INSULINOMA (LOW BLOOD GLUCOSE)

This is a condition that generally affects older ferrets. It's when cancerous tumors grow on the pancreas causing an over-production of insulin. This causes low blood glucose. This can make the ferret feel light-headed, dizzy, lethargic, unstable, nauseous (drooling, gagging, or pawing at the mouth after drinking or eating) and not want to eat. Normal blood glucose is about 120. Treatment is usually started with a blood glucose level of 60. While it is cancer, the ferret can live a long time with proper treatment.  
  
Symptoms include: sleeping a lot, head tilted to the side, not eating well, pawing or clawing at the mouth when drinking or eating, drooling, gagging, stumbling or falling over when walking, glassy look to the eyes, eating a lot but still no energy, being nearly comatose, hind end weakness, and can't stand up well.  
  
If your ferret has these symptoms, it needs to see the vet for a blood glucose test. The vet may try to talk you into other bloodwork while there. Insist that just the blood glucose test is done to start with. If the ferret has low blood glucose, no other test may be needed.  
  
I had a ferret with a blood glucose of 110 that would become lethargic, not want to eat, etc. unless he received medication as treatment for low blood glucose. I've also had ferrets with really low blood glucose that showed barely any symptoms. Every animal is different. Treat your animal according to its symptoms. Most vets won't treat a ferret for insulinoma with blood glucose higher than 60. If your ferret is having symptoms of insulinoma with higher blood glucose, you must stand up for your ferret and make sure it gets treatment, so it feels better and is happy and healthier.  
  
Treatment for insulinoma is steroids, like Prednisone, or pancreatic surgery. Steroids are nearly always the go-to treatment. For surgery, the vet will remove any areas of the pancreas where he sees tumors growing. The pancreas is a rather large organ that has many folds in it. The tumors can be as small as a grain of salt. So, it's impossible for the vet to see every tumor to be sure all are removed. It slows down the progress of insulinoma, but you don't know by how much because you don't know how many tumors are left behind.  
  
Steroids help control the insulin in the body and keep the blood glucose at a more regulated level. I prefer Prednisolone because it’s not as hard on the liver. Medication is normally prescribed twice a day, approximately 12 hours apart. Don't worry if you must give it an hour or so early or late, just be sure the timing is at least eight hours apart.  
  
Steroid medications are hard on the stomach and MUST be given with soup to help protect the stomach. Do not just assume the ferret will eat enough kibble to protect the stomach. It won’t. The vet may prescribe Sucralfate or Carafate to protect the stomach.  
  
The medication only lasts about eight hours in the ferret’s system. After that, the ferret is sort of coasting along until the next medication. So, if your vet prescribes steroids only once a day, question the vet about it. This means the ferret will only have something in the system to control the blood glucose 1/3 of the day.  
  
If you can give extra soup after eight hours or before the 12 hours, it helps keep the blood glucose stable until time for the next medication. If you can't do this all the time, that's fine. Just try to do it when you can. It helps.  
  
If the ferret is prescribed .25 ml of steroids twice a day, I prefer to use tablets rather than liquid. As soon as the liquid hits the stomach, it can start causing damage. Tablets disintegrate slowly and travel to the intestines and, therefore, don’t cause nearly the damage to the stomach. The liquid steroid also usually has a bad taste to it, and it can be a fight to get the ferret to take it. It isn’t normally a good idea to add the liquid steroid to the soup because it can alter the taste of the soup and make the ferret not want to eat it. Since it’s important the ferret have the soup, it’s not worth the risk it will stop eating it because of the bad taste that’s been added. There are flavored liquid steroids available that help covers the bad taste.  
  
For tablets, if the ferret is on .25 ml, in a saucer or small bowl, use the back of a spoon to crush ¼ tablet into a fine powder. Add ½ teaspoon or so of salmon oil, melted coconut oil, or some other oil or paste the ferret likes. Warm some soup (not hot), then scrape the oil and crushed pill on top of the soup. The oil will make the medication float, so when the ferret is eating the soup, it eats the medicine first. (If your ferret doesn’t like salmon oil, coconut oil, or any other oil or paste, rub some on its lips four or five times a day to get it used to it.) Use a spoon to scoop up the medicine, oil, and some soup, and let the ferret lick this from the spoon. This way it’s sure to get the medicine. Soon, they will eat it all with no spoon.  
  
If there is any concern the ferret is not going to get all the medication, you may have to use liquid steroids until you can get it used to the soup with meds on top. You cannot risk the ferret not getting the medication. If you only have tablets, find a way to get the tablets with salmon oil or coconut oil into a syringe so you can squirt them into the mouth. (Always squirt the liquid in from the side of the mouth to help prevent it from being inhaled.)  
  
Ask your vet to provide you with some anti-nausea medication to have on hand. If a ferret is feeling nauseous from low blood glucose, it is not going to want to take its medication. A small dose of anti-nausea medication will let the ferret feel like eating and drinking again.  
  
If your ferret seems to be in a stupor or coma, showing signs of insulinoma and doesn’t want to take soup with meds, is nauseous (pawing at the mouth, drooling, gagging) where it doesn't want to eat or drink, or having a seizure, use a Q-tip to rub Glucose (human blood diabetes medicine), Ferretvite, Nutrical, honey, or Karo syrup on the gums. (If you don’t have a Q-tip, use your finger.) This should perk the ferret up to the point it will feel like eating soup with medication. Do NOT give this unless the ferret is unable to take food and meds on its own. Do NOT give this regularly. It can worsen insulinoma because of the high sugar content. Once you give this, it is very important to give meat baby food or ferret soup. The protein in baby food or soup will help stabilize the ferret.  
  
If your ferret is stable with medication and begins showing symptoms again or you must use anti-nausea medication or Glucose, Ferretvite or Nutrical, then you must take the ferret to the vet within a couple of days to see if the medication dosage needs to be changed. Medication may have to be increased to three times a day or a higher amount or changed to Diazoxides. **This can be life or death.**