implants seem to be more prone to failure when placed in conjunction with a GBR procedure, than longer and wider implants.

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The Straumann bone level implant in the esthetic zone: a private practice experience

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Background: In recent years, the concept of platform switching design has gained interest because it is believed to show minimal crestal bone and enhance esthetic results. Straumann® bone level implants (BLI) benefit from the Bone Control Design® based on the platform switching concept.
Aim: The aim of this study was to review and assess the outcome of implant treatments in the esthetic zone with BLI and to document there survival rates for up to 25 months after placement in a private practice setting.
Methods: A retrospective review and an outcomes assessment of BLI placed in the esthetic zone between January 2008 and July 2009 in a private practice were conducted. Implants were assessed by chart review and clinical review. Data were collected relative to patient age, gender, implant diameter, implant length and anatomic location of implants. Clinical review consisted of mobility testing, soft tissue evaluation, prosthetic evaluation and radiographic evaluation.
Results: Thirty-six patients were treated with a total of 48 BLI. Two different endosteal diameters were used: 17 implants of 3.3 mm diameter and 31 implants of 4.1 mm diameter. Implants of three different lengths were inserted: one implant of 14 mm, 30 implants of 12 mm and 17 implants of 10 mm. The implants position covered the following anatomic locations: maxillary central incisors (21 implants), maxillary lateral incisors (10 implants), maxillary canines (four implants), maxillary premolars (five implants) and mandibular incisors (eight implants). The follow-up period ranges from 7 to 25 months and all implants have at least 3 months of loading/function. Within the limits of this timeframe the survival rate is 100%.
Conclusions and clinical implications: A retrospective review of 48 BLI placed in the esthetic zone between January 2008 and July 2009 confirmed the reliability and predictability of this implant.

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Maxillary sinus augmentation by the crestal core elevation technique

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Background: Rapid crestal bone resorption following maxillary tooth loss is further accentuated in the posterior region due to pneumatization and enlargement of the maxillary sinuses. A treatment that enables preservation and augmentation of the available vertical bone at the time of maxillary tooth extractions may offer numerous therapeutic benefits.
Aim: To retrospectively evaluate the outcome of 45 sinus lift procedures in 45 patients using the crestal core elevation (CCE) technique performed concomitantly with extractions of the upper molars over an 11 years period of time.
Methods: After extractions of upper molars, core preparation was made by a calibrated 6 mm trephine bur to about 1 mm estimated distance from the sinus membrane. The trephined interradicular bone and the underlying sinus membrane were imploded into the sinus. The surgical crater and residual extraction socket were filled with either anorganic bovine bone mineral (DBBM) or with freezed-dried bone allograft (FDBA) material and was protected with a bioabsorbable collagen membrane. Flaps were coronally positioned and sutured utilizing interrupted mattress sutures so as to achieve passive primary closure. Implants were placed 4 months later. Success was recorded if an implant of at least 9 mm in length could be placed without perforating the floor of the sinus. At sites presenting with 7–9 mm bone height the bone added osteotome sinus floor elevation (BAOSFE) procedure was performed simultaneously with implant placement; these were recorded as partial success.
Results: Out of 45 procedures in 45 patients, eight sites in eight patients (17.8%) failed at the time of surgery. All implants placed in 37 patients were successful during 1–11 years follow-up period of time.
Conclusions and clinical implications: The advantages of the CCE procedure over the lateral window procedure is that it is less invasive, the corronally positioned bone plug remains attached to part of its original blood supply, and in this study all implants placed successfully integrated and restored, yielding 100% success rate of implants survival. The main limitations are core detachment or large tears of the sinus membrane during the malleting phase, resulting in this study a relatively high failure rate (17.8%).