

## **Clinical trial on osseointegration using sandblasted or sandblasted and acid-etched implants**

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The aim of this prospective and randomized trial was to evaluate the long-term success rate of sandblasted (SL) or sandblasted and acid-etched (SLA) implants retaining fixed partial prostheses. Forty four partially edentulous adult patients were consecutively recruited during 1995 and randomized to receive 2-3 SL (23 pts) or SLA (21 pts) implants in posterior mandibles or maxillae. A total of 107 (54 SL, 53 SLA) implants was placed, 62 in mandibles and 45 in maxillae. Patients were restored with a fixed partial prosthesis and revisited every 3 months during the first year; thereafter periapical radiographs were taken annually up to 5 years. A 100% five-year follow-up was obtained. At second-stage surgery, which was performed after a 4- to 6-month healing period, none of implants showed signs of mobility, peri-implant infection, or bone loss. Seven SLA implants failed within 2 years after placement, 6 because of a peri-implantitis and 1 caused by an occlusal trauma. Based on annual assessments 100/107 (93.4%) of implants were considered successful according to Albrektsson's (1986) criteria. The success rate was higher in SL (100%) than SLA (86.8%) implants ( $p < 0.01$ ). Both sandblasted and sandblasted and acid-etched implants retaining fixed partial prostheses provide predictable long-term osseointegration results, but sandblasted implants might be more successfully used.