

Sugar Glider Medical Reference

Listed here are many ailments and problems common to captive gliders and owners. The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed veterinarian should be consulted for diagnosis and treatment of any and all medical conditions.

Aflatoxicosis:

A hepatic (liver) disease caused by ingestion of aflatoxins, which are toxic metabolites produced by certain fungi in/on foods and feeds. At highest risk for contamination are corn, peanuts, and cottonseed. Aflatoxins are also carcinogenic (cancer causing). Sugar gliders can contract aflatoxicosis by eating crickets who have been fed contaminated corn, or eating peanuts.

Causes:

- ▶ Ingesting contaminated corn, peanuts, or insects who have ingested contaminated feed

Prevention:

- ▶ Research insect suppliers and find out what kind of feed is used
- ▶ Ask other glider owners knowledgeable about aflatoxicosis prevention where they get their insects
- ▶ Don't feed peanuts to sugar gliders.

Signs and Symptoms:

- ▶ Loss of appetite
- ▶ Anemia
- ▶ Jaundice
- ▶ Lethargy
- ▶ Gastrointestinal dysfunction (bowel problems, diarrhea)

Treatment:

- ▶ If caught in time, aflatoxicosis is reversible
- ▶ Change feed immediately
- ▶ Seek veterinary care immediately. Once a sugar glider shows symptoms, death can occur within HOURS

Calcium Deficiency

Because many fruits, vegetables and proteins in a glider diet have low calcium to phosphorous ratios, many gliders experience calcium deficiency, which can lead to Hind Leg Paralysis, a potentially fatal disease.

Prevention:

- ▶ Know the calcium to phosphorous ratio of your glider diet. Phosphorous inhibits the glider's absorption of calcium into the body
- ▶ Use mammal vitamins and supplements, making sure to get a good calcium source.
- ▶ If you choose a fresh diet, be sure that you and your veterinarian develop a supplement that will create a calcium rich diet for your glider (see the SunCoast Diet)
- ▶ Feed a well-balanced, nutritious diet
- ▶ Monitor food consumption. If your gliders don't like the food, they may not eat it. A starving glider is an unhealthy glider. Make changes to accommodate this

Cat Food Complications:

The two major and potentially fatal complications gliders experience from eating cat food are lumpy jaw and intestinal blockage. Diets that are high in cat food also lead to calcium deficiency, liver problems, and, in some cases, death.

Prevention:

- ▶ NEVER feed cat food to your glider.

Constipation:

Constipation is passage of small amounts of hard, dry bowel movements. It may be difficult and painful to have a bowel movement.

Causes:

- ▶ Not enough fiber in diet
- ▶ Not enough liquids
- ▶ Lack of exercise
- ▶ Stress
- ▶ Gastrointestinal dysfunction
- ▶ Poor diet overall

Prevention:

- ▶ Provide a well-balanced, nutritious diet
- ▶ Provide fresh water at all times for your gliders
- ▶ Provide enough exercise for your gliders
- ▶ Monitor glider fecal matter to insure that stools are healthy

Signs and Symptoms:

- ▶ Straining or crying when having a bowel movement
- ▶ Decrease or lack of bowel movements

Treatment:

- ▶ Apple juice, baby food prunes, and orange juice may work as a temporary solution until veterinary assistance can be obtained
- ▶ Small amounts of mineral oil have also been effective in treating glider constipation
- ▶ Seek veterinary care as soon as possible, as this could be a sign of intestinal blockage

Contact Dermatitis:

A human condition, which is an inflammation of the skin caused by direct contact with a foreign substance. In this case, it would be the paws of your gliders.

Causes:

- ▶ A history of allergies
- ▶ The severity can vary with an individual over time
- ▶ The skin reacts to the gliders paws as allergens and triggers an immune response that inflames the skin
- ▶ Although there may be no initial reaction, repeated exposure can develop sensitivity

Prevention:

- ▶ Wear long sleeves when handling your gliders if you suspect you have an allergy
- ▶ Wash skin surfaces thoroughly after handling your gliders

Signs and Symptoms:

- ▶ A red rash limited to the area of skin that has come in contact with glider paws
- ▶ Itching of the skin in exposed areas
- ▶ Swelling in the area that had contact with the paws
- ▶ Blisters or pimple-like rash
- ▶ Tenderness or warmth in exposed area

Treatment:

- ▶ Thoroughly wash exposed area with water to remove irritants
- ▶ Apply cool compresses to relieve irritation
- ▶ Apply Hydrocortisone Cream to the affected area, being careful not to overmedicate

Dehydration:

Occurs when the body does not have enough fluids to function at an optimal level. Any dehydration is a life-threatening situation and the condition is fatal, but reversible if caught in time.

Causes:

- ▶ Fluid loss (usually through vomiting or diarrhea)
- ▶ Fluid loss due to excessive urination (as in diabetes or kidney disease)
- ▶ Strenuous activity
- ▶ Appetite loss associated with acute illness
- ▶ Inadequate water supply

Prevention:

- ▶ Always provide fresh water for your gliders at all times
- ▶ Provide your gliders a healthy, well-balanced diet to avoid illness
- ▶ Always thoroughly wash food and check for safety before giving it to your gliders
- ▶ At the first sign of any problems with your glider, seek veterinary care

Signs and Symptoms:

- ▶ Loss of fluid through vomiting or diarrhea
- ▶ Sunken eyes
- ▶ If the skin on the back stands up when you pinch it, your glider is dehydrated
- ▶ Delayed capillary refill time (when you press on the gums of your glider with your finger, the spot remains white for an extended period of time)
- ▶ Membranes lining mouth and nose lose moisture
- ▶ Decreased or absent urine output
- ▶ Constipation
- ▶ Deep or rapid breathing
- ▶ Seizures
- ▶ Lethargy

Treatment:

- ▶ Immediately administer water or Pedialyte using a needle-less syringe
- ▶ Seek medical attention immediately! This is an emergency situation. A glider can dehydrate completely and die in a matter of twelve hours

Depression:

Depression is a term that people commonly use to refer to states involving sadness, dejection, lack of self-esteem, and lack of energy. In sugar gliders, depression can lead to mental illness, self-mutilation, and death. Severe, persistent depressed mood and loss of interest or pleasure in normal activities, accompanied by decreased

energy, changes in sleep and appetite, and feelings of guilt or hopelessness are all signs of depression and/or mental illness.

Causes:

- ▶ Keeping a lone sugar glider
- ▶ Owner neglect
- ▶ Prolonged illness
- ▶ Loss of a companion

Prevention:

- ▶ Keep more than one sugar glider
- ▶ Provide your gliders with toys, a large enough cage, and play with them
- ▶ Provide your glider with a healthy, well-balanced diet
- ▶ Provide your glider with annual or bi-annual check ups at the vet to alleviate, treat, and/or prevent illness

Signs and Symptoms:

- ▶ Loss of interest in playing
- ▶ Decreased activity
- ▶ Change in sleeping patterns
- ▶ Decreased communications: no barking
- ▶ Pacing or consecutive back-flips (this is a sign of serious mental illness)

Treatment:

- ▶ Lots of love, bonding time, and attention
- ▶ Provide a glider companion for your glider
- ▶ Ensure that the glider has an enriching environment
- ▶ If things do not improve, or your glider is pacing excessively or doing consecutive back flips, seek veterinary care

Diarrhea:

The passage of an increased amount of stool. Mild diarrhea is considered to be the passage of a few loose or mushy stools. Severe diarrhea is the passage of many watery or unformed stools.

Causes:

- ▶ Viral or bacterial infection
- ▶ Stress of moving to a new home
- ▶ Parasites
- ▶ Malabsorption (lactose intolerance, intolerance to specific foods, milk protein intolerance)
- ▶ Bowel disease

Prevention:

- ▶ Provide your glider with a healthy, well-balanced diet
- ▶ Always thoroughly wash your hands before preparing glider food or handling your glider
- ▶ Keep cages well-cleaned
- ▶ Remove any uneaten food as soon as possible from the cage
- ▶ Carefully monitor stools when offering gliders a new food item. Discontinue if watery stools appear

Signs and Symptoms:

- ▶ Loose bowel movements

Treatment:

- ▶ Check to see if the diarrhea is diet-related (citrus fruits, pumpkin, and milk products are common culprits)
- ▶ If diarrhea is bad, administer Pedialyte to prevent dehydration
- ▶ Seek veterinary attention to rule out such causes as internal parasites or bacterial infection

Giardiasis:

A diarrheal illness caused by *Giardia intestinalis* (also known as *Giardia lamblia*), a one-celled, microscopic parasite that lives in the intestine of people and animals. The parasite is protected by an outer shell that allows it to survive in the environment for long periods of time. In sugar gliders, it can remain dormant for up to six months, and only manifest symptoms when the glider becomes stressed. If this happens, death can occur within hours.

Causes:

- ▶ The parasite is passed in the stool of an infected person or animal
- ▶ Accidentally swallowing something that has come in contact with the stool of a person or animal infected with *Giardia*
- ▶ Eating uncooked food contaminated with *Giardia* (such as uncooked vegetables and fruits)
- ▶ There is an increased risk of contracting the disease from daycare workers, children who attend daycare, international travelers, hikers, and swimmers

Prevention:

- ▶ Always thoroughly wash your hands
- ▶ Always thoroughly wash and/or peel fruits and vegetables before feeding them to gliders
- ▶ Do not use or ingest water that may be fecally contaminated

Signs and Symptoms:

- ▶ Change in behavior
- ▶ Lameness
- ▶ Diarrhea
- ▶ Vomiting
- ▶ Yellow tint to belly (Jaundice), indicating liver problems
- ▶ Green color to stools
- ▶ Dehydration

Treatment:

- ▶ Seek veterinary care immediately. Only a vet can properly treat giardiasis
- ▶ Have all gliders tested for presence of *giardia*
- ▶ Quarantine the animal with symptoms. Giardiasis is HIGHLY contagious
- ▶ Take special care with other animals and yourself. Wash your hands thoroughly after handling the infected glider and keep hands away from your mouth
- ▶ Clean other glider cages
- ▶ Thoroughly clean the cage and everything in it
- ▶ Follow up with the vet to insure the parasite is eradicated
- ▶ Clean the cage and items again after the follow up visit

Hind Leg Paralysis

A common symptom of *nutritional secondary hyperparathyroidism*, hind leg paralysis (HLP) is not a disease in and of itself. In this disease, low calcium levels result in calcium being leached from bone to compensate for low calcium in the bloodstream. This condition is fatal if not treated, but, in many cases, reversible.

Causes:

- ▶ Inadequate calcium absorption due to poor diet (low calcium, high phosphate, low Vitamin D) leads the glider's body to produce increased parathyroid hormone, which removes calcium from bones

Prevention:

- ▶ Always feed your gliders a healthy, well-balanced diet
- ▶ Always know the calcium to phosphorous ratio of anything you feed your gliders
- ▶ Maintain a positive calcium to phosphorous ratio in the overall diet

Signs and Symptoms:

- ▶ Paralysis
- ▶ Lethargy
- ▶ Limping
- ▶ Fractured bones
- ▶ Tremors
- ▶ Weakness
- ▶ Loss of use of hind legs or favoring one leg
- ▶ Poor gripping ability

Treatment:

- ▶ If caught in time, this disease is reversible
- ▶ Seek veterinary care immediately. Only a veterinarian can do the necessary testing and treatment plan, which may include calcium, vitamins, hospitalization, and more

Intestinal Blockage

The partial or complete mechanical blockage of the small or large intestine. The bowel is physically blocked. This most often occurs in sugar gliders when a foreign body is present in the intestines (such as wood, seeds, or millet), blocking the bowel.

Causes:

- ▶ A foreign body, such as seed husks, seeds, millet, or wood, physically blocks the intestines, allowing fecal matter to build up in the intestines

Prevention:

- ▶ Always feed your glider a healthy, well-balanced diet
- ▶ Never give gliders inexpensive dry cat food
- ▶ Moisten dry foods for easier digestion
- ▶ Steer clear of seeds, nuts and other dry foods

Signs and Symptoms:

- ▶ Abdominal fullness, bloating, or swelling
- ▶ Vomiting
- ▶ Diarrhea (if blockage is not complete)
- ▶ Breath odor
- ▶ Absence of passage of stool (when blockage is complete)

Treatment:

- ▶ Seek veterinary care immediately! If blockage is complete, surgery will be needed

Lumpy Jaw (Impacted Salivary Gland)

Lumpy jaw, or actinomycosis is an infection primarily caused by the bacterium *Actinomyces israelii*.

Infection most often occurs in the face and neck region and is characterized by the presence of a slowly enlarging, hard lump. It produces abscesses and can also infect the lungs and intestinal tract and other parts of the body and can lead to gangrene and other complications. It is fatal if left untreated.

Causes:

- ▶ Bacteria are introduced into the facial tissues by trauma, surgery, or infection. The most common cause in gliders is dental abscess

Prevention:

- ▶ Moisten dry, hard foods before feeding them to your gliders
- ▶ Do not feed low quality cat food to your gliders
- ▶ Consider that gliders were designed to eat primarily sap and other liquid foods

Signs and Symptoms:

- ▶ A swelling or hard lump appears on face, neck or chest
- ▶ Weight Loss
- ▶ Discharge draining out of the eye

Treatment:

- ▶ Seek veterinary care immediately! To eradicate the bacteria, your glider will have to get prescription medication

Stress

Stress is defined as an organism's total response to environmental demands or pressures. When stress was first studied in the 1950s, the term was used to denote both the causes and the experienced effects of these pressures. More recently, however, the word stressor has been used for the stimulus that provokes a stress response. In gliders, stress can be fatal.

Causes:

- ▶ Actual danger
- ▶ Grief or loss of a loved one (human or glider)
- ▶ Loneliness
- ▶ Illness
- ▶ Poor diet
- ▶ Thyroid problems
- ▶ Low blood sugar
- ▶ Sudden change in environment, diet, or companionship
- ▶ Overhandling during daylight hours when gliders should be sleeping

Prevention:

- ▶ Provide your gliders with a healthy, well-balanced diet
- ▶ Keep gliders in at least pairs
- ▶ Keep gliders in a large enough cage
- ▶ Do not allow other pets near your gliders
- ▶ Give your gliders at least a few hours of playtime each night
- ▶ Do not introduce new changes all at once
- ▶ If changing diet, go slowly
- ▶ Always go slowly with any change
- ▶ Keep your gliders out of places that are very noisy or full of lots of people
- ▶ Do not allow your glider to be overhandled, especially by strangers
- ▶ If you are bonding during the day with your gliders, do not disturb them. Allow them to sleep.
- ▶ When gliders experience change, give them extra attention, and watch closely for signs of illness

Signs and Symptoms:

- ▶ Diarrhea
- ▶ Vomiting
- ▶ Trembling or tremors
- ▶ Change in sleeping habits
- ▶ Loss of appetite
- ▶ Pacing, doing back flips consecutively, self-mutilation

Treatment:

- ▶ If your glider is experiencing any illness brought on by stress, seek veterinary care immediately
- ▶ Spend lots of extra quality time with your glider
- ▶ If the stress is coming because the glider is new to your home, make sure the glider has familiar surroundings (old pouch, same cage). Even if the pouch/cage is old or dirty, keep at least one item that is familiar and change slowly
- ▶ Be careful to institute diet changes slowly. Even if it is an unhealthy diet, a sudden change to a new, healthy diet could create enough stress to kill a glider. Go slowly!

Trichomoniasis

A bacterial disease caused by a flagellate organism known as trichomonas. Trichomonads are usually pear-shaped and possess anterior flagella with a recurrent anterior flagellum which is attached to the body as an undulating membrane. Trichomonas can infect birds, cattle, dogs, cats, rodents, primates, and humans, among other species.

Causes:

- ▶ Ingesting food or water contaminated with the trichomonas organism

Prevention:

- ▶ Provide fresh, filtered water at all times for your gliders
- ▶ Consider freezing fresh fruits and vegetables before serving them to gliders
- ▶ Always wash your hands before you prepare food for your gliders and before handling your gliders
- ▶ Always wash raw foods thoroughly before offering it to your gliders
- ▶ Consider freezing your insects fully before offering them to your gliders

Signs and Symptoms:

- ▶ Weight loss
- ▶ Vomiting
- ▶ Diarrhea
- ▶ Change in fecal matter: feces may be golden in color, undigested food may be passed with feces, mucus may be present in feces
- ▶ Dehydration
- ▶ Loss of appetite

Treatment:

- ▶ Quarantine the infected animal, and clean and wash the cage, toys, and anything with which the glider may have come in contact
- ▶ Seek veterinary care immediately. The vet will need to do a direct fecal smear to test for the presence of the trichomonas organism, and prescription medication will probably be given to kill the bacteria.
- ▶ Closely monitor other gliders who may have also been exposed to the organism. To be safe, get them all tested for the presence of trichomonas

