

Animal Dentistry

Veterinary Dentistry and Maxillofacial Surgery

Dr Gerhard Steenkamp

Dr Gerhard Steenkamp is one of only two veterinarians focusing only on dentistry and maxillofacial surgery in South Africa. "As part of our veterinary training we all learn how to scale, polish and extract teeth, but I wanted to focus on dentistry in particular, so I had to go overseas. I studied part time for four years in Luxemburg working side by side with specialists in the field. As one of my tutors once said 'For a dentist to extract a tooth, is admitting defeat!' So amongst other things, I learnt about orthodontics, restorative dentistry, root canal treatment, maxillofacial surgery, repairing jaw fractures, dealing with tumours of the mouth and procedures to do with the salivary glands. We only work with animals that have suffered trauma or are in pain or discomfort, we never for example, work on a cat just to give it a better profile. It's not about cosmetic surgery. If a cat's attacked it needs its canine teeth and if they're sitting in an abnormal position or causing it discomfort then we can straighten or move the tooth, to make it more comfortable and effective."



Animal dentistry started in the United States in the 1970's and has gradually developed into a separate discipline within veterinary science. Much of the research into human periodontal disease was done on animals, particularly Beagles, but it took another 30 years for people to realise that animals also need treatment for dental diseases. Today, veterinary dentists practice all over the US and Europe as well as in Australia and South America.

Gerhard Steenkamp qualified as a veterinary dentist eleven years ago. He returned to South Africa in 1998 and for a while was the only vet focussing on animal dentistry and surgery of the oral cavity. "I had a regular surgery in Cape Town once a month. But two years ago Dr Cedric Tutt returned from studying in the UK and he now covers that area. But my practice still takes me all over the country treating all kinds of animals."

Within the cat family Dr Steenkamp's worked with tigers, lions, jaguars, leopards and cheetahs. Generally his patients range from rats to elephants! "Last year I was called down to the

Knysna Elephant Park to work on an elephant that had been relocated from Etosha. Their tusks are not very good ivory and this one's tusk had broken off about 10 –15 cm in. I do a lot of work with wild animals as well as those in zoos."

In the wild, the animal has to be darted first, then a vet puts it onto an anaesthetic machine and Dr Steenkamp starts work. "Because we usually only see the animal once, the procedure has to be completed in one go. Often this takes a long time. Take a root canal treatment, humans can return again and again to the dentist and their canal is usually only about 31mm long. But in a lion it's between 120 – 140mm! Apart from the size of the animal, there're also differences in anatomy. For example tusks continue to grow throughout an elephants life."

"Wild animals often have the same problems as humans. A lot of people think that because they are wild, they eat all the right things and don't suffer from dental disease. In 1997 I made a study of a wild dog population and their dental problems were the same as domestic dogs and cats. It's just that in the wild they die much younger, so we don't see these problems to the same degree. At the Cheetah Rehabilitation programme, where the cheetahs tend to live much longer than their wild companions, I find they have the same problems associated with age and normal wear and tear on the teeth, as their domesticated cousins."

Photo by Dr Gerhard Steenkamp



Dr Steenkamp operating on a cheetah's teeth

Dr Steenkamp also works regularly with pets and has found that some of the problems he deals with could have been avoided. "I've come across Persian breeders who clip the tips of their kitten's teeth with nail clippers, maybe because they're coming out at the wrong angle. This exposes the pulp (nerves and bloodvessels on the inside of the tooth) and apart from being extremely painful for the cat, the teeth often become infected and it can cause great damage to the permanent teeth. This practice is quite common in breeders overseas. It would be much better if the cat owner sought proper dental treatment if the teeth are wrongly aligned or uncomfortable."

Today animal dentistry benefits from many of the advances made in human dentistry. "The methods are tried and tested but of course we sometimes have to adapt them to suit the different anatomy. Animals also use their teeth differently to humans. You wouldn't put a porcelain crown on a cat's tooth so it looks pretty when it smiles, one good bite and it would break! This is the exciting part of veterinary dentistry, you not only have to think about what you're going to do to the tooth but also how its going to be used and will it last!"

So what can cat lovers do, to ensure their animals don't end up in the dentist's chair? "Brushing your pet's teeth once a day is the gold standard. Ideally, breeders should start the brushing routine as soon as kittens get their teeth. Get your vet to show you how to use the brush, because it is a technique. When I was working



Photo by Dr Gerhard Steenkamp

A domestic cat with Gingival Hyperplasia (excessive gum growth)

in Britain, we had a 4 month old Ragdoll kitten come in for a dental lesson. For 40 minutes we played with her and the toothbrush, until she got used to the idea and thought of it as fun, rather than torment. Just as breeders start brushing kitten's coats early on, to get them used to it, they should also start brushing their teeth. You can start gently, using a tasty veterinary toothpaste and gradually build up to a full routine. If you suddenly start when the cat's 3 years old it can be a problem, but give it three to four weeks before you give up."

"Then again, there are some cats who'll never take to the idea. These animals need to visit the vet once a year for a dental check up and cleaning. There are also special dry food diets which have been developed and tested to help reduce the build up of plaque and tarter on the teeth. But they only reduce it, they can't take it away, so the cat still needs its annual dental visit. But they're useful if you can't get a toothbrush near the cat's mouth, without it dashing for the door!"



Photo by Dr Gerhard Steenkamp

Dr Steenkamp inspecting an elephant patient's mouth