

TOOTH CARE FOR SMALL MAMMALS

PART TWO IN A SERIES

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This month, we will discuss tooth care in Rabbits, Guinea Pigs and Chinchillas.

Rabbits, guinea pigs, and chinchillas are strict herbivores like cattle and horses. They have evolved over the ages to survive on the available vegetation in their environment - coarse grasses and weeds. These plants are very high in silicates which make them tough, like sandpaper. Since a great deal of chewing is needed to break down the coarse fibrous food, the teeth will be worn down accordingly. Herbivores cope with this by having continuously growing teeth. Their large front incisors are sharp for cutting, and the cheek teeth in the back are used for grinding.

Causes of Common Dental Problems:

Tooth problems are very common in these species. Many pet stores tell new owners to feed pellets. Most people keep the pellet bowl full at all times. Some people do a little more research and feed small amounts of hay. Many people feed several large carrots a day, or give yogurt drops or other treats on a daily basis. These situations lead directly to tooth problems! Pellets are very concentrated, and are not fibrous enough to wear down herbivore teeth properly. When pellets are available in excess, these animals fill up on them, and eat less of the high fiber grasses and hays. Treats will also cause satiation, and insufficient fiber consumption. When rabbits, guinea pigs, and chinchillas are not eating enough fiber, their teeth are not worn down properly and will grow too long. Therefore it is very important to feed herbivores properly. When we look at hay and grass, to us it doesn't look like there is any nutrition value. But that is what herbivores require. They have good bacteria in their intestine that breaks down the plant material and turns it into nutrients that these animals absorb. We may think we are being kind by feeding large amounts of pellets and giving treats like seeds, fruit, raisins, yogurt drops, and carrots, but actually we are unintentionally hurting our pets' teeth and intestinal tract.

Other common causes include trauma and heredity. Breaking an incisor tooth or suffering head trauma can upset the balance in the mouth, leading to tooth abnormalities. Even if your pet seems fine, get a vet checkup very soon after one of these events. Also, some animals are just born with bad teeth. These animals usually start having problems within the first year of life.

In guinea pigs a common cause of dental problems is lack of vitamin C. Guinea pigs cannot make their own vitamin C, so they need to acquire it in their diet. Insufficient vitamin C causes problems with bones and joints, and causes gum disease and loosening of teeth.

Common Presentations of Dental Problems:

We've just discussed the most common reasons why herbivores get tooth problems, now we will discuss what those problems are. First subtle changes occur; insufficient fiber causes the cheek teeth to become a few millimeters too high. This changes how the teeth meet and alters the forces on the teeth from chewing. When the teeth aren't meeting properly, they do not wear properly, so slight abnormalities get increasingly worse and worse. Eventually the teeth start to get sharp edges that cut into the cheeks or tongue. Incisors may overgrow, looking like elephant tusks. These animals can get pain, swelling and infection at the tooth roots secondary to overgrowth and increased forces on the teeth. Swollen or long

tooth roots can press up against bulging. This may indicate that an abscess is forming. Any lumps present in the bone or soft tissue of the face are abscesses; other causes of lumps in this area are rare. An abscess is a pocket of pus surrounded by a capsule of thick tissue. This is the body's attempt to wall off infection.

Monitor your rabbit, guinea pig, or chinchilla for a change in what they choose to eat, decrease or loss of appetite, weight loss, drooling or wetness on mouth, bad odor from mouth, lumps under jaws, one bulging eye, tearing from one or both eyes, or crooked overgrown incisors. Just because the incisors look normal and your rabbit is eating normally, doesn't mean the molars are normal also. Many animals show no signs at all, so you need to bring your pet for physical exams at least once a year.

Treatment:

Treatment of these dental problems requires the attention of a veterinarian experienced with rabbits, guinea pigs, and chinchillas. Specialized equipment is necessary. Just clipping overgrown incisors ignores problems with the cheek teeth, as well as the underlying cause. Cutting incisors with nail trimmers is not the best treatment. It can cause splitting of the tooth longitudinally, resulting in infection of the root. It also causes trauma to the tooth as well as pain from the concussive forces. Anesthesia is required for animals to allow veterinarians to work inside their mouth and visualize the full extent of the problem. Usually x-rays are necessary to evaluate the tooth roots for abnormalities. A specialized dental drill is used to trim teeth to a normal height and normal occlusion (how the teeth meet). The gums are examined for inflammation and infection. Loose teeth may need to be pulled.

Rabbits, guinea pigs, and chinchillas have thick creamy pus that does not drain well, so just lancing an abscess is not enough. The abscess capsule prevents antibiotics from getting to the infection, therefore surgical removal of the abscess is usually necessary. At the same time, we also need to treat the cause of the abscess, which almost always is due to cheek teeth overgrowing and not meeting properly. Smaller soft tissue cheek abscesses are the easiest to treat, and we can often get full resolution of the abscess. If the abscess is large, or involves a bone infection or infection around the teeth, then more invasive surgery is needed, and there is less chance of complete resolution. These cases call for the veterinarian to remove as much abnormal and infected tissue as possible, and then place antibiotic impregnated bone cement beads in the area. This allows for high concentrations of antibiotics at the site of infection, and it lasts 2-6 months or more. Recurrence of the abscess may occur if any unhealthy teeth or tissue is left. As you can see, treatment of dental problems and abscesses in rabbits, guinea pigs, and chinchillas is complicated, therefore you want to make sure that you have an experienced exotic vet.

It is important to realize that once these dental problems start, they will usually require chronic care for the life of your pet. If your pet is lucky, he or she may only need a tooth trim under anesthesia about once a year. Many of these animals need tooth trims every few months, and are on long term antibiotics and pain medicine. Some pets with jaw abscesses need multiple surgeries over their lifetime. **IF YOUR PET HAS DENTAL PROBLEMS, THEY CANNOT BE IGNORED!** Ignoring dental problems allows your pet to live a life of pain and misery, eventually starving to death. But dental problems **DO NOT** mean the pet should be euthanized. Many of these animals live happy, comfortable lives with proper and conscientious dental care.

Prevention:

Dental problems in rabbits, guinea pigs, and chinchillas can be expensive, and treatment is usually extensive. So prevention is very important. Brushing teeth will not help rabbits, guinea pigs, and chinchillas, because their problems stem from insufficient and improper tooth wear, not plaque and tartar buildup. As discussed in depth earlier, a diet high in tough fibrous foods is required to keep the teeth healthy. Therefore, feed your little herbivore large daily amounts of a good quality grass hay, like timothy, orchard grass, brome, and oat hay. Your pet should have so much hay that even though it is eating a lot of hay, it never runs out. Most pet stores carry alfalfa hay, but this is too high in calcium and protein to be fed to adult rabbits. Many stores carry timothy hay, but it is often very brown and dull. You can get good quality grass hay from rabbit rescue groups and feed stores. Feed limited amounts of a high quality, high fiber pellet: 1/8-1/4 cup per rabbit per day, 2-4 tablespoons per guinea pig or chinchilla each day. Feed green leafy vegetables ½-1 cup each day (green leaf lettuce, romaine, parsley, cilantro, escarole, dandelion greens, etc). Avoid treats like yogurt drops and seeds completely. Limit carrots to no more than a 1/2 inch long piece once a day. Wooden chew blocks are good toys, but many rabbits, guinea pigs and chinchillas don't chew on them much, and if they do, only their incisors are being utilized. Branches and leaves from citrus trees and rosebushes are an excellent high fiber treat.

Guinea pigs must receive vitamin C daily. Most guinea pig pellets claim that they are fortified with vitamin C. But vitamin C only lasts in the pellets for 6 months from the milling date, and most pelleted diets do not list the milling date. Parsley and oranges contain good amounts of vitamin C, and should be fed daily. The vitamin drops sold at petstores to be added to the water, does not have enough vitamin C in it, and it starts to degrade as soon as it is exposed to light. The best option is a vitamin tablet from Oxbow or you can buy a children's vitamin C liquid from Whole Foods or Trader Joe's, and give 1cc (50mg) to each guinea pig, every day for life. It is very hard to overdose guinea pigs on vitamin C; any excess will pass out in the urine.

Many signs are subtle until the problem is well advanced. Therefore, it is important to have yearly or more frequent physical exams done by an exotic pet veterinarian, and make sure that you ask them to check ALL of your pet's teeth, including the back teeth. Don't think tooth problems can't happen to your rabbit, guinea pig or chinchilla; a large number of these pets have subtle tooth abnormalities that start to worsen as the pet gets older, causing problems when the pet is 3-5 years old, or older.

In our next newsletter, we will talk about tooth care in pot bellied pigs, as well as the warning signs of possible tooth problems or issues in exotics. We will also provide links to a variety of online resources for information on tooth care and tooth issues.