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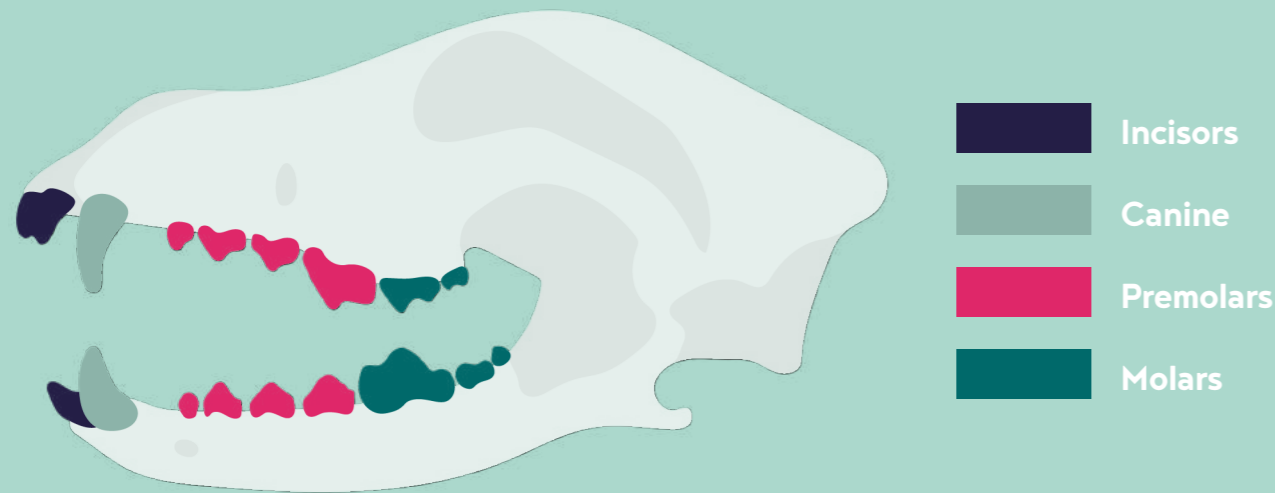
# THE SECRET TO SWEET SMELLING BREATH!



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# Let's talk about teeth!

Your dog's permanent teeth normally appear between 3 and 7 months of age. As an adult they should have 42 in total (we only have 28!)



The incisors are for grasping and scraping, the canines for tearing and the molars and premolars are for grinding.

That's an impressive set of gnashers! But, just like us, dogs need to keep their teeth clean or they become prone to dental disease. Whereas we tend to get tooth decay and cavities, dogs get periodontal disease.



**8/10 dogs have dental disease by the age of 3**

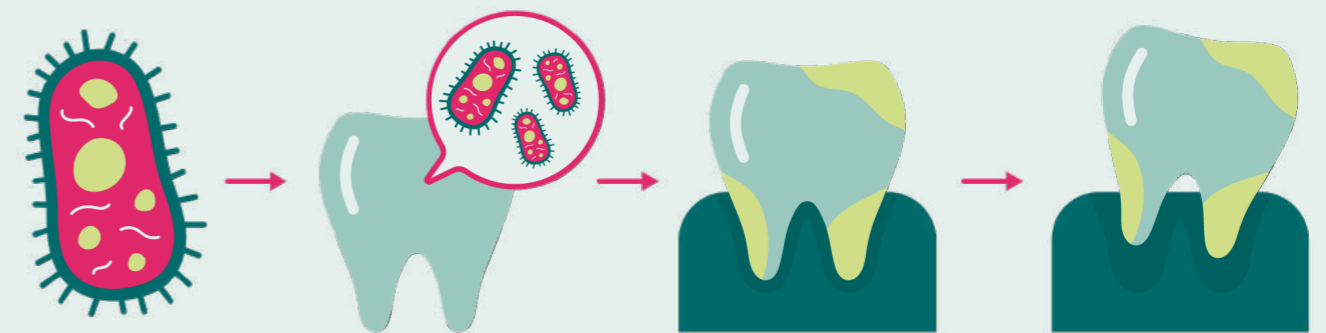
# What's the difference?

Periodontal disease is the infection and inflammation of the periodontium, which is the tissue surrounding the tooth. The dog's immune system causes the gum to become irritated and swell as it tackles the bacteria. If left untreated, the infection can spread and destroy the bone, eventually causing the tooth to fall out. This is as painful as it sounds!



# But why does this happen?

The culprit is tartar and, unfortunately, some dogs, such as small dogs, tend to suffer with this more. The process starts as bacteria in the mouth multiply and form a biofilm called plaque.



Plaque isn't easily removed, so it thickens and hardens on the tooth to become tartar. Because tartar is rough, even more plaque builds up on the surface. Once the plaque bacteria reach the gums, gingivitis develops and that's the beginning of periodontal disease.

**FACT!**

Inflammation of the gums (gingivitis) is the only truly reversible stage of periodontal disease

# What can we do to keep our dog's gnashers gleaming?

Believe it or not, there's a natural solution. Superfoods exist that, when combined, create a powerhouse of dental awesomeness.

Take **fennel**, for example. It's a member of the carrot family and has some amazing health promoting benefits!

But how does it help when it comes to our dog's teeth?

Well, saliva protects teeth by washing away food particles left in the mouth, but did you know that it can also neutralise acids? And this is important because there are acid-producing bacteria in our dog's mouth.

These nasties break down food which has been left behind and in doing so, produce acid. This can lower the pH of saliva (pH1 is very acidic, pH7 is neutral and pH 14 is very alkaline). An acidic saliva below pH7 can lead to acid erosion, enamel loss, tooth decay, and cavities. So, the more alkaline you can make your dog's saliva, the better their dental health will be!

Now for the exciting bit! Research has shown fennel to reduce the acidity of saliva and make it more alkaline [1,2,3]

**BUT** it also inhibits the growth of one of the most important bacteria in the formation of dental plaque and cavities! [4]. Even the ancient Egyptians mentioned fennel as a remedy for tooth pain!

Then there's **kelp**, which contains known to contain a bacterium known as Bacillus licheniformis. This bacteria produces an enzyme that works to protect against tooth decay by stripping bacteria away from plaque [5].

**FACT!**

Dog's saliva is more alkaline than humans'

**Parsely** is next. We might chew on a bit after eating garlic and there's a reason for that. Parsley contains compounds called monoterpenes which can counteract strong smelling foods. It's also rich in calcium and fluorine which are important for tooth enamel.

And delicious **dill**, it's tasty, because it contains flavonoids which, along with carotenoids, are responsible for the bright colours in fruit and vegetables. These flavonoids are powerful antioxidants, meaning they stabilise or even deactivate free radicals which can attack cells in the body [6,7]. Dill also has anti-inflammatory, antifungal and antimicrobial properties so it can be protective against microbial infections. And as a bonus, dill is a great source of calcium and phosphorous which can help strengthen tooth enamel.

Then we've got **chamomile** for its soothing properties for irritated gums, **peppermint** for sweet breath and to reduce bacteria in the mouth. And finally, there is **fragaria** which is found in strawberries. It can soften tartar from teeth to make it easier to remove and prevent formation of new plaque deposits.

So, there you have it! **7 superfoods** that can help to maintain excellent dental health and neutralize bad odours.

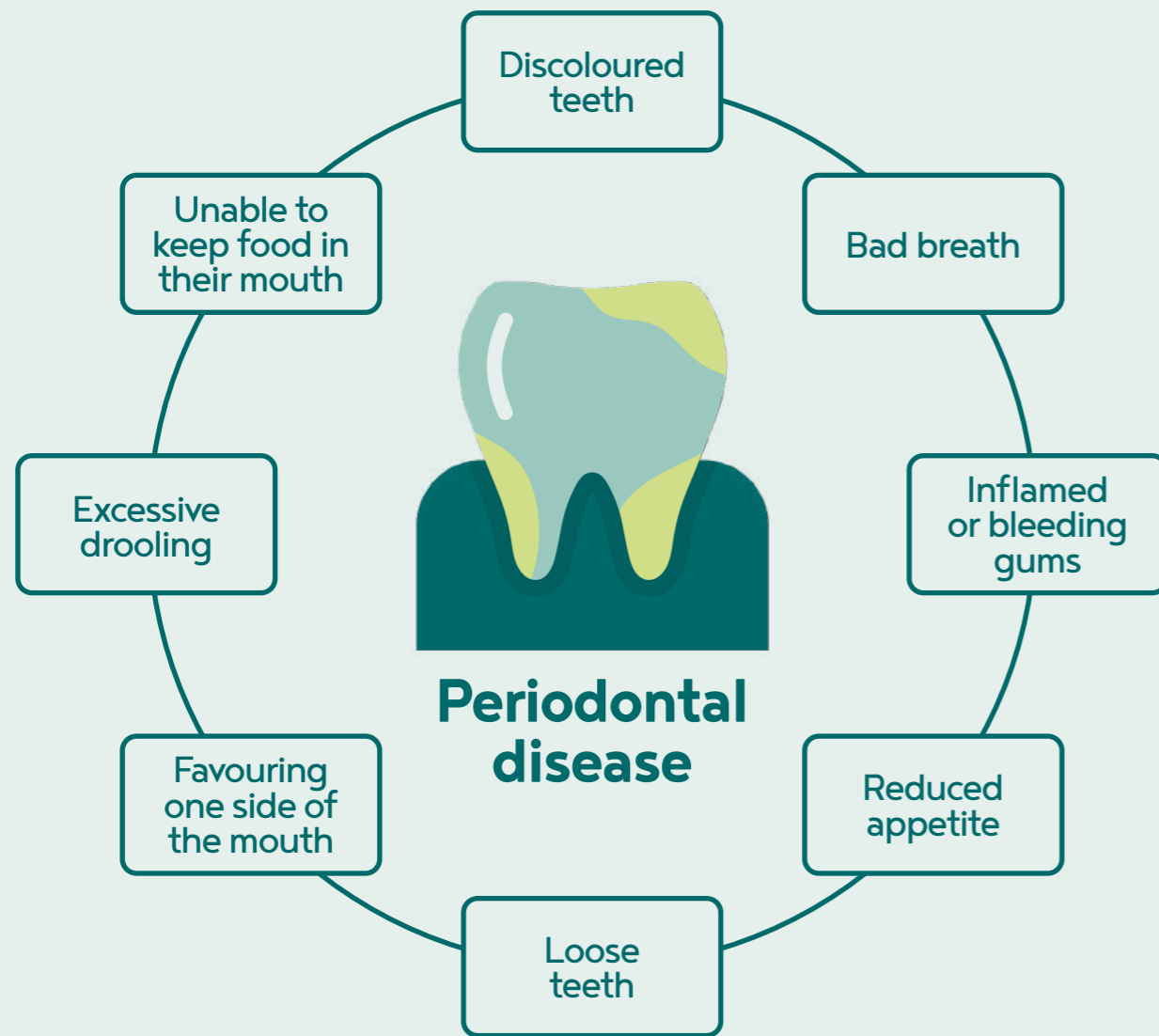
**TOP TIP!**

Avoid commercial chews made from starches which can pile on the calories and tend to get sticky as they're gnawed on, rather than scrape plaque off the teeth.



# But how do you know if your dog actually has periodontal disease?

Despite being so common, dogs rarely show obvious signs of dental disease. Here are a few things to look for:



Unfortunately, there's more to dental disease than eye-watering bad breath and loose teeth.

The bacteria can enter the blood stream and reach vital organs which means dogs with established dental disease are more at risk of liver, kidney and heart disease!



# Now let's do something about it!

Of course, if your dog is happy to let you brush their teeth, that's great! Tooth-brushing is an effective way to remove plaque and prevent build-up of tartar. But, studies have shown that tooth-brushing must take place every day in order for this to be effective [8].

## We know!

Brushing your dog's teeth every day is time-consuming and (let's face it) a bit of a chore.

If only there was a convenient way to give this to our dogs...

## We have the answer!

**Plaque-K9** is specifically formulated with all 7 supercharged ingredients to boost your dog's dental hygiene.

And the best part about this solution is that you can incorporate Plaque-K9 directly into your dog's dinner and let it do all the work!

## TOP TIP!

In addition to Plaque-K9, try using dried meat as a dental chew, such as beef tendon



Take me to Plaque-K9

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