

Scientific release  
from the European  
Federation of  
Periodontology

**Rapporteurs:** Almohandes A, Bougas K,  
Gkatzidou D, Krajewski W, Lopez-Lago  
Garcia A with Abrahamsson I

Link to Original JCP article :  
<http://onlinelibrary.wiley.com/doi/10.1111/jcpe.12298/full>  
Access through EFP members page login:  
<http://www.efp.org/members/jcp.php>

**Affiliation:** Prepared by the 2nd year residents from the Postgraduate Programme in Periodontology, Specialist Clinic in Periodontology, Public Dental Service, Region of Västra Götaland and Department of Periodontology, The Sahlgrenska Academy at University of Gothenburg

Study:



## Supportive post-implant therapy: patient compliance rates and impacting factors: 3-year follow-up

Frisch E, Ziebolz D, Vach K, Ratka-Krüger P. *J Clin Periodontol.* 2014; 41: 1007-1014.

Summarised from original article with kind permission from Wiley Online Library  
Copyright © 1999-2014 John Wiley & Sons, Inc. All Rights Reserved.

**Relevant background to study:**

Following successful periodontal treatment, patients usually transfer into supportive periodontal therapy (SPT), which is known to be vital to the long-term preservation of periodontally treated teeth. Patient adherence to SPT represents an essential factor for long-term tooth preservation after periodontal therapy. Following treatment with

implant-supported restorations special oral hygiene measures are required to prevent inflammation and peri-implant diseases. Therefore, a systematic supportive post-implant therapy (SIT) programme appears necessary for the long-term prevention of peri-implant diseases.

**Study Aims:**

To evaluate patient compliance rates and influential factors in a systematic SIT programme over a 3-year period.

**Methods:**

This retrospective 3-year cohort study recruited 241 consecutive patients who had been provided with implants and implant-supported prostheses between January 2005 and December 2008, in a private practice specialising in implants. Inclusion criteria were: age  $\geq$  18 years; all treatment provided in the study centre; availability of medical data (including smoking habit); and a post-operative observational period  $\geq$  3 years.

The patients had received two-stage implant surgery by one dentist and 5 different implant systems were used. Following the delivery of implant-supported restorations, all patients received oral hygiene (OH) instructions and were scheduled for 3-monthly SIT. The necessity for

self-performed OH and compliance with SIT was emphasised. Extent of compliance was defined according to patients' attendance at SIT appointments. At the end of the 3-year observation period, all implants were clinically examined for peri-implant mucositis and peri-implantitis by probing pocket depth, pus/suppuration, plaque and bleeding on probing. In 2012 patients were retrospectively evaluated using their records, for gender; age, smoking habits, medical history, geographic distance to the study centre and complexity of the implant surgery. Regression analysis was implemented to evaluate the effect of different variables on yearly and overall compliance.

Continue . . .

*Scientific release  
from the European  
Federation of  
Periodontology*

**Results:**

Five patients did not complete the study (dropout rate: 2.1%). 236 patients with 540 implants fulfilled the inclusion criteria (137 female; 99 male). The study group contained 16 tobacco smokers, 8 patients with diabetes and 66 patients with cardiovascular disease. Before implant treatment, 140 patients had already been included in a prophylaxis programme at the same centre, whereas for 96 patients this procedure was their first contact with systematic dental prophylaxis.

Patient non-compliance rates to SIT increased through the observation period. During the 1st, 2nd and 3rd year, non-compliance rates were 13%, 19% and 34% respectively. Regression analysis

demonstrated that geographical distance to the study centre had a statistically significant influence upon SIT compliance in each of the 3 years. Tobacco smoking, diabetes and pre-existing experience in prophylaxis programmes had a statistically significant influence in only one of the 3 years. While the influence of the SIT compliance, over the whole observation period, on presence or absence of plaque, suppuration, signs of peri-implant inflammation and peri-implantitis did not reach statistical significance, a significant correlation was found between lower compliance and increased PPD as well as increased geographical distance to the study centre.

**Conclusions,  
impact and  
limitations:****Limitations:**

- Clinical and radiographical baseline data were lacking.
- There was a short follow-up period.
- The cohort was relatively small.
- A prospective design would be preferred to a retrospective design.

**Conclusions:**

- SIT programmes, with 4 visits per year, may have a high level of compliance over the first 3 years.
- A lower level of compliance was seen in patients with greater geographical distance to the study centre.
- There was a correlation between compliance to SIT and probing pocket depth values. However, no correlation between compliance and bleeding on probing was found. Further prospective studies with longer observational periods are needed.