

Technical Reference

PRODEN DENTALCARE® SOFTCHEWS FOR DOGS

The studies confirm that ProDen DentalCare® 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 DentalCare® 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).

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

Chews contained 330mg A.N ProDenTM per 2.5g chew for small dogs and 660mg A.N ProDenTM 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 DentalCare® Powder.









Figure 1. Study results on plaque reduction, calculus reduction and GBI improvement for all three study groups. 60 % 50 Percentage Change 40 30 20 10 Study 1 (Large Dogs) Study 2.1 (Small Dogs) Study 2.2 (Small Dogs) Plaque Reduction (%) GBI Improvement (%) Calculus Reduction (%) * Statistically significant result

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%

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%	1.0%