



Dental disease

We brush our own teeth for two minutes, twice a day, and still end up going to the dentist for tooth problems. It's no wonder that our pets get dental problems after years minimal care. Dental disease is one of the most common problems seen in pets. Studies have found more than 80% percent of dogs have some stage of periodontal disease by the age of 3. Much of the dental disease and associated cost we see could be largely prevented with dental care such as brushing teeth before problems arise.

What is dental (periodontal) disease

Periodontal disease is a painful progression of damage to the gum, tooth, tooth root and jaw bone due to plaque and tartar on the teeth. You may not even notice the early stages but the damage is starting to develop, and later stages are irreversible. This is why it is crucial to start dental care before problems arise. Prevention is ALWAYS better than cure.

Food particles and bacteria collect along the gumline forming plaque. Within 3-5 days, minerals combine with the plaque and form solid tartar (or calculus) which adheres strongly to the teeth. Within the plaque/tartar is bacteria, and your pet's immune system will respond to these bacteria as a foreign invader, flooding the gum around the tooth with white blood cells. These white blood cells will kill some of the bacteria but also release enzymes which end up breaking down the gum and tissues surrounding the tooth and its root, including bone. In such away, the body's own defence system backfires, and causes inflamed gums (gingivitis), damaged dental tissue and loss of bone surrounding the tooth root. The ultimate result of this is tooth loss, but the journey to this point is long and painful. Dental disease can also increase the risk of heart, kidney and liver disease, and for small dogs and cats, can even lead to jaw fractures as the jaw is so weakened from bone loss.

Signs of dental disease

Dogs and especially cats are incredibly good at masking the signs of dental pain, and as such, it is foolhardy to make a judgement that your pet's teeth are not bothering them just because you cannot see obvious pain. Many pets will show no outward signs of pain even with advanced disease; however, this does not mean they are not experiencing it. For this reason, visual assessment of the mouth is one of the most important factors in assessing the need for dental treatment.

Periodontal disease can be categorised into stages. A full assessment of damage requires xrays and the use of a dental probe to look for signs of damage below the gumline.

- **Stage 1 (gingivitis)** mild redness/inflammation of the gums.
- **Stage 2 (advanced gingivitis)** pockets form between the gum and tooth as the attachments are damaged. This space can accumulate further plaque/tartar and bacteria to accelerate further damage. There is no significant bone involvement at this point.
- **Stage 3 (periodontitis)** periodontal pockets around the teeth extend deeper than 5mm, which means there's now bone loss around the tooth root.
- **Stage 4 (advanced periodontitis)** The bone loss around the tooth root is over 50%, and tooth extraction is the only treatment.

Sometimes you may see outward signs and these include:

- Bad breath
- Bleeding gums
- Bumps/lumps in the mouth, around the muzzle or below the eye
- Not wanting the head touched (head shyness)



- Problems picking up food/chewing on one side of the mouth
- Sneezing or nasal discharge
- pus around the tooth
- Pawing at the mouth
- Loss of appetite
- Drooling
- Irritability or depression

What can you do?

It depends how bad your pet's teeth are.

Stage 0 disease – These are healthy teeth. At this point you need to start with preventative care.

1. Brushing teeth daily with an enzymatic toothpaste – This is the BEST way to prevent future problems. If possible, use a standard bristle toothbrush rather than a rubber finger cover as the bristles will remove plaque from between the tooth and the gum. Try to brush teeth every day to prevent the plaque turning into the more stubborn biofilm and tartar.
2. Enzymatic toothpaste – If you really cannot brush your pet's teeth, applying an enzymatic toothpaste to the teeth daily is better than nothing. Try cutting a groove in a bit of carrot and squeeze toothpaste along it to coat the teeth when they eat it. Make sure it is enzymatic as normal toothpaste will not make a difference if applied to the teeth without brushing.
3. Dental diet – This is a specifically designed dry food to help with tartar build up. It is not a replacement for brushing, but every little helps and these diets can contribute to keeping teeth happy.
4. Dental chews – These can have some effect on preventing tartar but beware the added calories. Giving these daily can add on almost an extra day's worth of calories per week!
5. Supplements – Anti-plaque supplements and water additives can help but are not as effective as brushing.

Stage 1 disease – If you start caring for your pet's teeth now by brushing daily, the damage is reversible. Use an enzymatic toothpaste to have the greatest effect on minimising tartar.

Stage 2 disease – At this stage, it is best to have a scale and polish under general anaesthetic to prevent further damage. Brushing with an enzymatic toothpaste can break down very thin layers of tartar but will not make any headway on anything thicker, so it needs to be removed with the right equipment. You will ideally need to have the teeth descaled and then use ongoing dental care such as brushing to prevent them developing tartar again.

Stage 3 and 4 – Your pet needs a dental procedure under general anaesthetic. It is likely that underneath the tartar, the tooth root and the bone surrounding it have been damaged beyond repair. Brushing/dental chews/supplements will not resolve the dental disease and there is a high chance that your pet is in pain.

Animals have coped without dental care so far...why do I need to worry now?

Quite simply, things change. Modern research means we are much better at recognising signs of pain and disease in animals, and hence we are now much more proactive at recommending preventative medicine such as brushing, and earlier treatment to ease pain and suffering. If there is a way to prevent



disease, why not recommend and do it.

Ancestral wolves' teeth are more robust than domesticated dogs' teeth. That is not to say they would never fracture or develop periodontal disease; these animals in the wild would have been at risk of death from the impact of dental disease. We have bred domesticated dogs to be lovely companions and to fit with breed standards and as dental health has not been the focus of their breeding. This means modern dogs are likely to be more prone to dental disease than their ancestors. It is our role as owners to protect our dog's teeth and remedy dental disease if present.