

# Practical Guide to Home Care of Megaesophagus in Ferrets

By Carla Almaraz

**NOTE:** The information in this handout is not intended to replace the advice of your veterinarian. This information is the result of practical experience and not from controlled laboratory experiments.

## Symptoms and diagnosis:

Megaesophagus is the dilation of the esophagus due to the lack of muscular motility. When the ferret attempts to swallow, the food or liquid cannot be propelled into the stomach causing the esophagus to swell as it fills. As a result, breathing may be impaired, and the ferret regurgitates. This is not true vomiting because the material never enters the stomach. Gurgling and rumbling sounds are commonly heard. If the food or liquid pools in the esophagus and then enters the stomach, a loud noise can be heard (which sounds like water going down a drain). Some of the regurgitated food might be inhaled, resulting in a pneumonia that is extremely difficult to treat.

Megaesophagus is a relatively rare condition in ferrets. Acquired megaesophagus is being diagnosed more often as vets become familiar with ferrets. Megaesophagus can sometimes be diagnosed by giving barium to the ferret, feeding the ferret, and immediately taking an X-ray. On the radiograph, food can frequently be seen in the esophagus. The condition may also be diagnosed by endoscope examination, fluoroscopy, or clinical observations. Because the ferret does not get sufficient food and water into the stomach to digest, it dehydrates and wastes away, often in a matter of days. Prompt action is required to save the ferrets life.

## Prognosis:

Quesenberry states that the ". . . prognosis for ferrets with megaesophagus is poor; generally, they die or are euthanized within days of diagnosis." (Hillyer/Quesenberry; "Ferrets, Rabbits, and Rodents - Clinical Medicine and Surgery" 1997, pg.

28). However, we have had success helping the ferret live with this condition by following suggestions listed below if diagnosis occurs before the ferret is severely dehydrated and weak. Long-term survival for the ferret requires the patience, commitment, and love of a dedicated owner.

### **Medicines:**

For controlling the symptoms of megaesophagus, we found that Zantac® (15mg/ml) may actually be the only drug that is required. Zantac works by reducing reflux of the stomach acids that irritate the esophagus. Give 0.1cc twice daily thirty minutes before feeding. (The basic prescription mixture is peppermint so a pharmacist might be able to mix it with a small amount of cod liver oil for a more palatable taste.) We've also found that refrigerated Zantac is accepted more readily. Propulsid®, a motility drug, may also help. A small amount of the herb slippery elm mixed with warm chamomile tea and sweetened with honey is great for soothing and healing the irritated esophagus, especially after repetitive regurgitation.

Ferrets with acquired megaesophagus frequently have other stomach problems, such as Helicobacter Mustela. The common treatment for H. mustelae, according to Bruce Williams, DVM., Air Force Institute of Pathology, is amoxicillin at 10-20 mg/lb. twice daily or alternatively, 20 mg/lb. for five days, then 10 mg/lb. for the rest of the time, metronidazole (Flagyl®) 30 mg/kg once daily, and Pepto-Bismol® 1/15th tablet or 1cc liquid once daily. This therapy must be continued for 4-6 weeks. Be prepared to "wear the pink stuff" because ferrets hate the taste of both Flagyl and Pepto-Bismol. New research (B. Williams, A.F.I.P.) suggests that a combination of chlorythromycin (Biaxin®) 50 mg/kg once daily and amoxicillin at 35 mg/kg once daily, or 20 mg/kg twice daily for two weeks has great efficacy.

### **Care and Feeding:**

Proper feeding is the key. If the ferret is dehydrated, fluid therapy is needed immediately and needs to be continued until the ferret is getting sufficient fluid from its diet. Once fully hydrated, soft food may supply all the liquid the ferret requires,

so it may actually drink very seldom. Frequent feedings (5 - 6 times daily at first) are given until the ferret is at a good weight, then gradually reduce to 3-4 feedings daily for maintenance. Don't allow the ferret to go more than 8-10 hours without food. If meals are late or skipped, the ferret may have a difficult time keeping food down at the next feeding.

If the ferret is unable to keep food down, Stat-VME®, DVM Dyne®, or Pounds Plus® can be given instead of the recipe below on a short-term basis only. Mix 5cc (one teaspoon) of this concentrate with 10cc of water. Allow the ferret to consume as much as it can eat by feeding very slowly. Five cc's of the high calorie, low-bulk concentrate can provide enough calories for a ferret for 24 hours but feed it all it will eat. On this regime, the ferret will still require fluid supplementation. Never feed the concentrate straight since it is too potent for ferrets.

When feeding the ferret, keep the head elevated and the throat in a straight line. Never feed with the head down or at the normal angle. The ferret's head must be raised to allow gravity to assist in swallowing food! Let the ferret pause a couple of seconds between each mouthful of food to allow time to swallow. Each feeding may take 10-20 minutes. Be relaxed, unhurried, and don't allow distractions. The ferret can sense your emotions and may have difficulty eating if you are stressed.

The ferret should consume at least one to two ounces (30 to 60 cc's) of "soup" per meal or a total of 90 to 240cc's per day, depending upon size and body condition. We found that feeding with a 20cc syringe or from the finger works the best. If the food is very soupy, the syringe works best. Clean the syringe (and the ferret!) with fresh water after every meal and replace the syringe weekly. Ferrets that are not used to being hand-fed may reject all your advances to feed it. Be persistent but gentle and patient at feeding time. Remember, you have the "job" of keeping your ferret alive by feeding it. Once the ferret is comfortable with hand feeding, it will stop eating when it is full.

If the ferret does not regurgitate runny soup, make the food a little thicker at the next feeding, more like a porridge, with less water or more rice cereal. If the ferret starts choking (which is

common), massage its throat down to the chest area. This can sometimes stimulate the ferret to swallow. If the ferret is unable to swallow the food and starts to regurgitate, lower the ferret's head to allow the food to come up easily. Give the ferret a chance to recover and then try feeding again. If the ferret continues to regurgitate, wait 30 minutes, then try again. Be sure the food is runny since this will enter the stomach easier than a thicker porridge. Occasionally, you may have to wait a couple of hours before the ferret is able to eat again.

If the ferret regurgitates and then inhales the fluid, there is a chance that it may develop aspiration pneumonia. Monitor your ferret if it is choking and take it to the vet for antibiotics if you think it has aspirated fluid or food into the lungs.

In the cage, the water bottle should be suspended high so that the ferret's neck is straight when drinking from the sipper tube. Never use a water bowl with this condition. In theory, a ferret could eat solid food (from a high platform) once the condition has stabilized, but this has not been our experience. The ferret will, in all likelihood, require hand feeding at least three times daily for the remainder of its life.

## Magellan's Soup for Megaesophagus

- 1 can Hill's canine/feline a/d® (prescription formula from your veterinarian)
- 1 2.5 ounce jar baby Lamb or Chicken (be sure it doesn't contain onion!)
- 1 2.5 ounce jar baby food bananas (such as Gerber's)
- 1-2 Tablespoons baby food rice cereal (gives some bulk to the stool)
- 1-2 teaspoons of a high calorie, low bulk concentrated formula such as Pediatric-stat, DVM Dyne, or Pounds Plus (optional for gaining weight gain; available from pet supply companies)
- 0.5 cc Trace minerals such as Trace AniMinerals® (Pet's Friend 1-800-868-1009)
- 0.5 cc Pet-Tinic® (available from your veterinarian)
- Mix together with filtered water until desired consistency is obtained. Keep soup refrigerated and use within 48 hours. Warm just the amount needed at feeding time. (Note: Feeding soft food causes loose stools.)

Note: This was the recipe that I used for Magellan and worked very well. However, please consult with your veterinarian to determine the correct nutritional needs for your ferret.

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