PERIODONTAL MAINTENANCE

How, what, when, where and why

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Primary goals of comprehensive periodontal therapy include preservation of the natural dentition in comfort, function and esthetics, arresting active disease, and prevention of re-occurrence of disease. Periodontal maintenance has been defined as "an extension of periodontal therapy . . . the continuing periodic assessment and prophylactic treatment of the periodontal structures that permits early detection and treatment of new or recurring abnormalities of disease."[1] It follows that periodontal maintenance encompasses preventive, diagnostic and therapeutic measures.

Schallhorn and Snider[2] describe four categories for maintenance care: preventive maintenance care in periodontally healthy individuals; trial maintenance therapy intended to control disease while assessing borderline defects; compromise maintenance therapy; and post-treatment maintenance therapy intended to prevent recurrence of disease.

Research has shown periodontal maintenance therapy to work under various conditions. These include the following:

Gingivitis: Taken collectively, several clinical trials studying gingivitis[3-10] indicate that regular patient and professional care can lead to improved gingival health, decreased attachment loss and maintenance of the natural dentition.

After non-surgical therapy: Several studies[11-14] have indicated that maintenance care sustains the beneficial results obtained with active non-surgical therapy. Although there are some sites that can show further attachment loss, the degree of deterioration can be minimized with patient and professional maintenance care.

After surgical therapy: Several authors[15,16] have shown that post-surgical patients demonstrated recurrence of destructive periodontitis if an inadequate maintenance program was followed. Conversely, other studies[17-23] have shown that much better results were achieved when a regular maintenance program was followed.

Several studies[24-27,8] have shown that recession attachment levels can be maintained with good oral hygiene and a systematic maintenance program. Conversely, patients who discontinued maintenance had a much higher incidence of recession on non-operated facial sites.

In summary, the answer to the question: "does periodontal maintenance therapy work?" is a resounding yes. Clinical trials have shown that non-maintained patients frequently display periodontal deterioration while patients who are well-maintained will only occasionally show signs of disease recurrence.

The rationale and objectives of periodontal maintenance therapy include the following: to maintain health; to arrest disease; to slow disease progression; to provide patient contact reinforcement; to keep patients in a "holding state;" to provide further diagnostic evaluation; and to provide early recognition and treatment of disease recurrence.

COMPONENTS OF PERIODONTAL MAINTENANCE

Maintenance procedures vary and are customized to meet individual patient needs. A maintenance appointment would include the following:

- Medical history status and update.

- Oral cancer screen.
- Evaluation of periodontal status. This includes gingival inflammation, gingival exudate or bleeding, gingival architecture, pocket depth, gingival recession, tooth mobility, tooth migration, occlusion, food impaction and root sensitivity.
- Plaque control factors. These include abuse (for example, toothbrush trauma), use of disclosing solutions, customizing oral hygiene aids and other variables, such as manual dexterity, motivation, accessibility, plaque pathogenicity, host susceptibility and rate of calcification.
- Instrumentation. This includes scaling and root planing, prophylaxis, currettage, topical medicaments (for example, antimicrobial irrigation) and desensitization.
- New baseline data. This includes radiographs, charting (pocket depths, recessions, furcations and mobility), photographs and diagnostic models.
- Diagnostic and treatment planning decisions.

Several factors should be considered when customizing the periodontal maintenance interval. These include the severity of existing attachment loss, the previous treatment performed, the individual patient's healing response, plaque control, rate of plaque and calculus formation and medical status.

There are general guidelines for establishing the maintenance interval. If there is difficulty in achieving control of inflammation, the interval should be three months or less. If there is minimal inflammation present, but no apparent deterioration, then the interval should be three to six months. If there is an absence of significant pocket depth and inflammation, then the maintenance interval should be six months or more.

The appointment length should be strongly influenced by the patient's periodontal status. Other variables to consider include sensitivity requiring local anaesthetic, the need for updated radiographs, extra time for diagnosis and treatment planning, extensive re-oral hygiene requirements and rapid recalcification or stain reformation.

Most "periodontally susceptible" patients require 45 minutes to one hour for a thorough maintenance appointment.[2] Following is a hypothetical 45-minute appointment time analysis: Treatment room infection control (five minutes); greeting, seating and medical update (two minutes); periodontal assessment and charting (five minutes); plaque control (four minutes); instrumentation (25 minutes); caries, fluoride, other (four minutes).

The beneficial effects of active periodontal therapy can be maintained with periodontal maintenance when carried out on a regular basis.[2-28] It follows, therefore, that patient compliance with oral hygiene and maintenance appointments is critical for success. Wilson[29] has presented an extensive review. Interested readers are also referred to articles covering compliance with oral hygiene[30-32] and with maintenance appointments.[29,33,34] These and other studies have indicated that continuing oral hygiene instruction and reinforcement of the need for ongoing professional appointments are necessary.

There is a relatively high incidence of non-compliance, and thus patients need continued reinforcement in order to develop a positive attitude towards periodontal maintenance therapy.

Summary

The evidence is convincing that periodontal maintenance therapy sustains the beneficial effects of active periodontal therapy as well as preventing disease and ultimately tooth loss. The responsibility must be shared by both patient and professional. ◆

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