

CLINICAL 360° PERIO TECHNIQUE

HOWTO

MANAGE ORAL BIOFILM

Using Perio Protect as a minimally invasive method for lasting oral health.

by DR. DUANE KELLER
Information provided by Perio Protect LLC.

Periodontal disease is way too common and is something that should not be ignored. When left untreated, it can lead to very costly and painful situations. One way to help fight perio disease is to use the **Perio Protect Method™**, a comprehensive method that is customized for individual patients to help manage biofilms—communities of bacteria—growing in the spaces or pockets between the teeth and gum tissue. The goal of this method is to manage oral biofilm in a minimally invasive manner and to deliver lasting oral health to the patient.

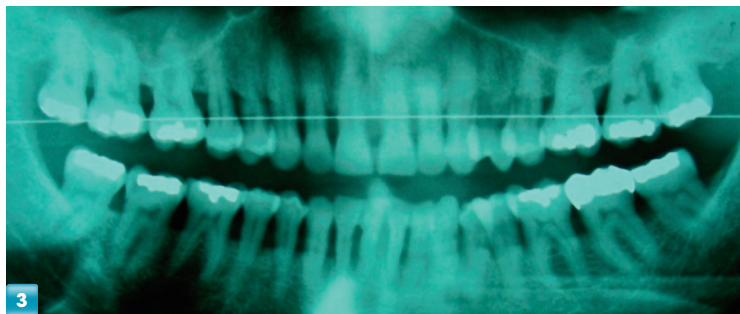
Case presentation

Initially, this patient was diagnosed with advanced periodontal disease and was treated with surgical flap procedures and bone recontouring. Subsequently, the disease returned, and the patient was treated a second time with surgical periodontal procedures, removal of infected tissue, beveling of the attached gingival and bone recontouring (Fig. 1).

The patient was evaluated some years later and found to have significant periodontal pockets (Fig. 2) that had reformed in spite of his zealous home care. A third surgical procedure was recommended with extraction of the anterior teeth as there was only about 10 to 15% of the alveolar bone remaining (Fig. 3).



11	12	13	14	15	16
MCD	MCD	MCD	MCD	MCD	MCD
3 2 4	3 2 3	4 3 4	3 2 3	3 3 4	5 3 4
3 3 5	5 2 3	4 2 3	3 2 3	3 2 4	3 3 4
B	B	B B		B	B B
B	B	B		B	B
3 2 4	3 2 3	4 3 4	3 2 3	3 3 4	5 3 4
3 3 5	5 2 3	4 2 3	3 2 3	3 2 4	3 3 4
22	21	20	19	18	17
MCD	MCD	MCD	MCD	MCD	MCD
3 2 6	3 3 4	3 2 3	2 1 2	2 3 5	3 3 5
3 2 5	3 3 3	4 2 3	3 2 5	5 4 6	5 4 5
B	B			B	B
B		B	B	B B B	B B B
3 2 6	3 3 4	3 2 3	2 1 2	2 3 5	3 3 5
3 2 5	3 3 3	4 2 3	3 2 5	5 4 6	5 4 5





AT A GLANCE

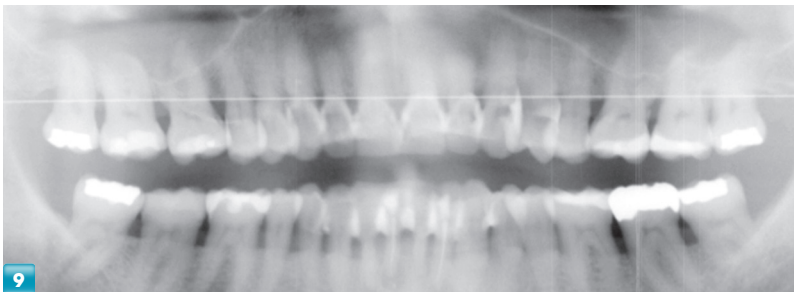
1. Significant bone loss following previous periodontal surgical procedures. The patient's tongue causes the anterior teeth to flare when pressed from the lingual.
2. Most severe periodontal conditions at the beginning of the Perio Protect treatment.
3. Generalized bone loss around the patient's teeth.
4. About 10% to 15% of bone remains around the splinted anterior teeth.

5 and 6. Maxillary and mandibular Perio Tray over the splinted teeth to direct doctor-selected medications into the periodontal pocket.

7 and 8. The patient's dentition after using the Perio Protect Method for more than 4 years.

9. The panoramic radiograph demonstrating osteogenic control and the significant bone gain in the mandibular anterior and other regions.

10. The periodontal probing after using the Perio Protect Method for more than 4 years.



9	10	11	12	13	14	15	16
MCD	MCD	MCD	MCD	MCD	MCD	MCD	MCD
2 1 2	3 2 2	2 1 3	3 1 2	3 2 3	3 1 2	3 1 3	2 2 2
2 2 2	2 2 2	2 2 2	1 1 2	2 2 2	1 2 2	2 1 2	2 2 2
2 1 2	3 2 2	2 1 3	3 1 2	3 2 3	3 1 2	3 1 3	2 2 2
2 2 2	2 2 2	2 2 2	1 1 2	2 2 2	1 2 2	2 1 2	2 2 2
24	23	22	21	20	19	18	17
MCD	MCD	MCD	MCD	MCD	MCD	MCD	MCD
1 1 2	2 1 2	2 1 3	3 1 2	2 1 3	3 1 3	2 1 3	3 3 3
1 1 1	1 1 1	1 1 1	1 1 1	2 2 3	3 1 3	2 1 3	3 1 2
1 1 2	2 1 2	2 1 3	3 1 2	2 1 3	3 1 3	2 1 3	3 3 3
1 1 1	1 1 1	1 1 1	1 1 1	2 2 3	3 1 3	2 1 3	3 1 2

STEP 01 The patient chose the custom-formed Perio Trays to deliver doctor-selected medications to the periodontal pocket. The teeth were splinted together (Fig. 4), impressions were completed, and Perio Trays were fabricated by an FDA-registered medical lab according to the scope and magnitude of the patient's conditions.

STEP 02 The patient wore the Perio Trays (Figs. 5 and 6) for multiple times a day for the first few days. As the conditions improved, he decreased his wearing to twice a day. He used a hydrogen peroxide gel to manage the oral periopathogens. Additionally, an antioxidant is used to inhibit osteoclasts and osteoclastic precursor cells as it maintained or enabled osteoblastic activity.

STEP 03 Progress is monitored closely at this point. The patient's periodontal pockets went from moderate severe (5–6 mm) to normal in a matter of weeks (Figs. 7 and 8). The teeth became more stable as additional alveolar bone was discovered to form around the teeth over time. Fig. 9 illustrates a panoramic radiograph demonstrating osteogenic control and the significant bone gain in the mandibular anterior and other regions.

STEP 04 Periodontal probing is used to chart the long-term success of the Perio Protect Method for this case. This patient has been able to control the periopathogens, regenerate lost bone and maintain his gain for more than 4 years (Fig. 10).

The patient is finally able to control the cause of disease and not suffer the ramifications of the host response to virulent pathogens. ●

PERIO PROTECT FEATURES

- Comprehensive method, customized for patient
- Combines non-invasive chemical therapy with mechanical debridement
- Manages oral biofilm for lasting oral health



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