

Dental Disease of Rabbits, Guinea Pigs, and Chinchillas

Rabbits, guinea pigs, and chinchillas frequently develop serious dental disease that at times can be life threatening. The reason for this is that these animals have teeth (hypsodont) with no anatomical roots that continuously grow. These animals have been adapted to survive eating forage that wears down teeth; therefore, the need for teeth that constantly grow. This is much different from the teeth of mammals, such as dogs, cats, and humans that have teeth (brachyodont) with true anatomical roots that do not continuously grow. The teeth of these animals grow at a fast rate. For example, a rabbit's teeth will grow 5-8 inches (12.7-20.3 cm) per year and a chinchilla's teeth will grow 2-3 inches (5.0-7.5 cm) per year. If the teeth are not allowed to wear down, they will grow to a length that makes it difficult for the animal to eat and they will starve.

Rabbits, guinea pigs, and chinchillas have teeth (incisors) in the front of their mouths and teeth (premolars and molars, also known as cheek teeth) in the back of their mouth. It is easy to see the teeth in front and identify any growth abnormalities of those teeth. However, it is not easy to evaluate the back teeth because of the limited ability of these animals to open their mouths. Proper examination of the back teeth requires special instrumentation and often sedation or anesthesia. The cheek teeth may grow in the opposite direction, a serious condition called overgrown cheek teeth roots. A radiographic (x-ray) examination of the animal's skull is required to properly evaluate this condition.

Signs that suggest that a rabbit, guinea pig, or chinchilla may have dental disease include runny eyes (epiphora), runny nose (nasal discharge), drooling, grinding of the teeth (bruxism), selective eating or not eating, and weight loss.

Dental disease in these animals can result from a variety of causes. These include a genetic or congenital defect resulting in malocclusion (improper alignment) of the teeth, traumatic injury, and improper diet. An improper diet is the single major factor involved in increasing the susceptibility of these animals to the development of dental disease and gastrointestinal disease. These animals require a diet high in fiber and low in nutrient content, such as grass hay. High fiber roughages require longer mastication (chewing) time; therefore, more wear on the teeth. This type of diet is low in energy content; therefore, these animals will eat for longer periods of time resulting in more wear on the teeth. Diets low in fiber and high in energy content will do the opposite resulting in teeth that will overgrow and the development of dental disease. Rabbits, guinea pigs, and chinchillas fed a strict diet of pellets have a high incidence of dental disease because the pellet diets are low in fiber and high in energy content. If these animals are fed too many carbohydrates, such as sugary treats, they will eat less (not to mention become obese) and develop dental disease as well as gastrointestinal disorders.

An oral examination should be part of the yearly examination for a pet rabbit, guinea pig, or chinchilla. If these types of animals develop any of the signs mentioned above, then they should be admitted for a mouth exam.