



## Huntington Village Implant & Oral Surgeons

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#### Article 1: "Dental Implants: Peri - implantitis Overview"

Derks J, Schaller D, Hakansson J, et al: Effectiveness of implant therapy analyzed in a Swedish population: Prevalence of peri-implantitis. J Dent Res 95:43-49, 2016

#### Clinical Significance:

Peri-implantitis affected 45% of the sample (588 patients with 2,277 implants evaluated over a 9 year period) after 9 years of having at least one implant in place. Having periodontitis, four (4) or more implants and prosthetic therapy done by a general practitioner were all associated with a greater chance of developing the more severe forms of this disorder. Installing implants in the mandible and within 1.5 mm of the crestal bone were also risk factors for the development of more severe disease. Practitioners must plan their implant placement carefully and closely follow implant patients to detect the development of problems such as peri-implantitis.

#### Background:

Patients with dental implants can develop peri-implantitis, which is an inflammatory condition that affects the soft and hard tissue around implants. Supporting bone is lost, and implants can be lost if the disease remains untreated. Treatment is both inconvenient and uncomfortable for the patient and challenging for the clinician in terms of resources expended. As more patients choose to have implants, the problem of peri-implantitis will grow. The prevalence currently remains undetermined. Although studies have been done, many provide only implant-based data and do not consider the patient numbers. Others use confidence samples of limited size that may not be representative of a population. Case definitions also vary widely, making comparisons difficult. This investigation sought to determine the prevalence, extent and severity of peri-implantitis in a large, randomly selected patient sample.

#### Methods:

The patients were drawn from the data register of the Swedish Social Insurance Agency and included 4716 subjects age 45 to 54 years or 65 to 74 years who had received implant-supported restorations. The data were collected from 900 subjects randomly chosen from 2765 consenting subjects about 9 years after their implants were placed. A total of 596 patients (initially 2367 implants) came for the 9 year examination. Analysis was based on 588 subjects with 2277 implants. The evaluations were done by specialists in periodontics and included an analysis of bleeding on probing (BoP), suppuration and attachment loss of 2 mm or greater, and pocket probing depth (PPD) of 6 mm or greater. In addition, radiographs of the implants were obtained and bone loss was calculated.

#### Results:

Peri-implantitis was defined as the presence of bone loss between baseline and the 9 year examination that was greater than measurement error. Moderate/severe disease was defined as having more than 2 mm of bone loss in addition to BoP.

Peri-implantitis was found in 45% of the patients after 9 years, with 14.5% having moderate/severe forms of the disease. Average bone loss noted in the moderate/severe peri-implantitis was about 30% of the initial bone support for the implant.

Factors associated with a higher prevalence of moderate/severe peri-implantitis included periodontitis and 4 or more implants, implants of certain kinds and receiving prosthetic therapy from general practitioners. Implants in the mandible and where crown restorations margins were located 1.5 mm or closer to crestal bone at midline were also linked to a higher prevalence of more severe peri-implantitis.

#### Discussion:

With a prevalence of 45%, peri-implantitis should be considered a common complication of implant therapy. Clinicians should be aware of the factors that make it more likely to develop and plan their interventions accordingly.