



FEBRUARY, 2012 NEWSLETTER

DENTAL HYGIENE CE - DENTAL ERGONOMICS

This course will provide ergonomic and worker behavior solutions to reduce the likelihood of sustaining a low back and/or upper extremity musculoskeletal disorder (ie lumbar sprain/strain, carpal tunnel syndrome, shoulder sprain/strain, lateral epicondylitis ("Tennis Elbow"), etc.) specifically as it relates to dental professions.

Clint Stealey PT, MPT is an industrial physical therapist who graduated with a Master of Physical Therapy degree from West Virginia University in 2001. Clint has worked exclusively in the Workers Compensation arena in the Columbus, Ohio region since 2003. In addition to treating injured workers at the respective job site, he specializes in teaching small to large companies how to reduce their Workers Compensation claims and costs for back and neck-arm problems.

A NEW LOOK AT DENTAL IMPLANT LOADING PROTOCOLS

Cochrane DL et al. "A Five Year Prospective Multicenter Study of Early Loaded Titanium Implants with a Sand Blasted and Acid Etched Surface." *Int J Oral Maxillofac Implants* 2011;26:1324-1332.

Purpose: For dental implants to be successful, osseointegration must occur, but it is unknown how much time must pass for osseointegration to be established. Preclinical studies suggested that titanium implants with a sandblasted and acid-etched (SLA) surface were more osteoconductive and allowed more rapid osseointegration than machined or turned implant surfaces. The hypothesis of this study was that implants with an SLA surface could be loaded in half the conventional healing time of machined-surface implants and that, after loading, the implants would be successful for 5 years.

Materials and Methods: A prospective multicenter clinical study was conducted with 439 implants placed in native bone in 135 edentulous and partially edentulous patients. Abutments were attached to the implant with 35 Ncm of torque without countertorque after 6 weeks in type I to III bone and after 12 weeks in type IV bone. The patients were carefully evaluated for 5 years.

Results: Most implants were placed in nonsmoking, nondiabetic patients with a mean age of 55 years (range, 21 to 82 years). Eighty percent of the implants were 10 or 12 mm long, 96% had a diameter of 4.1 mm, and 78% were placed in type II or III bone. Patients maintained good oral hygiene and were satisfied with the restorations. Four implants failed, and one implant was deemed unsuccessful between surgery and the 1-year postloading visit. No implants failed or were unsuccessful in subsequent years. The cumulative survival and success rates for 385 implants in 120 patients after 5 years were 99.1% and 98.8%, respectively.

Conclusion: Implants with an SLA surface can be restored in 6 weeks for type I to III bone and 12 weeks for type IV bone. Furthermore, they can be maintained after loading for 5 years with very high success and survival rates.

SUCCESS RATES OF SHORT DENTAL IMPLANTS

Sun HL et al. Failure Rates of Short (≤ 10 mm) Dental Implants and Factors Influencing Their Failure: A Systematic Review. *Int J Oral Maxillofac Implants* 2011;26:816-825.

Purpose: The aim of this study was to evaluate the long-term failure rates of short dental implants (≤ 10 mm) and to analyze the influence of various factors on implant failure. Materials and

Methods: The PubMed and Cochrane Library databases were consulted for follow-up studies published between the years 1980 and 2009. For those studies that met the inclusion and exclusion criteria, data concerning the number of implants (≤ 10 mm) placed and lost and any related risk factors were gathered in tables and subjected to analysis. Univariate and multivariate analyses were performed.

Results: The heterogeneity and low quality of the included studies made meta-analysis impossible. A total of 35 human studies fulfilled the criteria. The studies included 14,722 implants, of which 659 failed. The total failure rate was 4.5%. The failure rates of implants with lengths of 6, 7, 7.5, 8, 8.5, 9, and 10 mm were 4.1%, 5.9%, 0%, 2.5%, 3.2%, 0.6%, and 6.5%, respectively. A majority (57.9%) of failures occurred before prosthesis connection. There was no statistically significant difference between the failure rates of short dental implants and standard implants or between those placed in a single stage and those placed in two stages (multivariate analysis). There was a tendency toward higher failure rates for the maxilla and for dental implants with a machined surface compared with the mandible and dental implants with a rough surface, respectively.

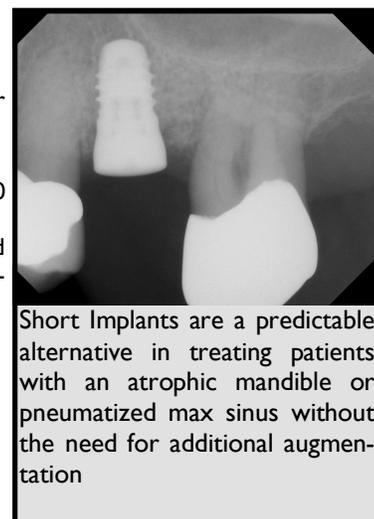
Conclusions: Among the risk factors examined, most failures of short implants can be attributed to poor bone quality in the maxilla and a machined surface. Although short implants in atrophied jaws can achieve similar long-term prognoses as standard dental implants with a reasonable prosthetic design according to this review, stronger evidence is essential to confirm this finding.

This course is offered at no cost to any member of your team and participants will receive 2.0 hours of C.E. credit

March 21st, 6:30pm

La Scala
4199 West Dublin Granville Road
Dublin, Ohio
Dinner will be Provided

To RSVP, please contact our office by March 14:
(614) 451-1122



Short Implants are a predictable alternative in treating patients with an atrophic mandible or pneumatized max sinus without the need for additional augmentation