

VITAL SIGNS and EMERGENCY SITUATIONS

It is important to know what is normal in your pet in order to determine when something is wrong. **Observation of your pet's daily activities such as eating, sleeping, playing, breathing, defecating and urinating is critical to the detection of illness.** If you know your pet's normal routine you will be able to quickly detect when that routine changes.

There are obvious signs of illness such as loss of consciousness, weakness, slow or no response to stimulus, lameness, diarrhea, vomiting, choking and unusual breathing patterns which will be easy to spot. In addition, there are also some vital signs that you can observe to help determine the severity of the illness. Please examine the following areas of your pet now while he/she is healthy so you will know what is normal.

VITAL SIGNS

MOUTH - If you look in healthy ferret's mouth you should observe that the tongue and gums are dark pink and moist. There should be no foul odor to the breath. If you press your finger firmly onto the upper gum near the canine tooth and then take it away you should observe the gum tissue "blanching" (turning white) where you have pressed the blood out of the area. Within 1 to 2 seconds the area should then become pink again. This is called the *capillary refill time* (CRT), The CRT in a normal ferret should be about 1 to 2 seconds. A CRT of 3 seconds or longer can indicate shock, a toxic condition, and cardiovascular disease or blood loss. If the gums or tongue look blue, gray or are "muddy" colored it can indicate a lack of oxygen, cardiovascular disease, a toxic condition or shock. Very light pink or white gums can indicate a loss of blood or shock. Yellowish gums can indicate liver disease. Foul smelling breath can be caused by kidney, liver, dental, intestinal or other metabolic disease. A loss of moisture in the mouth where the gums and saliva become dry and 'sticky", can indicate dehydration.

EYES - A normal ferret's eyes should be fully open, moist and the sclera (white part of the eye) should be white with very small dark pink to red blood vessels. The *conjunctiva*, which is the part of the eye under the lid, easiest to see if you gently pull the lower lid down, should also be dark pink. Ferrets squint their eyes when they are experiencing pain, weakness or dehydration. If the eyes lose their shiny appearance it may indicate dehydration. A "glassy" or "far-away" look to the eyes can indicate low blood sugar, pain, shock or central nervous system disease. A yellow cast to the white part of the eye can mean liver disease. A loss of color in the blood vessels of the sclera as well as the appearance of light pink or white conjunctiva can indicate shock, loss of blood or cardiovascular disease. Excessive tear production can indicate generalized pain, foreign material or infection of the eye, corneal ulcers, blocked tear duct, environmental irritant or dental pain.

HYDRATION - Hydration relates to the fluid content of the tissues. When an animal is dehydrated, body tissues are losing fluid more rapidly than they are being replaced. The visible result of dehydration includes a loss of elasticity of the skin and loss of moisture in mucous membranes such as the gums, and conjunctiva. To test for dehydration use the skin over the shoulders or back. Don't use the skin over the neck because it is thicker than other areas of the body and has a tendency to be less elastic naturally and therefore may give a false reading of dehydration. To test for dehydration, grab a piece of skin firmly between your thumb and forefinger and pull it upwards away from the ferret's body. This procedure is called "tenting the skin" because the piece of skin now looks like a little tent. This should not be painful to your pet and you do not need to pull hard. When you release the skin it should immediately return to its normal position. Practice this on your ferret before he/she becomes ill so you can have a sense of what is normal. You can also practice on yourself by pulling up the skin on the back of your hand and then releasing it to get the same effect. If the pet is dehydrated, the skin will return more slowly to its normal position. The more dehydrated the pet, the more slowly the "tent" will return to a flat position. You can time how long it takes for the skin to return to its normal shape by seconds and report that to your veterinarian. Other signs of dehydration, as mentioned under EYES and MOUTH, include dry, "sticky" gums and dry -looking eyes.

PAIN - Ferrets are tough little creatures that tend to hide pain as much as possible and go about their daily life. However there are some specific signs of pain that you should be aware of.

- **Squinting** - Ferrets squint their eyes either in response to a specific painful eye problem or in response to generalized pain. General debilitation and weakness and moderate to severe dehydration can also cause squinting. If your ferret is squinting constantly and doesn't stop when it plays or in response to handling, then there is a problem.
- **Lameness** - Lameness can indicate pain or loss of neurological function in a specific limb. If you touch the affected leg and your pet winces, pulls away quickly, or cries, then it is painful. Ferrets can also exhibit generalized hind limb weakness for a variety of reasons. The most common cause for a hind limb weakness, which is not painful, is when the whole ferret is weak from a systemic disease. For some reason ferrets show generalized weakness in their hind quarters first.
- **Aggression** – A normally docile ferret that suddenly becomes aggressive should be suspected of having a painful condition. This is particularly true if the aggression is associated with touching any part of the body, you should suspect a possible painful condition.
- **Tense abdomen** - Ferrets normally have relaxed abdomens that are easy to palpate. If your ferret is walking around with a tense abdomen or hunched posture, seems touchy or cries when you pick him/her up under the abdomen, it is very likely your pet is feeling some abdominal pain and this could be a serious problem.
- **Rapid breathing** – Ferrets in pain can breathe more rapidly, usually shallow breaths. Rapid breathing, however, can also be a sign of other disease. (See section on Difficult Breathing or Rapid Breathing)

FEVER - Although it is not essential for you to learn to take your ferret's temperature, it is not a difficult procedure to learn if you have an assistant to help. As mentioned previously, ask your veterinarian for assistance in learning the proper technique. The normal body temperature of a ferret ranges somewhere between 100.5 degrees F and 102.5 degrees F. We consider it a fever if the temperature goes over 103 and a serious situation if it goes over 104.5 degrees F.

This information should only be used as a guideline,
HOFA recommends obtaining the advice of a veterinarian.

EMERGENCY SITUATIONS

BLEEDING -The total blood supply of a ferret is about 10% of its body weight. Therefore a ferret that weighs 1000 grams (2.2 lbs.) has about 100 cc (6 tablespoons) of blood. Healthy ferrets can safely lose up to 10% of this volume (10cc or 2 teaspoons) without serious consequence. People often panic when they see blood and they frequently overestimate the volume of the loss. Blood may be soaked into cage papers, bedding or towels and has a tendency to spread out making the actual blood loss appear greater than it is. This does not mean that blood loss is not a serious situation, but if you understand the volume of “safe loss” than it is easier to calmly evaluate the actual severity of the problem.

A ferret that loses more than the “safe” volume of blood will gradually become weak and the mucous membranes including the gums and conjunctiva will become pale. The heart rate becomes very rapid and the pet can also exhibit rapid breathing.

- **Cause** - Blood loss is commonly related to trauma to the skin or nails. However, blood can also be lost through the intestinal tract or respiratory tract due to infection, ulcers, cancer, and trauma or poisoning via vomiting, diarrhea or coughing. **Consider internal blood loss an emergency.** Ulcers, cancer or trauma to the urinary or reproductive tract can cause blood in the urine. Other types of internal bleeding such as rupture of the spleen or liver can only be seen externally as weakness and pale mucous membranes. If the ferret is suffering from a disease that prevents the blood from clotting such as liver disease, hyperestrogenism (females being in “heat” too long) or poisoning, then bleeding can occur from any orifice of the body or small tear in the skin.
- **Action**
 - **The first thing to do with any blood loss is to determine from where it is coming and try to stop it.** If it is external and the wound is small, it may be possible to apply pressure to the area to stop the flow of blood. It is difficult to bandage ferrets unless they are very weak. If your pet is fighting your efforts to bandage a wound, don't persist because the increase in blood pressure caused by the struggle may renew or increase the bleeding. Avoid washing the area if the bleeding has stopped, because a clot may already have formed and removing it will start new bleeding. Use undiluted hydrogen peroxide to clean the wound because it not only is an antiseptic, but it can help slow the flow of blood. If a nail is bleeding, apply styptic powder. Do not apply styptic powder to skin wounds because it can contaminate the wound and will have to be cleaned out at a later date. The presence of blood clots is a good sign because it means the body has the ability to stop the bleeding.
 - **Next evaluate your pet for excessive blood loss by checking the color of the mucous membranes.** Call your veterinarian as soon as you have evaluated the situation. Obtain immediate veterinary attention if the bleeding cannot be stopped, the pet is showing signs of anemia or the bleeding is coming from an internal source. If possible, bring in materials that contain blood such as cage papers or towels. These items are helpful in determining the amount of blood loss.

CHOKING - Ferrets normally make a “choking” or “reverse sneeze” sound that is a cross between a sneeze and a cough. It is quite loud and is often mistaken for a serious problem. This is the ferret's way of clearing foreign material out of its throat. This normal behavior will stop within a few seconds and occur occasionally on a daily basis. Another situation that is often mistaken for choking is when ferrets drool and paw at their mouths. This behavior is caused by such conditions as hypoglycemia (low blood sugar), nausea or foreign material in the mouth. None of these conditions will cause a ferret to suddenly collapse. However, a ferret that is choking because of an obstruction to the trachea (windpipe) will become very weak and collapse in a matter of seconds to minutes. The gums and tongue will be muddy to blue in color and the breathing will be erratic and then cease. This is a dire emergency.

- **Cause** - **Choking is usually due to a partial or complete obstruction to the airway caused by something solid, such as food, or liquid, such as water.** Occasionally it can be caused when a very weak ferret is being hand fed too rapidly. Choking can also be caused by anything that causes inflammation of the airway, thus closing it off, such as an anaphylactic (allergic) reaction, trauma to the trachea or an ingested or inhaled toxin.
- **Action** - If your ferret is choking and has collapsed then hold him/her with the head pointed towards the ground and give a few quick, sharp blows to the back along the upper body to see if the material can be dislodged. You can try to take a look at the back of the throat and see if you can determine if there is something there that can be dislodged. If you can, try to dislodge it by suction with a syringe. If the breathing has stopped, you can try “mouth to nose” resuscitation by holding the mouth shut and blowing into the nose gently. Get in the car and get your ferret to a veterinarian immediately.

Ferrets that are active and alert but still cough or choke excessively need to be examined as well, but it may not be an emergency. You can try to look in the mouth to see if there is a problem being careful to keep your fingers away from the sharp teeth. We had a case of a ferret that swallowed a human hair about 12 inches long and part of the hair was still stuck in the ferret's mouth while the rest was in the stomach. It caused the little guy to cough and gag for some time until we removed it. It was not an emergency, but was certainly annoying to the patient!

DIFFICULTY BREATHING OR RAPID BREATHING - A ferret can have difficulty breathing or rapid breathing but not exhibit any choking or coughing. The breathing may either be shallow or deep. The color of the gums, tongue or conjunctiva is pale pink, muddy or blue. The ferret is usually lethargic and may also have lost its appetite.

- **Cause** - Causes of difficult breathing include cardiac disease, respiratory disease, air in the chest (due to a puncture of the chest wall or puncture of the lung), tumors in the chest, poisoning, blood electrolyte imbalance due to systemic disease (such as liver or kidney disease), neurologic disease and rupture of or pressure on the diaphragm. Severe pain anywhere in the body can also cause rapid breathing.
- **Action** – **It is an immediate emergency if a ferret is having difficulty breathing and has muddy or blue-colored gums or tongue. Do not administer anything orally to your pet** because the food can easily get into the lungs and worsen the condition. It is better to keep your pet cool (not cold) rather than warm because warm air is more difficult to breath. Check the ferret's vital signs and get veterinary attention immediately.

DROOLING and/or PAWING AT THE MOUTH - Ferrets can exhibit excessive salivation and paw aggressively at their mouths. The saliva may bubble out of the mouth and coat the chin and lower neck.

- **Cause** - The most common cause of this condition is a low blood sugar caused by insulinoma (pancreatic beta cell cancer). The ferret may be drooling because the hypoglycemia causes nausea. Other conditions that can cause nausea include ulcers, foreign bodies and infections of the stomach and some toxins. Another cause of drooling and pawing at the mouth is the presence of foreign material in the mouth such as wire, string, piece of dry food (typically caught in the roof of the mouth) or other foreign object.
- **Action** - If your ferret is drooling or pawing at the mouth, carefully exam the mouth to see if you can identify any foreign objects. Use tweezers or a Q-tip to dislodge the material rather than your fingers. If the material cannot be removed, seek veterinary assistance immediately because general anesthesia is usually needed to remove the material. If there is nothing in the mouth try administering a small amount of honey or Kayro syrup mixed with warm water orally. If the problem is hypoglycemia, the condition should go away in 5 to 15 minutes. Giving the honey will only keep the situation at bay temporarily and your veterinarian should still be consulted **immediately for further instructions.**

EATING A FOREIGN OBJECT - Ferrets, particularly under the age of one, enjoy eating a number of materials around the house, which can potentially lead to an intestinal obstruction.

- **Cause** – Some of the ferret's favorite items to eat are made of foam or latex rubber and include dog or cat toys, stereo speakers, headphones, insides of athletic shoes, children's toys, pipe insulation and rubber bands. Other potentially dangerous items eaten are large pieces of dried fruit or vegetables, which the ferret cannot digest and pieces of towels or cloth. Ferrets have the ability to vomit, but they often do not regurgitate the foreign material they have eaten. **These materials cannot be digested and if large enough they can become wedged in the stomach or anywhere along the intestines and ultimately causes death.** The best way to avoid this problem is to put all tempting items out of the ferret's reach. A ferret that has already developed an intestinal obstruction will become weak, depressed and eventually have seizures and completely collapse. The gums, tongue and conjunctiva will be muddy or pale in color indicating severe shock. In addition, the ferret will be severely dehydrated, breathing rapidly, and may have a bloated, tight abdomen. This is a dire emergency.
- **Action** – If you suspect that your pet has eaten a foreign object but is still active, alert and acting completely normal you may be able to get it to pass by using a lubricating type laxative. Cat hairball laxatives work well and can be found at most pet stores and veterinary clinics. Hairball laxatives are basically a petroleum product with flavoring. Administer up to 3 cc (about 2 inches of paste) three times in 24 hours to help the foreign material pass. Since the ferret intestinal tract is short, you should see results in less than 24 hours. Also make sure the pet is still eating and drinking. You can administer liquid as well in the form of an unsweetened fruit juice or water. If nothing comes through, but your pet is still acting normal, then the foreign material may be retained in the stomach or may never have been eaten. Consult your veterinarian for further instructions. **If your pet is exhibiting signs of severe distress such as rapid breathing, depression, and a bloated tight abdomen it is important to not administer anything orally or you may seriously aggravate the condition.** Ferrets in this condition should seek veterinary attention immediately. Ferrets that have a complete intestinal obstruction can die in 24 to 48 hours without medical and surgical attention.

SUDDEN WEAKNESS/UNCONSCIOUSNESS - Sudden weakness or unconsciousness is a serious situation. Weakness can be exhibited as a complete lethargy and inability or reluctance to move or can be exhibited as a loss of balance or unsteady gait.

- **Cause** - Sudden weakness and unconsciousness can be caused by a wide range of conditions including severe anemia, hypoglycemia, pain, high fever, cardiac failure, cancer, partial or complete blockage of the intestinal tract, trauma to the nervous system, kidney disease, liver disease and poisoning to name just a few.
- **Action** - Sudden weakness is an emergency situation, particularly if the weakness is severe. Evaluate your pet's vital signs according to the guidelines listed and call your veterinarian with that information to determine how quickly your pet needs to be seen. Note if there was any possibility for trauma (such as falling, being stepped on, etc.) If you cannot reach a veterinarian immediately, you can try giving some honey or Kayro syrup mixed with warm water orally to see if your pet regains some strength. It is important to tell your veterinarian that you administered these substances and what the results were. **If your ferret is unconscious, do not attempt to give oral medications because your pet will be unable to swallow and may choke.**

SEIZURES - A seizure is caused by abnormal brain activity that leads to unconsciousness followed by varying ranges of body movements. Seizures can range from mild and rapid and almost imperceptible to severe with prominent movement of the extremities and loud vocalizations. Most seizures last only a few seconds, even though it seems like hours when you are watching one, and are not immediately life threatening. However, seizures that persist for several minutes are considered an emergency situation.

- **Cause** - In ferrets two and older, seizures are most commonly caused by severe hypoglycemia caused by insulinoma. Other causes of seizures include head trauma, infection or inflammation of the brain tissue, cancer in the brain, poisons, and blood electrolyte imbalances due to liver disease, kidney disease or intestinal obstructions.
- **Action** - Be very careful when handling a seizing pet because he/she may inadvertently bite you when thrashing about. Seizing pets are unconscious and as bad as the seizure may look or sound they are completely unaware of what is going on and do not feel pain. Cover your pet loosely with a towel, which may help to shorten the seizure. Hold the towel-wrapped ferret in your lap and talk to him/her softly until the seizure is over. Gently stroking the ferret may also help, but keep your hands away from the ferret's mouth. It does not help if you become agitated while holding your pet. Most seizures only last a few seconds. Once the seizure is over, the ferret may act dazed and confused for up to an hour afterwards. Evaluate your pet's vital signs and call your veterinarian immediately. If you cannot reach your veterinarian right away and the ferret starts to seizure again, try placing some honey or Kayro syrup diluted with water on the gums. Use a Q-tip rather than your finger to avoid bites. This may help because the most common cause of seizures in ferrets is hypoglycemia. **If the seizure does not stop after a couple of minutes, you have a potentially life-threatening emergency on your hands and you should seek veterinary attention immediately.**

VOMITING/DIARRHEA - Ferrets have a very short digestive tract and food moves through in about 3 to 4 hours from the stomach to the large intestine. Ferrets do have the ability to vomit, but don't tend to do so as regularly as dogs and cats when they eat something disagreeable. **You should seek veterinary attention if the ferret is vomiting or passing diarrhea multiple times over two to three hours, passes blood in the vomit or stool or is exhibiting sudden or increasing weakness along with the vomiting or diarrhea.**

- **Causes** - There are many causes for vomiting and diarrhea in the ferret. The most common are problems related directly to the intestinal tract such as infections, obstructions, cancer, eosinophilic gastroenteritis, sudden changes in the diet or toxins (plants, insecticides, rodenticides, household cleaners, and overdose of medications). Other causes include kidney or liver disease and any systemic disease that causes metabolic changes.
- **Action** – **Do not give a vomiting pet anything orally.** Do not give pets with diarrhea anything orally unless your pet is dehydrated and you have to wait several hours to see a veterinarian. In this case you can give your pet some very dilute honey, Kayro syrup, nonsweetened fruit juice or electrolyte solution such as Gatorade or Pedialyte (found in the baby section of grocery stores) to give your pet some glucose and fluid. Evaluate the vital signs and call your veterinarian for further instructions. **If your pet is noticeably weak or is passing blood in the vomit or diarrhea, seek immediate veterinary attention.** If possible, collect samples of vomit or diarrhea and place them in plastic bags to take to the veterinarian for evaluation.

STRAINING TO URINATE - Straining to urinate is a serious situation most often caused by a partial or complete blockage of the bladder or urethra. A bladder that can not be emptied is not only extremely painful, but will ultimately rupture. The ferret will go to the litter box frequently and stand for an abnormally long time trying to urinate with little or no urine being produced. Some ferrets will cry loudly while trying to urinate. The urine passed may be blood tinged, or thick with mucous. This condition can be confused with straining to defecate because ferrets stand in the litter box in a similar stance to either urinate or defecate, and they often perform both functions almost simultaneously. In addition, ferrets that are straining to urinate may actually pass small pieces of soft feces because they are straining so hard, further adding to the confusion. Ferrets are rarely constipated and by far the most common reason to see a ferret, particularly a male, in the litter box straining, is because of an inability to urinate.

- **Cause** - The most common cause of straining to urinate in the young ferret is an obstruction of the bladder due to bladder stones. In the male ferret three or older, the most common cause is obstruction of the bladder due to prostate enlargement, which obstructs the urethra. Prostate enlargement is a result of adrenal disease in the ferret and this issue will have to be addressed in the treatment plan. Other causes of straining to urinate can be urinary tract infection or inflammation, cancer in the urinary tract, trauma to the urinary tract, post surgical adhesions and internal masses causing pressure on the bladder or urethra.
- **Action** - The inability to pass urine is an extreme emergency. Evaluate your pet's vital signs and get veterinary attention immediately. Even though you may note dehydration in your pet, **do not administer any fluids (or food) prior to the veterinary visit**. If the bladder is completely obstructed, any additional fluids given prior to removing the blockage will only increase the amount of urine produced and thus the internal pressure and pain in the bladder.

BROKEN BONES - Broken bones are not common in ferrets compared to other emergencies. Bones are most often broken in the extremities. Spinal and pelvic fractures are uncommon. The ferret will not use the affected limb and may either drag it or hold it up. The ferret will exhibit pain when the fractured area is touched by pulling away, crying out or attempting to bite the handler.

- **Cause** - Most fractures in ferrets are caused by being stepped on or run over by a wheeled object (car, bike, etc.). Other causes are falling, being dropped or fighting with a larger species of animal.
- **Action** - If you suspect that your ferret has a broken bone, put the pet in a small box or carrier to restrict movement. It is better to leave your pet in a container so that he/she can find the most comfortable position rather than holding the pet continuously. Do not attempt to splint the bone because you will cause more damage, stress and pain to the ferret who will aggressively fight your attempts. In rare occasions, the broken bone ends may protrude through the skin. Cover the area, if you can, with sterile gauze and a light wrap, however don't waste too much time in this attempt to avoid undue stress to your pet. Broken bones of the extremities are painful, but not immediately life threatening and should be seen as soon as possible by your veterinarian. Broken bones of the spine, pelvis, ribs or head are much more serious and can be life threatening. Handle your pet as little as possible and get veterinary attention immediately.

This information should only be used as a guideline.

HOFA recommends obtaining the advice of a veterinarian.