

GENOA UNIVERSITY

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Experimentation in plaque control in the interproximal spaces using dental floss

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TRIAL REPORT - SUMMARY

TRIAL OBJECTIVES

Verification of the efficacy of **Smart Floss**® dental floss by comparison with other marketed dental floss types.

TRIAL MATERIALS & METHODS

The supposed efficacy of **Smart Floss®** was verified by comparison with three of the most widely used and marketed types of dental floss.

The trial involved 40 patients divided into 4 groups.

The first group used a waxed dental floss (green container), similar to Oral B traditional waxed dental floss.

The second group used a monofilament dental floss (light blue container), slightly waxed, similar to **Glide Floss**.

The third used a fine dental floss (neutral container), similar to Butler Fine unwaxed floss. Finally, the fourth group used **Smart Floss**® floss (white container)

The following indices were measured in each patient at the beginning and end of the trial:

- the bacterial plaque index, applying O'LEARY's (PCR) technique, using a bi-tonal plaque indicator;
- the bleeding index, applying the (GBI) AIMANO and BAY technique.

The patients did not have professional oral hygiene care but were instructed in oral hygiene technique with the use of toothbrush and dental floss.

The patients were re-examined after two weeks.

All patients had integral anatomical papillary structure. They were not informed of the type of dental floss used.

TRIAL RESULTS

All 40 patients completed the trial.

For the **green container** (*Regular* waxed dental floss), the mean percentage reduction in the plaque index was 52.16%

For the **light blue container** (PTFE monofilament dental floss), the mean percentage reduction in the plaque index was 43.97%

For the **neutral container** (*Fine* unwaxed dental floss) the mean percentage reduction in the plaque index was 49.49%

For the **white container** (**Smart Floss**®) the mean percentage reduction in the plaque index was 69.86%

TRIAL CONCLUSIONS

All patients showed clinical improvement from the first to the second examination two weeks later, independent of the type of dental floss used.

The inter-group differences are significant, in particular with reference to the plaque index: the use of **Smart Floss**® delivered a mean reduction of almost 70%, notably superior to other flosses.

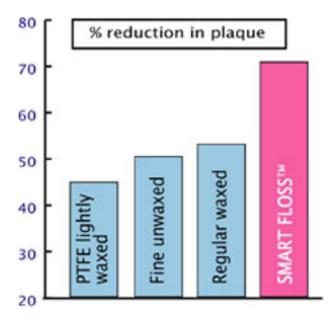
Further, **Smart Floss**® was more efficacious with respect to the other dental flosses in the removal of dental plaque in patients with moderate to severe periodontitis.

Summary:

Average reduction in plaque and gingival bleeding (percent)

Pos.	Type of floss	Container	PCR	GBI
1	Fine unwaxed	neutral	49.49%	31.79%
2	PTFE (monofilament) lightly waxed	blue	43.97%	25.08%
3	Regular waxed	green	52.16%	49.78%
4	Smart Floss®	white	69.86%	50.62%

(Note: PCR=plaque index, GBI=-bleeding index)



Observations

Smart Floss™ in superior in plaque reduction by an **average** of 43.92% compared to the other dental flosses. (Ranged from 58% greater plaque reduction than #02 to 34% greater reduction than #03).