventilation
- Cages should be placed in quiet areas out of direct sunlight
- Cage temperatures should be maintained between 65-79F, as guinea pigs can easily overheat in temperatures above 80F
- Cellulose fiber bedding, recycled newspaper, shredded paper, wood shavings (no pine or cedar!), or straw should be used as cage bedding
- One hide box should be provided for each guinea pig in the enclosure
- Soiled bedding should be changed daily
- Consider larger cages when possible, and simulating large forage areas with nearby hide spots may help create a more natural environment

ENRICHMENT

Guinea pigs must be provided with environmental enrichment in the form of toys, different types of hays, large areas in which to play and forage, and even other guinea pigs for companionship.

Guinea pigs need plenty of exercise each day to help prevent obesity, and problems with the feet. The minimum requirements for cage size are 3' x 2', but the home ranges of wild guinea pigs indicate larger environments may be more reasonable if possible. Multi-level enclosures allow for the provision of more floor space, without using an entire room to house your guinea pig. A larger outdoor enclosure should also be considered to allow for supervised exercise, play, and foraging activities when possible.

There are numerous toys on the market that are suitable for guinea pigs. Paper bags, wicker toys, and grass-based toys are generally safe for guinea pigs. You can hide hay in toilet paper rolls, or hide pellets in a cardboard egg carton. It is ok to get creative, and see what your guinea pig enjoys.

Interacting with your guinea pig can also provide an excellent source of enrichment. Many guinea pigs will become interactive members of the family. Make sure to socialize your guinea pigs to humans and other guinea pigs from an early age.² Many guinea pigs 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.

- Allow your guinea pig to socialize with humans and other guinea pigs from a young age
- Consider having more than one guinea pig to provide companionship
- Guinea pigs need plenty of exercise each day to help prevent obesity, and problems with the feet
- Provide appropriate items to chew such as chew sticks, wicker, paper, and grass-based toys.
- Provide a protected outdoor environment (from predators, insects, and weather) for your guinea pig to promote exercise, natural grazing, and exposure to natural sunlight when possible

RECOMMENDED VETERINARY CARE

With proper care your guinea pig 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 guinea pig care. Guinea pigs 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 guinea pig.

- Complete physical examination every 6-12 months
- Make sure that you consult a veterinarian with experience treating guinea pigs if you have any concerns about your guinea pig's health
- A fecal examination should be performed for any newly acquired guinea pig
- Nail trims as needed, if you cannot do this at home
- Discuss spaying or neutering with your veterinarian
- If your guinea pig has not eaten in over 12 hours call your veterinarian immediately!

REFERENCES

1. Clauss M. 2012. Clinical technique: feeding hay to rabbits and rodents. *J Exotic Pet Med* 21:80–86.
2. Crowell-Davis, S. Guinea Pigs. In: Tynes, V. eds. *Behavior of Exotic Pets*. Chinchester, West Sussex: Wiley-Blackwell; 2010: 78-87.
3. Grant K. Rodent Nutrition: Digestive Comparisons of Four Common Rodent Species. *Vet Clin North Am Exot Anim Pract.* 2014;17:471-483
4. Quesenberry, K, Donnely TM, Mans C. Biology, Husbandry, and Clinical Techniques of Guinea Pigs and Chinchillas: basic anatomy, physiology, and husbandry. In: Quesenberry K, Carpenter J, eds. *Ferrets, Rabbits and Rodents: Clinical Medicine and Surgery*. 3rd ed. Philadelphia, PA: Elsevier; 2012: 279-294.



Zachary Steffes, DVM

2844 Las Positas Road, Livermore, CA 94551

(925) 394-4990 - Fax: (925) 394-7330

ohanaanimalhospital@gmail.com

www.theohanaanimalhospital.com