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PET RODENTS

Pet rodents including hamsters, mice, and gerbils are very popular pets. They make good first pets for young children and as a rule, require minimal care. Compared to dogs and cats, they have a shorter life span (2-5 years depending on the species); young children should be told this so that the "sudden death" of a 3 year old pet isn't unexpected. As with any pet they do occasionally get sick, and their illnesses are often severe. All pet rodents should be examined by a veterinarian within 48 hours of purchase. This "new pet" is critical to detect signs of disease and help new pet owners get off on the right foot. So many problems are caused by misinformation; the first veterinary visit can help prevent well-intentioned owners from doing the wrong thing and ultimately contributing to the pet's early death.

General Information for All Species

Proper nutrition is important to maintaining the health of your gerbil. Pelleted or block foods such as Oxbow pellets are the most nutritionally balanced diets. The diets containing seeds and nuts ARE NOT RECOMMENDED. Seed based diets are not nutritionally balanced as they are often deficient in protein, vitamins, and minerals while they have too much fat. Fresh, well-cleaned vegetables and occasionally a small amount of non-citrus fruits can be offered. Leafy green vegetables (not iceberg lettuce or celery) can be offered, as well as yellow and orange vegetables. The total daily amount of these "people foods" should not run more than 10% of the diet. Thus, the pets should eat mainly pellets (90% of the diet, 5-10% vegetables and fruits. Many owners offer the food in heavy, spill-proof ceramic crocks, although feeders can be purchased and attached to the cage. Water bottles with sipper tubes should be used to provide clean water at all times. The water should be replaced daily and the tubes (specifically the end the pet drinks from) inspected daily for blockages that can develop if the pet spits food into the sipper tube. Bowls for water are not recommended because they are too easy to tip over and get soiled easily.

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Housing needs to be sturdy, escape proof, and easy to clean. ALL PET RODENTS ARE MASTERS OF ESCAPE. They are also very diligent chewers, and will chew out of soft plastic or wood containers. Aquariums with wire covers, hard plastic Habitrail-type cages, or wire cages can all be used. Whatever is used, it needs to be kept very clean. The cage and accessories should be cleaned a minimum of twice weekly, except when babies are present. Rodents produce very concentrated urine, which is high in ammonia. If it is not cleaned out regularly, the ammonia levels can irritate the respiratory tract, causing discomfort and leading to secondary infections. When babies are present, it is best to wait until they are at least 10 days old. Cases should be sanitized with hot water and non-toxic disinfectant or detergent, then thoroughly rinsed. Water bottles and food dishes should be disinfected daily. (A 1:10 solution of bleach is an appropriate disinfectant for cleaning cages and accessories.) *The species specific housing needs are listed below.*

Bedding can consist of plain newspaper, aspen chips, and recycled paper product beddings. Avoid cedar or pine shavings, these contain oils that are irritating to the skin and eyes, and at high levels are actually toxic to the liver. Avoid sawdust, sand, dirt or corncob litter. Corncob litter can harbor fungal contaminants, and cat litter is too dusty and can be a respiratory irritant. A thick layer of bedding should be provided some species enjoy digging and burrowing. Nesting material such as cotton is not recommended because it can cause problems if caught on toes or around the tail.

Toys and objects for psychological stimulation are highly recommended. Small cardboard boxes, paper towel/toilet paper tubes, or PVC pipes can be provided to allow your pet privacy when it chooses. Exercise wheels are helpful to provide an outlet for energy. The solid plastic ones are preferable to wire ones. It is too easy for rodents to get injured in the wire or "open track" exercise wheels. Chew toys can also be offered to help prevent overgrown incisors; anything suited for dogs, such as nylon chew or well-boiled meat bones, are fine. Wooden blocks or sticks intended for rodent chewing are also helpful but expect that most objects in the cage that the rodent can reach will be chewed on eventually.

SPECIES SPECIFIC INFORMATION

Gerbils (*Meriones unguiculatus*) are small, shorthaired rodents that originated in the deserts of Mongolia and southeastern China. They are gentle, curious creatures that make good pets. Their average lifespan is 3-4 years. Gerbils reach sexual maturity at about two and a half months of age. They are monogamous, and normally form breeding pairs at or just before puberty. It is important to introduce animals at a fairly young age if they are to be kept together. Older animals may often be aggressive with other unfamiliar gerbils. If you do not want to breed your gerbils, same sex pairs can be kept together peacefully if they are introduced while young. Since gerbils are desert animals, they have a very low water requirement and urinate in small amounts.

Pregnancy last 24-26 days, with an average litter of 3-7 pups. The pregnant mother should be provided with a quiet area with a small box for delivery. Shredded tissues make good bedding. The mother nurses the pups for 20-26 days. Unlike other rodents, the male is not usually aggressive with the pups, and can often be left in the cage with the litter. Do not handle the newborn pups for the first week of life. All disturbances should be kept to a minimum. Stressed mother gerbils have been known to kill and eat their young.

Hamsters (*Mesocricetus auratus*), the most common being the golden hamster, are nocturnal rodents, meaning they are most active at night and sleep the majority of the day. In the wild, hamsters spend most of the day in tunnels to avoid the sunlight. Their wild habitat extends through the Middle East and Southeastern Europe. They have large cheek pouches and short stubby tails. Their cheek pouches are used to transport and store food and baby hamsters. Their average life span is 2-3 years. Because of their nocturnal habits, they can be somewhat aggressive. To prevent bites, it is important to carefully wake them before attempting to pick them up during the day.

All pet hamsters should be housed singly because hamsters fight when housed together. They are sexually mature at about 10 weeks old. Pregnancy lasts 15 to 16 days. After babies are born, do not disturb the mother and young for the first 1-2 weeks after birth. When threatened, many rodent species will kill and eat their young. Young hamsters will begin to eat solid food at about 7-10 days old but are not weaned until 21-25 days. Soaked pellets work well for feeding the babies until they are fully weaned.

Mice (*Mus musculus*) make excellent pets for children if they are cared for properly. Mice are also nocturnal but are more easily roused than hamsters and rarely bite. Mice are very hardy pets and rarely suffer from infectious diseases. The average lifespan is 1-3 years.

Sexually mature mice need to be properly paired to avoid fighting and permit successful mating. Adult male mice often fight when caged together, especially in the presence of females. Therefore, a single male mouse does best when housed with one or more females and females can be housed together without a male. Mice are sexually mature at about 10 weeks old. Pregnancy lasts 19-21 days and it is also important not to disturb baby mice for 1-2 weeks, as with the other pet rodents. Weaning happens at about 21 days.

MEDICAL PROBLEMS

Trauma - Due to their small size and rapid movements, rodents can easily be injured by being dropped or stepped on. Spinal trauma, fractures, and internal injuries are often the result of these mishaps. Any traumatized pet rodent should be examined by a veterinarian to check for signs of internal injuries, fractures, or shock.

Tail slip - Another common injury can occur if these small pets are lifted by their tails. The skin of the tail can pull off easily. If this occurs, amputation of the exposed part of the tail is necessary. For this reason, one should never attempt to grab or lift a rodent by its tail.

Epilepsy - One of the most disconcerting problems in gerbils are epileptic seizures. This is a common problem, affecting up to 25% of all gerbils. These seizures usually begin at about 2 months of age. They can range from mild "fainting" episodes to violent seizures with considerable thrashing. As distressing as they are to watch, they don't appear to cause any lasting damage in most cases. There is no effective preventative for seizures in gerbils - some of the medications used to treat seizures in other species have even been reported to make them worse in gerbils. If a seizure is prolonged, injectable medications can be given to help stop it, but this is a short acting treatment.

Tumors -Most rodents have a fairly high incidence of tumors. In gerbils, scent gland tumors are the most common type seen. The scent gland is a small, hairless patch of skin under the gerbil's abdomen. In mice, mammary tumors are most common due to the fact that they have mammary glands that extend along their sides and back. Tumors show up there as a thickening or nodular growth. If surgery is performed while the tumor is fairly small, there is a good chance of successful treatment.

Respiratory problems - Rodents are commonly affected by respiratory infections and pneumonia. The symptoms are labored breathing, rough hair coat and weight loss. If antibiotic treatment is started early in the course of such an infection, it is much more likely to be successful. In chronic or severe cases, pulmonary abscesses form and treatment is not likely to be effective.

Enteritis - Intestinal infection or inflammation is a common cause of secondary diarrhea in rodents. This can be related to diet, bacterial infection, or occasionally parasites. The disease is typically fatal in young and stressed rodents. The symptoms include lethargy, ruffled fur, hunched posture, not eating, and diarrhea. Prevention by following good cleaning habits is the key to keeping this problem at bay. Dehydration in these small rodents happens quickly and can result in death so treatment as soon as symptoms appear is critical.

Porphyrin from glands around the eyes causes tears and nasal secretions to appear red. The discolored discharge often happens with stressed or ill rodents. It can be mistaken for blood, which is usually not the case. A physical exam is recommended if this occurs but it is not normally an emergency.

Medical problems are much more likely to be successfully treated if they are detected early so any change in appetite, activity, attitude, etc. should be immediately checked out by a veterinarian. Annual exams are also recommended to detect problems that may not be obvious yet.

References:

- Quesenberry et al: Ferrets, Rabbits, and Rodents 2nd edition, Saunders 2004
- Rick Axelson, DVM & Shawn Messonnier, DVM, Client information sheets, Lifelearn, Inc., 2005

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