



PRODEN PLAQUEOFF® SOFT CHEWS

Influence of ProDen
PlaqueOff® Soft Chews
on oral health in dogs



Conclusion

The studies confirm that ProDen PlaqueOff® Soft Chews, containing A.N ProDen® (*Ascophyllum nodosum*), significantly reduce plaque and tartar accumulation in dogs of various sizes. The chews improve oral hygiene and breath freshness, with results showing plaque reduction between 20.1% and 28.9% and calculus reduction from 27.2% to 40.4%. While gingival bleeding index (GBI) showed some improvements, statistical significance varied between studies.



Objective

To evaluate the effectiveness of ProDen PlaqueOff® Soft Chews in reducing plaque, tartar, and gingival inflammation in dogs of different sizes under controlled conditions.

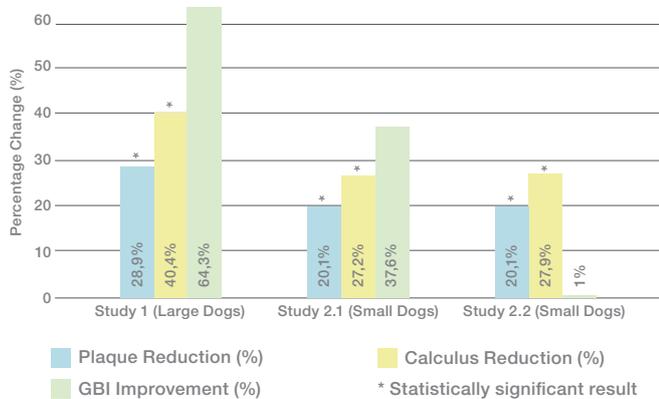
Material and Methods

Three 30-day double-blind, placebo-controlled trials were conducted on dogs of different weight categories:

- Study 1 (Large Dogs, 23.4–43.5 kg, n=30).
- Study 2.1 (Small Dogs, 3.07–10 kg, n=30).
- Study 2.2 (Small Dogs, 3.07–10 kg, n=30).

Figure 1.

Study results on plaque reduction, calculus reduction and GBI improvement for all three study groups.



Each study divided dogs into two groups, one treatment group and one control group. The treatment group were given ProDen PlaqueOff® Soft Chews daily. The control group were given only a dry diet.

Chews contained 330mg Kelp per 2.5g chew for small dogs and 660mg Kelp per 5g chew for large dogs. Effectiveness was measured using plaque index (PI), calculus index (CI), and gingival bleeding index (GBI) and were measured before and after the trial.

Results

Larger dogs showed the most significant reduction in plaque and tartar, while small dogs also benefited but with lower reductions. The Soft Chews demonstrated comparable effectiveness to ProDen PlaqueOff® Powder, with improved palatability.

Table 1. Results on dogs in Study 1 (23.4-43.5 kg)

	Plaque Index (mean +/- SD)	Calculus score (mean +/- SD)	Gingival bleeding index (mean +/- SD)
A Group (Control)	2.315 ± 0.521	0.870 ± 0.388	0.270 ± 0.319
B Group (Soft Chews)	1.644 ± 0.600	0.518 ± 0.372	0.096 ± 0.177
Statistical test	Non-parametric; Mann-Whitney test	Non-parametric; Mann-Whitney test	Non-parametric; Mann-Whitney test
Statistical significance (P value)	YES; 0.0038	YES; 0.0223	NO; 0.057;
Reduction in B vs A in %	28,9%	40,4%	64,3%


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Table 2. Results on dogs in study 2.1 (3.07–10 kg)

	Plaque Index (mean +/- SD)	Calculus score (mean +/- SD)	Gingival bleeding index (mean +/- SD)
A Group (Control)	2.781 ± 0.873	1.237 ± 0.481	0.255 ± 0.335
B Group (Soft Chews)	2.211 ± 0.530	0.900 ± 0.391	0.159 ± 0.173
Statistical test	Non-parametric Mann-Whitney test	Parametric; t-test	Parametric; t-test
Statistical significance (P value)	YES; 0.0355	YES; 0.0445	NO; 0.331;
Reduction in B vs A in %	20,1%	27,2%	37,6%

Table 3. Results on dogs in study 2.2 (3.07–10 kg)

	Plaque Index (mean +/- SD)	Calculus score (mean +/- SD)	Gingival bleeding index (mean +/- SD)
A Group (Control)	2.593 +/- 0.581	1.181 ± 0.238	0.366 ± 0.322
B Group (Soft Chews)	2.070 ± 0.539	0.851 ± 0.458	0.363 ± 0.351
Statistical test	Parametric; t-test	Parametric; t-test	Parametric; t-test
Statistical significance (P value)	YES; 0.0165	YES; 0.0198	NO; 0.976;
Reduction in B vs A in %	20,1%	27,9%	1%