

Looking after Your Pet's Teeth

Healthy teeth are vital for eating and grooming, and it is important to keep pets free from pain and from the many serious problems, which can be associated with infected teeth and gums. Like us, our pets suffer from plaque, tartar and periodontal disease. In fact, 85% of dogs and cats over 3 years old suffer from irreversible dental problems. The earlier we start to care for our pet's teeth, the less likely they are to have problems in later life.

What can cause dental problems?

Our pets' mouths always contain bacteria which attack the tooth surface and, along with food debris and saliva proteins, form **plaque**, a yellowish coating on the teeth. Plaque mineralises within 24-48 hours to form tartar (calculus), which is hard and brown/black in colour. If left untreated, the gums become sore and inflamed. This is called **gingivitis**.

Bad breath can be an indication of this. At this stage only ultrasonic scaling of the teeth under general anaesthetic will remove the tartar safely.

As tartar continues to build up, it covers the whole tooth surface and invades the gum space allowing bacteria to attack the tooth roots and even the jawbones.

Bacteria enter the blood and may cause infections in other areas of the body and interfere with kidney function.

It is amazing that something so simple can cause so many problems but these problems can be avoided. Additionally, chewing sticks, stones, hard bones, tennis balls and antlers may cause damage to the tooth structure and other soft tissue, and damage the enamel.

What can we do about it?

Brush your pet's teeth from an early age



(although it is never too late to start). We will show you how to do this at your puppy's or kitten's monthly visit to the surgery. Wet tinned foods do not clean and exercise the teeth and gums, so brushing is necessary, as well as offering food that helps keep the teeth clean, such as Hill's T/D. We should clean our pet's teeth daily - but three times a week is better than not at all.

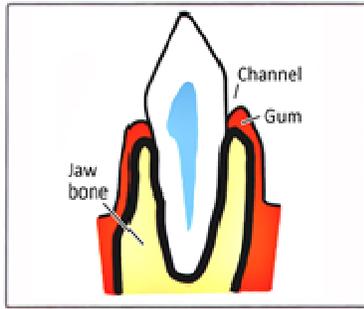
Feed Hill's t/d - a specially formulated food for adult dogs and cats that cleans tartar from teeth as it is eaten.



Use enzymatic chews and exercisers holding toothpaste to massage gums and keep teeth clean. Riggers will floss your dog's teeth whilst they are being chewed, helping to keep your dog's mouth fresh and healthy. Dentastix are helpful. All products are sold at reception.

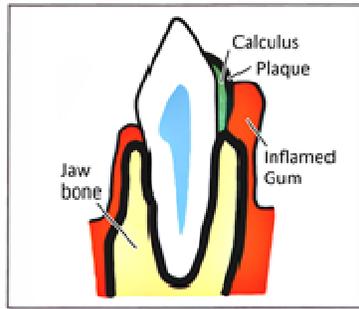
Have a regular dental check-up - when your pet reaches 6 months of age their permanent teeth should be coming through. At this age we check they have erupted correctly and review your dental homecare routine at our adolescent check. After this, we should check your pet's teeth every six months. Our trained veterinary nurses can do this and help you choose and

Healthy tooth



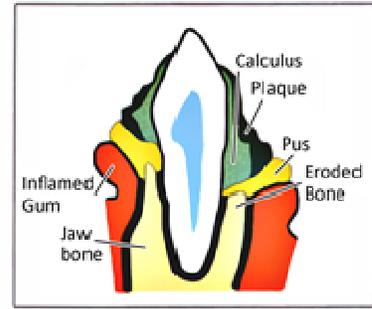
Note the channel formed between the gum and tooth.

Unhealthy tooth



Minerals seep into soft: plaque and precipitate to form a hard, roughened calculus.

Unhealthy tooth



As toxic minerals accumulate the surrounding bone begins to erode.

update your homecare routine to best suit you and your pet.

Some practical suggestions for introducing tooth brushing

Start your pet's homecare routine using just your index finger in place of the brush. This gets them used to having their mouth handled without the odd bristle feeling.

Approach your pet from the side and cuddle him to you as you brush; alternatively one person cuddles and restrains and the other performs the toothbrushing.

Start with a few teeth and gradually increase the number of teeth cleaned until the whole mouth can be cleaned in one session.

Offer a reward at the end of a session, for



example, a rawhide strip to chew.

The mouth does not need to be opened. It is the outer surfaces of the teeth, particularly where the gum and tooth meet which require brushing. Try to brush in a circular motion including the gums, and use a pet toothbrush with soft bristles and specific canine or feline toothpaste. These are malt or meaty flavored and do not foam.

Do not despair if you cannot brush your pet's teeth – there are some products that do not need to be used with brushing. Make an appointment to see our Veterinary Nurses, who will demonstrate tooth brushing, offer advice and give support on any dental queries.

Dental treatments at Mill House

All the veterinary surgeons and veterinary nurses at Mill House have undergone further training in veterinary dentistry, and we have invested in a dedicated dental treatment area with the most modern equipment for our dental work, very similar to that used in a modern human dentist's surgery. We also regard good pain relief as vital – we are sure our pets feel toothache as much as we do. All our dental work is done with your pet anaesthetised for their comfort and safety. With some pets, it may be difficult to fully assess the treatment

needed until a general anaesthetic has been given.

As well as extractions and complex procedures, it is often necessary to just clean the teeth under anaesthetic with an ultrasonic scaler. It is important that we know how much homecare you are able to give your animal before we start the dental procedure. If you can brush the teeth daily, we may well be able to keep a tooth in place that we would otherwise have to extract.

Having said that, animals cope very well with missing teeth – a healthy gum is much more comfortable than a sore tooth, when eating.

Most dental procedures are carried out as day cases – overnight hospitalisation should not be necessary. We may, however, advise a stay in the hospital if your pet has had extensive work done or feels uncomfortable.

Afterwards, the veterinary surgeon will need to see your pet to ensure everything is going well with the treatment. Do also make sure that you have regular checks with our veterinary health advisors (qualified nurses) who can help with homecare and guide you to the most appropriate way of keeping your pet's mouth healthy in the future.

Your pet's dental plan and treatment

What is your current tooth care regime? Any problems?	
Admission: Homecare plan; notes of discussion:	
Post-treatment check up with Veterinary surgeon or Veterinary nurse (Delete as nec)	Date: Outcome
Next check up with:	Date: Outcome

Important information about your pet's Dental Procedure

Before bringing your pet in

For cats and dogs, an empty stomach is essential, so give no food after 8pm the night before. Cats should be shut in so they do not hunt. Water should be freely available. Do not restrict food for other species eg rabbits, hamsters etc. If you are not sure whether your pet has eaten, please say so. Please allow your pet to pass urine and motions before coming to the surgery. For safety's sake have your dog on a lead with a well fitting collar, not a choke chain, and cats in baskets.

You will be given an appointment for admission – please be on time as late admissions mean that our operating list can be delayed. We do not open to the public before 8am, however; so do not arrive before that time, as you would have to wait outside.

If bringing your pet for a morning admission is difficult, we can hospitalise your pet the night before by prior arrangement. Do ask about this.

Where infection is present, or the mouth is sore, medication (for example antibiotics) may be given before dental work is carried out, and continued afterwards to give your pet maximum relief and comfort.

On the day

After we have admitted your pet, we give a sedative and pain relieving 'premed', which relaxes your pet and ensures that he or she will be as comfortable as possible after coming round from the anaesthetic. Dental

treatments are carried out in our dedicated dental area, and x-rays are taken if required. We use the most modern anaesthetics, which are proven to have a fast recovery time and very little 'hangover effect'. During the procedure the vet and veterinary nurse will closely monitor your pet, using advanced monitors as used in human operating theatres.

Under anaesthetic, we thoroughly examine all the teeth, and carry out any necessary dental work. Your pet's mouth is 'charted' so that we have complete records of the condition of each tooth and treatment given. We remove any calculus, and clean the teeth with an ultrasonic scaler, just like those used by human dentists and hygienists.

During the dental examination we also check for 'pockets', where the gum has come away from the tooth and food can accumulate. The gum may need cutting back, or if the pocket is very extensive the tooth may need removing to prevent a very rapid return to the diseased state. We check for 'caries' (tooth decay), fractures, and 'neck lesions' in cats (painful areas of tooth destruction). These teeth may need further dental treatment or may have to be removed.

Extensive dental work may have to be done in more than one session to minimize trauma to the patient. Often this decision has to be made at the time of the procedure, when we have been able to complete our thorough assessment under general anaesthetic.

Your pet is usually able to go home on the day of the dental procedure, and will have antibiotics and painkillers if gum disease is advanced or any extractions were needed. A check up between 48 hours and one week later will be arranged when your pet goes home - this is to check that your pet is recovering satisfactorily and to ensure that you are managing with any dental homecare you have been recommended.

Don't forget to keep up regular dental checks afterwards to prevent further permanent damage to the teeth. Our veterinary health advisors (qualified nurses) can help with homecare and guide you to the most appropriate ways of keeping your pet's mouth healthy in the future. They will demonstrate tooth brushing, offer advice and give support on any dental queries.

More about anaesthetics and pre-op blood tests

All anaesthetics and surgery carry a small risk. We minimise this risk to our patients in a number of ways:

The vet always examines a patient before giving an anaesthetic.

We offer a pre-anaesthetic blood test (screen) for all pets, which is particularly useful for picking up unsuspected problems, for example kidney or liver trouble, anaemia and diabetes that could increase the risk of the anaesthetic

Skilled patient monitoring - is the most important part of giving an anaesthetic. All cases are monitored by a professionally trained nurse throughout the procedure, using complex monitoring devices which may include measuring the blood oxygen level and pulse rate (pulse oximetry), the ECG (electrical activity of the heart) and the levels of gases the patient is breathing (capnography).

Patient comfort - patients are supported on padded tables and advanced heated mattresses, the same as those used in human hospitals. We also use warm air heated blankets where necessary for critically ill patients or long

procedures, and use our special care baby incubators where necessary.

Recovery care - Patients are kept in our recovery area, intensive care unit or on the wards until the veterinary surgeon is happy that recovery is progressing well, and only then are they allowed home.

The actual risk for your own pet will depend on these and also other health factors and should be discussed with the vet on admission. Rabbits, small pets and exotics eg reptiles always have a higher risk of problems under anaesthetic. We try to send animals home to their own familiar environment as soon as we can, and often sooner than a person would be discharged from hospital. Please follow carefully all the instructions given to you for the recovery period, and do not hesitate to ring if you are concerned or unsure about any aspect of the recovery - we always have a nurse or vet available for you to speak with. We are, of course, very happy to hospitalise patients for longer if you wish.

Blood tests for health screening

We recommend that every pet has a pre-

anaesthetic screen before we give a general anaesthetic, as kidney or liver problems, diabetes and hormonal abnormalities may increase the risk of anaesthesia. These problems may be difficult to pick up on a routine examination, but may show on a blood test. Testing is especially important in older pets (over 8 years), overweight pets and pets on certain drug treatments.

We have summarised what we measure and why below - but this is very much simplified and each individual animal's results are interpreted by the vet before being discussed with you. Samples are analysed in our own lab, with results in 1-2 hours, and a urine sample can be screened at the same time free of charge. For current costs and more details - please telephone or ask at reception.

TESTS PERFORMED IN A PRE-ANAESTHETIC SCREEN	WHAT THIS MEANS
BIOCHEMISTRY	
<i>Albumin</i>	Indicates hydration, bleeding and gut, liver and kidney disease.
<i>Globulin</i>	Levels increase with long standing inflammation or infection.
<i>Total protein</i>	Helps assess hydration. Low levels may indicate gut, liver or kidney disease, and may mean that recovery from surgery is impaired.
<i>Alkaline Phosphatase</i>	An enzyme found mainly in the liver but also in bone, kidney and the gut. Very high levels may mean damage to these organs.
<i>ALT</i>	Very high levels may suggest active liver damage.
<i>Urea</i>	Urea is produced by the liver and excreted by the kidneys. Very low levels may suggest liver disease. High levels may suggest kidney damage, dehydration or bladder damage.
<i>Creatinine</i>	High levels suggest kidney damage.
HAEMATOLOGY	
<i>Haematocrit</i>	This indicates the numbers of red blood cells and shows if animals are anaemic or dehydrated.
<i>Platelets</i>	Platelets are necessary for blood clotting, and low numbers may cause animals to bleed.
<i>White blood cells</i>	Immune cells which are important for fighting infection.

ADDITIONAL TESTS INCLUDED IN OLDER PET AND OBESITY SCREENS	WHAT THIS MEANS
<i>Cholesterol</i>	High levels may suggest a hormonal imbalance such as low thyroid levels.
<i>Phosphorus</i>	High levels may occur in kidney disease.
<i>Calcium</i>	Levels may be increased with certain tumours, disease of the parathyroid glands or kidney disease. Low levels can also occur, for example in bitches with suckling puppies.
<i>Glucose</i>	Very high levels suggest diabetes. High levels are also seen with stress, especially in cats. Very low levels are sometimes seen in liver disease, infections and with certain tumours and these animals are often weak from lack of energy.
<i>Amylase</i>	Very high levels can occur with disease of the pancreas or kidney.

Tips to collect a urine sample

Most information will be obtained from a fresh, mid stream sample, preferably taken first thing in the morning. It is important that we test it less than 4 hours after collection. Do not freeze samples, although they can be kept in the fridge. Only a small amount of urine is necessary. We can supply a sample container for a small charge. Please do not use jars which contained sugary substances, such as jam jars, as these will give inaccurate results. Small amounts of debris, such as cat litter, will not interfere with the results. Do ask one of the nurses to help if you find it difficult to collect samples – they do it every day!

Keeping in touch

We understand how worried you are when you leave your pet for an operation. Do ask to be shown round the operating department and wards if you wish to see how we work.

On the day – you are welcome to phone to check on progress rather than sit at home wondering how things are going. You will be given a direct dial telephone number on which to contact the ward nurses.

After the procedure, if you are waiting for results, for example histology on removed tissue, do give us a call if you have not heard anything within a week or so. Some results do take longer, however, if special preparation or examination is needed.

Our Recommended Dental Products

The most effective way to keep teeth clean and healthy is daily brushing



Virbac dual-ended toothbrush ultra-soft and shaped to fit dogs mouths. A specially shaped brush is also available for cats



Virbac enzymatic toothpaste, tasty poultry flavour for dogs, fish flavour for cats. Contains a patented enzymatic system, this enhances the natural defence mechanisms of the mouth. Best results when used with a toothbrush



Hills prescription diet t/d larger kibble sizes which engulfs tooth before it splits and the increased fibre content removes plaque from the tooth surface. Calcium content is controlled to limit the mineralisation of plaque. Most effective when fed as sole diet. Available for cats and dogs.

When brushing is not possible the following products will be useful



Dentagen for dogs, delicious calorie free chews for large or small dogs. Contains the RF2 enzyme to coat teeth and stop the formation and build up of tartar on the teeth.



PlaqueOff for dogs and cats a seaweed product added to food every day. It reduces levels of plaque and calculus and improves breath odour



Dentagen Aqua contains the RF2 enzyme to coat teeth and stop the formation and build up of tartar on the teeth. Simply add to their drinking water. Suitable for cats and dogs.



Vet Aquadent a solution, containing Chlorhexidine an effective anti-plaque agent and Xylitol which limits plaque and calculus, that you add to water. 6ml of Vet Aquadent needs to be added to 250ml of drinking water. Replace every 24 hours with freshly made solution. Suitable for dogs and cats.