

## Handling Hedgehogs and Rabbits

Our topics for this week are:

- The natural behavior and proper handling of hedgehogs
- Rabbit behavior and how to handle rabbits

### AFRICAN PYGMY HEDGEHOGS

African Pygmy Hedgehogs (*Atelerix albiventris*), also called the four-toed or white-bellied hedgehog, are solitary, territorial, nocturnal, insect-eating mammals from the southern Sahara desert that prefer to live alone. Most of their body is covered by 1/4 to 1 inch long spines (quills). The spines are used for defense and to cushion falls. African pygmy hedgehogs are not able to fling their spines. Foot (or hoof)-and-mouth disease is a viral disease of cloven hooved farm animals that has been reported in hedgehogs. Imported hedgehogs can also carry anthrax and could survive as feral animals after escape or abandonment in the southern U.S. As a result, African hedgehogs cannot be imported legally and they cannot be legally owned in some states (California, Hawaii, Arizona, Georgia, Pennsylvania, Maine, and Vermont) and several cities.

### Natural Behavior of African Pygmy Hedgehogs

Hedgehogs in the wild live in a variety of environments, including in rock crevices, brush, or burrows. They are solitary living except at breeding time. Hedgehogs grunt when foraging for food. This hog-like vocalization and a preference to forage along hedgerows were how the small marsupial got its common name. They are sensitive to strange sounds and have an excellent sense of smell which they use in foraging for food, but their vision is weak. Tactile sensations are perceived by touching with their spines and vibrissae (whiskers). Typical vocalizations are grunting, clicking, snorting, and sniffing, but hissing will occur if it feels threatening. Screams occur if distressed. When feeling endangered, they will elevate spines on their forehead and curl into a ball. They are good at digging, climbing, and swimming. They are resistant to many venoms, including those of many snakes, bees, beetles, and spiders. They have small teeth and will bite if irritated or threatened.

Females have five pairs of nipples and a very close AG distance. The male's AG distance is much larger and the penis is located near the mid abdomen.

### Approaching and Catching

Capture of socialized hedgehogs requires slowly scooping it from underneath its belly with one or two hands. Their bellies are covered with soft fur, but their backs are covered with short, prickly spines. If fearful or hungry, hedgehogs may bite.

Socialization of hedgehogs with handlers is best begun when the hedgehog is six to eight weeks of age. Handling young hedgehogs with bare hands will accustom them to the handler's odors. Use of perfumed hand soap or lotions should be avoided. Additional positive conditioning to be handled can be provided with treats, such as mealworms, while the hedgehog is being handled.

Latex or light leather gloves or a towel should be used to handle strange or untrained hedgehogs. Although their spines are not barbed, spines may penetrate a handler's skin. When excited they "anoint" (spread a thick frothy saliva) their spines which can cause skin irritation in some handlers. Gentle handling is needed to prevent them from rolling into a defensive ball and make a hissing sound.

### **Handling for Routine Care and Management**

Properly socialized hedgehogs can be held in cupped hands. Difficult hedgehogs can be scruffed by the skin between the ears. Alternatively, a rear leg can be grasped. Attempts to forcefully uncurl a hedgehog that has rolled into a defensive ball should be avoided due to the risk of injury to the hedgehog.

## **RABBITS**

Rabbits (*Oryctolagus cuniculus*) captured on the Iberian Peninsula of Europe were domesticated by the Phoenicians about 3,000 years ago. By 100 BC, Roman armies kept rabbits as a source of food, introduced them to the British Isles, and confined them in walled pens. If they escaped and became pests, the Romans hunted them with ferrets, which could follow the rabbits into their burrows. Ferreting rabbits is still a means of rabbit hunting in some countries where rabbits burrow and live in groups (warrens), such as the United Kingdom. Rabbits were selectively bred as a farm animal in Europe during the Middle Ages by monks. By the 16<sup>th</sup> century, rabbits were kept as pets in addition to being a source of meat and fur. Ships kept rabbits as a source of fresh meat on voyages. They were introduced to Australia and New Zealand in the mid-19th century where they became feral and a pest for agriculture. Rabbits were raised in the U.S. as a primary source of fresh meat for civilians during World War II.

Rabbits and hares are lagomorphs, not rodents. Hares are larger with black ear tips. Rabbits are born blind, naked, and helpless in dens. Hares are born in the open with open eyes, fur over the body, and able to run within minutes. Rabbits are kept as pets and common laboratory animals; hares are not.

Male rabbits are called **bucks**. Females are **does**, and young rabbits are **kits** or **bunnies**.

### **Natural Behavior of Rabbits**

European (domesticated) rabbits (*O. cuniculus*) have different behavior than the behavior of the North American eastern cottontail rabbit (*Sylvilagus floridanus*). Cottontail rabbits do not burrow and do not tolerate the presence of other rabbits. The European rabbit, the ancestor of domesticated rabbits, are social prey animals that live in burrows of up to 30 individuals. Rabbits like to explore and forage for food, interact with other members of their group, and huddle together when resting. Self-grooming and mutual grooming of others is frequently performed in a European rabbit warren. Failure to groom can be a sign of disease. They are herbivorous, crepuscular, and nocturnal, and like to burrow in soft, sandy dirt. They are born without hair and their eyes closed. Immediate acceptance and care from the mother is essential to survival. Adult size ranges from 2 lb. to more than 15 lb. Their bones are fragile compared to other animals of the same size. Their teeth grow continuously and are normally worn down if allowed to gnaw abrasive food or objects. Rabbits are coprophagic and eat cecotrophs directly from their anus about three to eight hours after eating. They may thump a rear foot if agitated and may spray urine. Rabbits are prey for many predators, such as dogs, cats, coyotes, ferrets,

large birds, and snakes.

Sexually mature rabbits are quite territorial. They assess and claim their territory and possessions by odor. They have glands on their chin and in their perineum which they use to rub on possessions. Both males and females will seek their highest possible role in dominance of others. Sexually intact male rabbits can be territorially aggressive and will vocalize (growl, grunt), charge, and claw with its front feet, particularly if threatened by a child, small dog, or cat. Females can be aggressive if their young are perceived to be in danger. Adulteration of the doe's pheromones on kits by handling kits without gloves can lead to the mother's rejection of her babies.

Young rabbits should be separated by gender at three months to prevent early matings. In males, the testicles are the most obvious gender determining structure. Males will need to be housed individually, if not neutered.

Neutered male rabbits, called *lapins*, are more interactive and easy to handle and therefore, better pets for children. Neutered males also are less likely to attempt to mark territory with urine and feces.

### **Approaching and Catching**

Handlers should grasp the skin behind the rabbit's neck while the other hand scoops up the rump. The rabbit should be turned so that its head is tucked under the handler's arm while he maintains a grasp on the neck and support the hindquarters. This is called the football hold. Some rabbits will bite, so care must be taken to avoid putting fingers near their mouth.

No effort should be made to restrain or pet the head. Rabbits will strongly resist manipulation of their head, and attempted restraint of the head could lead to a broken neck. Chemical restraint is necessary for examining or treating the head or neck. Heavy gloves should be worn for protection from scratches if trying to separate fighting rabbits.

### **Handling for Routine Care and Management**

Rabbits will try to twist and kick when resisting restraint which can cause back injuries, including fractures. Rabbits have thin, light bones and very powerful hind legs. If they kick with suspended hind legs, they can fracture their spine or otherwise damage their spinal cord. In addition, they also have sharp claws that can injure the handler, if allowed to kick during handling. Slick floors can also endanger rabbits due to risk of back injury. The ear flaps of rabbits are important to their hearing and contribute to heat dissipation. They are delicate structures that should never be used for restraint.

A safe means of restraint is to gently scruff the skin on the back of the neck. If using a scruff hold, the hind legs must be supported and restrained. Lifting a rabbit by a scruff hold alone is likely to result in the rabbit fracturing its back by kicking. The safest means to move a rabbit is in a travel crate is to support it with both of the handler's arms.

Most routine procedures can be performed on rabbits while they are in sternal restraint on a table. A nonslip mat should be placed on the table. Otherwise, rabbits may struggle, kick frantically and fracture bones. The handler should keep at least one hand on the rabbit at all times. If holding with one hand, the rabbit's rump should be pushed against the handler's abdomen while one hand presses down on the top of its shoulders. If restraining with two hands, one hand presses down on the shoulders and the other on the rump. Toenails can be trimmed with the rabbit in sternal position by lifting one foot up at a time. Additional restraint can be applied

with towel wraps, as used with cats.

Examination or treatment of the ventral aspects of the body can be performed by grasping the rabbit's front legs with one hand, turning the rabbit over and supporting the hindquarters with the other hand. The rabbit's body should then be in a "C" shape.

Special care is required in handling baby rabbits. Handlers should wear plastic gloves and rub the babies with nest bedding when returned to nest, to keep human odor off the babies. Rabbits should be removed from cages rump first to prevent feet from getting caught in a wire mesh floor. To place a rabbit into a cage or box, it should go in rump first facing a side wall or facing outward. This prevents it from kicking back and spraying litter out of the box and scratching the handler's arms. The handler should ensure that the rabbit's legs are resting on the surface and ready to support its weight before releasing by pressing the rabbit down and then releasing with both hands at the same time.

Now, let's recap the key points to remember from today's episode:

- Hedgehogs salivate on their spines which can cause skin irritation in some handler's hands and arms.
- Rabbits should never be restrained by their ears.
- Rabbits should be placed into and taken out of cages and boxes rump first.

Abby says it is time to wrap up this episode.

More information on animal handling is available in my book, *Animal Handling and Physical Restraint* published by CRC Press. It is also available on Amazon and from many other fine book supply sources.

Don't forget serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.