

Basic Care of Small Rodents

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Special points of interest:

- Hamsters should be housed separately
- Due to their short life expectancy, all small rodents should be examined by a veterinarian 3-4 times yearly
- Seeds are inadequate diets
- Exercise is important for both physical and psychological well-being
- Males and females should be separated to prevent mating

HAMSTERS

Hamsters (*Mesocricetus auratus*) are short tailed rodents with large cheek pouches. The Syrian hamster's (golden hamster) wild habitat extends through the Middle East and South-eastern Europe. In 1930, a litter of eight baby hamsters was taken to Israel and raised as research animals. Virtually all do-

mesticated hamsters sold in the pet trade and research are descendents of three of the survivors of that litter. Hamsters were first introduced to the United States in 1938. Since their domestication, several color and hair coat varieties of the Syrian hamster have arisen through selective

breeding. The three basic groups that now exist include the common "golden" hamster, colored short-haired "fancy" hamster, and long-haired "teddy bear" hamster. On occasion, one may encounter other species of hamsters, but these are much less common than the Syrian hamster. The

GERBILS

The Mongolian gerbil (*Meriones unguiculatus*) is a small rodent native to the desert regions of Mongolian and northeastern China. Gerbils are burrowing, social animals which are active both during the day and

night. Their burrows are composed of elaborate tunnels with multiple entrances, nesting rooms, and food compartments. The native color variety is agouti, mixed brown, with dark pigmented skin, light brown to white chest and

abdomen, and darker back coat. Other color varieties that exist include black, white, and cinnamon. Gerbils have a marking scent gland that appears as a tan colored, hairless area in the middle of their abdomen. The gerbil is a curious, friendly, and nearly odorless rodent,

RATS AND MICE

Rats, despite their negative connotations, are intelligent, social pets. Pet rats are domesticated versions of the Norway rat (*Rattus norvegicus*). Originally

domesticated as a research animal, the rat has a very loyal following of pet rat owners. Numerous strains of laboratory rats have been developed and each has somewhat different dis-

ease susceptibility. The pet rat is usually a mixture of several types and may have had other mutations in their genetic makeup. Pet rats live only 1.5-3 years.

In general, mice, rats, and gerbils can be housed with others of their species, but hamsters will not tolerate the presence of others.



Seed diets are inadequate in many nutrients and are extremely high in fat

Housing

Rodents should be housed in plastic, metal, or glass cages. Although wire bottomed cages are often used in the laboratory setting, these animals are much more comfortable with a solid bottom lined with shavings or pelleted litter. Make sure that glass and plastic enclosures have adequate ventilation. In addition, make sure that the enclosure is escape proof. Bedding must be clean, non-toxic, absorbent, and relatively dust free.

Shredded paper, recycled newspaper products (carefresh for example), pine shavings, and processed corncob are acceptable beddings. Cedar chips and chlorophyll scented shavings should be avoided because of association with respiratory and liver disease. At least 1-2 inches of bedding should be provided to allow for normal burrowing behavior. The litter should be changed on a regular basis. Depending on the size of the cage and the number of animals within the cage, the litter will require

changing one to two times weekly. An exception to this cleaning schedule is when newborn babies are present, then wait until they are at least 2 weeks old.

Exercise is important for both physical and psychological well-being. There are many types of exercise wheels, balls, and toys available. Supervised activity outside the cage is encouraged as well.

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Nutrition

In the wild, these animals feed on leaves, seeds, roots, fruits, and insects. Standard lab rodent pellets or blocks are available which meet the needs of these species very effectively. Seed diets are inadequate in many nutrients and are extremely high in fat. These should be given in very small quantities. Other supplements to the diet

include sugarless breakfast cereals, whole wheat breads, pasta, cheese, cooked lean meats, fresh fruits and vegetables; all fed in moderation. On average, an adult mouse will consume about 15 grams of food per 100 grams of body weight daily. Comparatively, an adult rat will consume approximately 10 grams of food per 100 grams of body weight.

Hamsters eat approximately 12 grams of food daily. Gerbils eat approximately 5-8 grams of food daily.

Water is best provided in sipper tube bottles. These will remain cleaner and will not be dumped or filled with litter as open dishes invariably are. The nozzle should be frequently checked to

Be careful when approaching a nervous or frightened pet. Never pull the tip of the tail because the skin can easily be pulled off.

Handling

Pet rodents become tame and seldom bite when properly restrained and accustomed to handling. Be careful, however, when approaching a nervous or frightened pet. Also, it is best not to disturb a sleeping animal because most are usually quite cranky when awakened. For any rodent, never pull on the tip of the tail because the skin over the end of the tail can easily be pulled off. If this happens, seek veterinary care immediately.

Most pet mice and rats enjoy being handled when away from their cage. Rats and mice can be easily picked up by scooping them into a can or cupped hands. They then can be moved out of their territory to a neutral area. Some rats can be territorial of their cage, and these should be coaxed out of their cage before being handled. Also, rats do not respond well to scruffing by the nape of the neck. Mice can

also be lifted by grasping the base of the tail. Mice housed individually may be more aggressive and apprehensive than those housed in groups.

The gerbil's natural curiosity and friendly disposition makes it fairly easy to handle. Most gerbils will approach a hand introduced into their cage and can be easily scooped into the palm of the hand or picked up by grasping the base of the tail.



Don't let the sun set on a sick rodent.

Veterinary Care

Early detection and treatment of diseases is critical. Small "prey" species try to hide any signs of illness or weakness as a mechanism to prevent

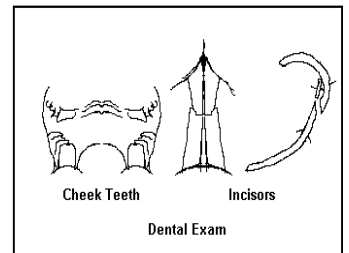
predation. In captivity, this trait leads to presentation late in the course of the disease. A rodent that looks sick is often very sick. A "wait and see" ap-

proach is very dangerous in exotic animals. Rapid diagnosis and treatment is essential. Because of the short life expectancy, small

Teeth and Tears

Rodent incisors are orange colored and open rooted (which means they grow continuously). The lower teeth are about three times as long as the uppers. They should not be trimmed.

Rats secrete red tears from a gland behind their eyes. This is normal secretion of porphyrin pigments produced by the Harderian gland.



These tears are often mistaken for blood. They usually appear during stressful situa-

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**Breeding will occur if males
and females are not kept
apart.**

Breeding

Rodents are fairly easy to sex. Neonatal male rodents can be distinguished from females by a greater distance between the anus and urinary opening. Males have a one and a half greater distance between the anal opening and urogenital opening. Sexually mature males also exhibit a prominent scrotum. Females can be identified by their prominent bilateral rows of nipples.

Adult male mice will often fight when caged together, especially in the presence of females. Therefore, a single male mouse should be housed with one or more mature females. Rats, on the other hand, usually can

Our Mission

All Creatures Animal Hospital is dedicated to providing progressive medicine in a caring environment for pets of all species. Through preventative medicine, client education, professional development of our staff, and advanced medical and surgical techniques, we hope to foster a strong and lasting bond with clients and their pets.

be caged in mixed groups of males and females without aggression. Female mice become sexually mature at about 50 days of age. Female rats become sexually mature at about 65 days of age. Both have an estrous ("heat") cycle every 4-5 days throughout the year, unless they are bred.

All rodents can be bred after giving birth. However, male rats, mice, and hamsters should be removed prior to the female giving birth to prevent injury to the pups by the male. Gestation lasts approximately 3 weeks. Litter size averages 10 to 12 for mice and 6-12 for rats. The female and her litter should not be disturbed for the first few days after birth to minimize injury or abandonment by the

mother. Both rats and mice wean at about 3 weeks of age.

Gerbils should be paired by the time they reach sexual maturity, at 7-8 weeks of age. Life long, monogamous pairs typically form. The first mating typically occurs at about 10-12 weeks of age. There is no need to remove the male following breeding. The male gerbil participates in the care of the young. The gestation period is 24-26 days on average. Litter size averages 4-6 pups. Weaning occurs by the 3 weeks of age.

Male hamsters become sexually mature at 10-14 weeks of age. Females become sexually mature at 6-10 weeks of age.