

Highest-level evidence: meta-analysis of a single implant brand confirms clinical success of the TiUnite surface

Media release

- In the largest ever meta-analysis assessing a single implant brand, 106 prospective studies with 12,803 TiUnite surface implants and 4,694 patients were evaluated.
- At implant level, the estimated survival rate exceeded 99% at 1 year and was 95.1% after 10 years.
- Reported prevalence of peri-implantitis is low¹, and comparable with other moderately rough implant surfaces².
- Estimated marginal bone level change from implant insertion to five-year follow-up is -0.9 mm at implant level (n= 4837) and -1.0 mm at patient level (n=1393).

Zurich, Switzerland, August 10, 2017

A new systematic review and meta-analysis provides the strongest evidence to date confirming the high efficacy of Nobel Biocare implants with the TiUnite implant surface.

Published in the July/August issue of the *International Journal of Oral and Maxillofacial Implants*, the study by Professor Matthias Karl of Saarland University in Germany and Professor Tomas Albrektsson of the University of Gothenburg in Sweden, analyzed patient results from 106 peer-reviewed publications on prospective clinical studies assessing TiUnite surface implants.¹

This new meta-analysis represents the largest meta-analysis of a single brand of dental implants published to date, evaluating data on 12,803 TiUnite surface implants and 4694 patients.

The results confirm that implants with the TiUnite surface have a remarkably low early failure rate and support long-term clinical survival, with early implant- and patient-level survival rate estimates both exceeding 99% at one year, and late implant- survival rate estimate of 95.1% (and 91.5% at patient level) after 10 years.

Of 106 studies, 47 evaluated biological complications. Of these 47 papers, 19 reported cases of peri-implantitis, and only in 5.2% of patients (64/1229). Professors Karl and Albrektsson postulated that, assuming any findings of peri-implantitis in the other examined studies would have been reported by the authors, the actual rate of peri-implantitis among the 4,694 patients in all 106 studies would be as low as 1.36%. This is in line with an earlier report by Albrektsson et al. of 1-2% of well-documented implants at 10 years.²

Bone level change estimates of -0.4 mm at 1-year follow-up and -0.9 mm at 5-year follow-up (implant level) show that TiUnite is a surface which promotes healthy bone response in the first year and stable bone levels long-term.

Hans Geiselhöringer, President, Nobel Biocare said: “Nobel Biocare stands for high-quality products based on high-quality science. This meta-analysis unequivocally confirms what extensive internal testing and external validation has documented for over 15 years – that the TiUnite surface supports peri-implant health, bone maintenance and overall success, long-term.

“Such results further demonstrate the success of Nobel Biocare’s patient-centric approach to the development of products and solutions. This study serves as the strongest evidence to date that dental professionals and their patients can rely on Nobel Biocare implants with the TiUnite surface for excellent treatment outcomes.”

Access the full text article at the *International Journal of Oral Maxillofacial Implants* here: [JOMI](#) or the abstract on PubMed here: [PubMed](#). For more information about the TiUnite surface, including clinical cases and scientific studies, visit nobelbiocare.com/TiUnite.

References

1. Karl, M. and Albrektsson, T. Clinical performance of dental implants with a moderately rough (TiUnite) surface: A meta-analysis of prospective clinical studies, Int J Oral Maxillofac Implants. 2017 Jul/Aug;32(4):717-734. doi: 10.11607/jomi.5699.
2. Albrektsson, T. et al. "Peri-Implantitis": A Complication of a Foreign Body or a Man-Made "Disease". Facts and Fiction. Clin Implant Dent Relat Res. 2016 Aug;18(4):840-9. doi: 10.1111/cid.12427.

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