

# FERRETS

~by Dr. Kay Bishop; APS of Durham Veterinarian



## Basic Information

**Life Span:** The average life span for a pet ferret in the U.S. is 5-7 years, though a small number of ferrets may live as long as 12 years.

**Descenting:** Most American pet ferrets are descented at the time of neutering, usually at 4-6 weeks of age. This means that the ferret is unable to spray during times of stress or aggression. However, it will not eliminate the normal musky odor that is spread from the oil glands in the skin (see Bathing).

## Behavior

**Activity Level:** Ferrets are lively, comical animals, and it is this quality that endears them to people as pets. Although ferrets sleep a good portion of the day (15-20 hours), they need exercise and should be allowed out in a supervised area for a minimum of 1-2 hours per day.

**Multiple Ferrets:** Ferrets can be kept singly, in pairs, or in groups of 3 or more. Ferrets play aggressively with each other and may bite fiercely along the back of each other's necks. This seldom results in serious injury, and eventually they work out a hierarchy within the group. New ferrets should be introduced slowly and in a neutral territory. Separate cages should be used until they have been well introduced under close supervision.

**Other Pets:** Ferrets typically enjoy interacting with other pets in the household. Close supervision is recommended during periods of interaction to prevent injury to the ferret by larger pets such as dogs and cats, and to prevent the ferret from harming smaller species such as birds and rodents, which may be perceived as prey.

**Children:** Ferrets are generally non-aggressive pets. However, nipping and biting can occur. Close supervision at all times is warranted to prevent any unfortunate incidents. Licking and "ferret kisses" should be discouraged.

## Housing

**Cage:** Minimum size for 1 or 2 ferrets is 30"(L) x 30"(W) x 18"(H). Ferrets that spend most of the day in a cage benefit from a larger condo-style cage. The cage must be well ventilated, easy to clean and scrub, and escape-proof. Many sizes and styles are available commercially, but extra large dog kennels can also be modified to provide suitable housing. Aquariums are unsuitable housing for ferrets.

**Temperature:** Ferrets do not tolerate extremes in temperature and are highly prone to heat stress. Outdoor housing is not recommended.

**Litter:** Most ferrets are easily litter trained. A pelleted organic litter (pine, recycled newspaper, etc) should be used instead of clay kitty litter. Several litter boxes should be provided in addition to the one in the cage, at least one per room where the ferret plays. Litter boxes need to be cleaned daily. Most ferrets do not like to use the corner model litter boxes commonly sold for ferrets. Use cat sized litter pans instead.

**Bedding:** Wood shavings should not be used as bedding for ferrets. Shavings contain dust and oils that are irritating to the respiratory tract. Most ferrets prefer to burrow in cloth items such as old towels, blankets and sweaters. Baskets, boxes, hammocks and various other items can be provided as a "nest" for sleeping. Immediately remove any items that appear frayed or might be ingested.

**Toys:** Ferrets are natural burrowers. Tunnels can be made out of PVC pipe, clothes drier hose, old pants legs and cardboard mailing tubes. Ferrets may eat rubber or plastic, so only very durable toys should be provided and inspected regularly for damage. Paper bags, cloth toys for cats or babies, and cardboard boxes with holes in the sides and top are good choices.

**Ferret-proofing:** The average household is full of life-threatening dangers for a ferret. The first step is to get down low and take a good ferret-level look at any area where your ferret will be allowed to play. Any holes around plumbing or appliances must be well sealed. Wire mesh or plywood should be secured to the bottom of sofas, chairs and mattresses to avoid shredding, burrowing and possible entrapment. Ferrets love to climb into the base of open recliners and can be inadvertently crushed. Electrical cords must be out of reach or well covered to avoid chewing and potential electrocution. Cabinet doors need to have child-proof locks. All household cleaners and medications should be out of reach in a locked cabinet. Ferrets are fond of eating latex and foam rubber, leading to intestinal tract obstruction. These items include shoes, earphones, rubber bands, stereo speakers and pipe insulation. Hard plastic carpet protectors in corners where your ferret likes to dig will help protect your carpet from being destroyed. Household plants will be readily uprooted by a digging ferret and may also be poisonous.

## Diet

Ferrets are strict carnivores. This means that in the wild, the only plant material they would eat is what is present in the gastrointestinal tract of their prey. Pet ferrets should ideally be fed a commercial diet formulated specifically for ferrets containing no less than 35-40% crude protein and 15-20% fat. The first 3 ingredients listed should be meat-based. Some high quality kitten and cat foods meet these requirements and can be substituted if no ferret formula is readily available. Any changes in diet should be made gradually over a 2-week period to avoid gastrointestinal upset, and it is generally best to find one good brand and stick with it. Although ferrets often seek out sweet or high-carbohydrate foods, these are not healthy and should be avoided. Hard boiled or scrambled eggs and chicken breast are appropriate treats.

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## Preventative Care

**Physical Exam:** Annual exams are recommended through 3 years of age, after which ferrets should be examined every 6 months.

### Vaccinations:

1. Distemper: Given at 8, 12, and 16 weeks, then annually.
2. Rabies: Given at 12- 16 weeks, then annually.

Note: Vaccine reactions in ferrets are fairly common. Vaccines should be given one at a time (one per visit and at least 2 weeks apart), and the ferret monitored for 30-60 minutes post- vaccination for any adverse reactions.

**Intestinal Parasites:** A fecal sample should be checked for intestinal parasites as needed determined by exposure and clinical signs.

**Heartworm Preventative:** Heartworm disease in ferrets resembles that in dogs. Due to the ferret's small size, just one adult worm in the heart can be lethal. Although not labeled for use in ferrets, the smallest dose of Heartgard® (68 mcg) or kitten sized Revolution® given monthly are effective preventatives.

**Flea Control:** Both Advantage® and Frontline® have been used at half the cat dose to treat and prevent flea infestation. Neither of these products is labeled for use in ferrets, and all owners must be aware that this is an extra-label use. Traditional shampoos, sprays and powders that are safe for cats are also generally safe for ferrets.

**Dental Care:** Daily brushing with a cat or dog toothpaste is recommended. Routine scaling and polishing is performed as needed.

**Grooming:** Ferrets should be bathed no more than once every two weeks. They have a natural musky odor from the sebaceous glands in the skin. Bathing may actually intensify this smell as these glands kick into overdrive! Regular brushing with a soft bristle brush will help keep the coat clean, and regular washing of bedding helps to reduce the odor. Ears should be clean and free of wax and debris. Ear cleaners sold for cats can be used safely on ferrets. Weekly ear cleaning help keep odor to a minimum.

**Labwork:** Starting at 3 years of age, routine screening is recommended every 6-12 months. This is due to the unfortunately high incidence of serious disease, especially certain tumors, in older ferrets.

## Shopping List

- ❑ **Cage:** Larger is better! Two to three levels will allow of areas for food, bedding and litter pans. The base should be no less than 4.5 sq ft.
- ❑ **Litter Pans:** You will need at least 2 medium cat sized litter pans. Do not waste your money on small "corner" pans.
- ❑ **Litter Scoop:** You will need this to scoop the poop in between full litter pan changes.
- ❑ **Litter:** Yesterday's News cat litter is best. No pine products or clumping cat litter!
- ❑ **Bedding:** A variety of hammocks, tubes and sleep sacks are available. You will want at least one hammock per ferret, and clean towels, soft blankets or old t-shirts (make sure towels are free of loose fibers and strings) for your ferret(s) to cuddle up in.
- ❑ **Food:** Totally Ferret is one of the best ferret foods available. You can mix it with one or two other high quality ferret or kitten foods so that you will always have a brand your ferret is used to in an emergency. Good quality food must be available to your ferret at all times.
- ❑ **Food Dish:** Heavy ceramic bowls or the type that attaches to the cage (Quick Lock) help prevent spills.
- ❑ **Water Dish:** Same as above. Some ferrets prefer to drink from a dish, instead of a bottle, so it is nice to have both available.
- ❑ **Water Bottle:** Make sure to get a large enough size, like those marketed for rabbits and guinea pigs.
- ❑ **Nail Trimmers:** The cat trimmers that look like a stubby pair of scissors work best for ferrets. Go ahead and get a good quality pair—you're going to need them on a regular basis (ferret nails grow rapidly and should be trimmed weekly).
- ❑ **Shampoo and Ear Cleaner:** Look for products labeled safe for ferrets.
- ❑ **Carrier:** The hard plastic Pet Taxi type carriers sold for cats work well for ferrets and will keep your ferret safe during travel.
- ❑ **Toys:** Small stuffed animals, puppy Nylabones, boxes, baskets, tubes, tunnels, cat toys and a wide variety of other items will be appreciated by your ferret. Avoid anything with foam or rubber parts, and always monitor your ferret closely to make sure he isn't ingesting anything he shouldn't. Intestinal blockage is a common condition in young ferrets that requires surgery and is potentially deadly!
- ❑ **Digging Box:** Can be made from a large Rubbermaid storage container with a hole cut in one side. Fill with clean play sand, dried beans, or ping pong balls. Your ferrets will love it!
- ❑ **Treats:** Several commercial treats are available, but are largely not recommended, because they often contain a lot of sugar. Hardboiled eggs, small bits of baked chicken breast or fish, and freeze dried Salmon are all much healthier choices.
- ❑ **Sleeping Box:** Can be made from a large Rubbermaid container with a hole cut in the side and attached to the cage with a short length of landscape drainage tubing. Fill the container with towels and fleece blankets to create an inviting bed.
- ❑ **Leash and Harness:** If you plan to take your ferret outside to play, you will need these to keep them safe. Train your ferret to wear the harness before you use it. Some ferrets can wiggle out of even a well-fitted harness, so test their abilities indoors first!

## Not Recommended

- **Sweet Treats:** Ferrets are strict carnivores—sugar is not good for them!
- **Vitamins:** Unnecessary if feeding an appropriate diet. Only use a supplement if recommended by your veterinarian.
- **Exercise Wheel or Balls:** These devices are not appropriate or necessary for ferrets.



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## Adrenal Disease

**Definition:** A disease resulting from excess secretion of sex hormones from one or both adrenal glands.

**Pathology:** Adrenal gland enlargement may be a result of hyperplasia (benign proliferation of normal cells), adenoma (benign tumor), or adenocarcinoma (malignant tumor). Malignant tumors may metastasize (spread to other organs), but only rarely.

**Age:** Common disease in older ferrets (3.5 years is average age at presentation).

**Gender:** Both males and females susceptible, but females may present more frequently due to vulvar enlargement.

**Clinical Signs:** Hair loss (alopecia) is a common finding (>90%), and may vary in severity. Hair loss is symmetrical and starts over the tail and rump, spreading laterally, dorsally and ventrally. Occasionally hair loss will be seasonal in the fall with regrowth in the spring in the early stages of disease. Pruritis, or itching, is also a common finding (>33%), especially over the shoulder blades. Skin may be thin, red and irritated with secondary infections. Vulvar enlargement occurs in over 70% of female ferrets with adrenal disease and is often the presenting complaint on exam. Prostate enlargement (hyperplasia and cystic changes) often occurs in males, and may result in urinary tract infection and outflow obstruction.

## Diagnosis

**Physical Exam:** Enlarged adrenal glands are sometimes palpable on physical exam. The right adrenal gland is more difficult to palpate due to a closer attachment to the dorsal body wall and caudal vena cava. Other abnormal findings may include an enlarged spleen and intra-abdominal lymph nodes.

**CBC and Chemistry Panel:** Both the CBC and chemistry panel are often within normal limits. If disease is severe or chronic, estrogen-induced bone marrow toxicity may result in anemia and reduced white blood cell production.

**Radiographs:** Generally not helpful in visualizing the adrenal gland mass, as they rarely mineralize. However, radiographs are a useful tool for diagnosing concurrent illness such as heart disease.

**Ultrasound:** Abdominal ultrasound is useful for identifying enlarged adrenal glands and determining size and which side is involved. Also aids in identifying concurrent disease.

**Plasma Sex Hormone Measurement:** Levels of one or more sex hormones are typically elevated with adrenal disease. These hormones include: dehydroepiandrosterone sulfate, androstenedione, 17-hydroxyprogesterone and estradiol.

**Note:** Tests commonly used to diagnose Cushing's disease in dogs (ACTH stimulation and LDDST) are not diagnostic for ferret adrenal disease.

**Exploratory Laparotomy:** Direct visualization of the adrenal glands. Also useful for detection of other forms of cancer commonly found in the pancreas (insulinoma) and lymph nodes (lymphosarcoma).

## Treatment

**Surgical:** Removal of the affected adrenal gland(s) (adrenalectomy) is the preferred method of treatment and typically yields the best clinical results. Potential complications post-surgery include recurrence of the adrenal tumor due to metastasis (rare) or the appearance of disease in the remaining adrenal gland. Prostatic cysts and abscesses may also require surgical treatment at the time of adrenalectomy.

**Medical:** Several drugs have been tried for medical treatment of ferret adrenal gland disease, most with limited success. Mitotane, or o,p'-DDD, a drug used for treatment of Cushing's disease in dogs, is rarely effective in ferrets and has many potential side effects. A more promising treatment regime using the drug Lupron (leuprolide acetate) has recently developed, but little is understood about how this drug works. Treatment with Lupron consists of a series of injections initially given 1 month apart. Several injections may be required prior to clinical improvement and maintenance injections are needed long-term. Lupron injections are a good alternative for animals that are unable to withstand surgery, but are not generally as effective and are very costly (~\$200 per injection). Lupron does not reduce tumor size or prevent further growth, but seems to alleviate the effects of excess sex hormones produced.

**Prognosis:** Prognosis with surgical treatment is good if concurrent disease is not present and metastasis has not occurred. The prognosis with medical treatment is unpredictable. Prognosis worsens if bone marrow suppression, urinary tract obstruction, tumor-related obstruction of major blood vessels or metastasis occurs.'

