A Systematic Review and Meta-Analysis Confirms Excellent Clinical Performance of INICELL® Implant Surface



Makowiecki A et al, BMC Oral Health. 2019;19:79





Background

Chemical modification of dental implant surfaces, such as improving the wettability or hydrophilic properties, can have a positive impact on implant osseointegration.

INICELL® is **the superhydrophilic implant surface** from Thommen Medical that is a conditioned state of the standard sandblasted and thermal acid-etched surface.





Aim

Compare clinical outcomes between superhydrophilic surface implants from Thommen Medical (INICELL®) and Straumann (SLActive®)



Study Design

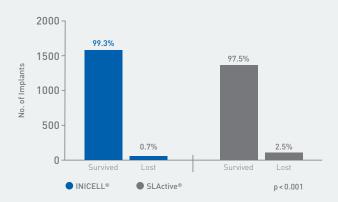
PUBLICATIONS	Included publications	INICELL® 8	SLActive®
(CIMILE)	Evaluated implants	1613	1367



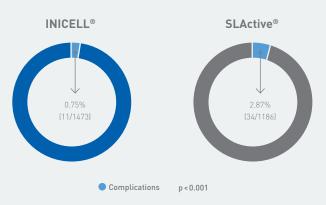
Results

High survival rate and low risk for biologic complications with INICELL® surface implants*

High survival rate with INICELL®



Few biological complications with INICELL $^{\otimes **}$



>3.5 times

lower risk of implant loss and biologic complications with INICELL® implants[†]



Key Takeaways

✓ The outcomes of this meta-analysis further highlight the high survival rate and good biologic compatibility with the Thommen Medical INICELL® implant surface⁺⁺

*Bone loss and implant stability data are not shown due to incomparability of the two implant brands. Bone loss did not exceed the established norm with both implant types and no significant differences in marginal bone loss were observed at a 12-month timepoint (p = 0.440). However, the collar height and implant design have not been accounted for in those measurements. Implant stability was measured on the ISQ Osstell scale and yielded high levels with both implant types, yet slightly increased with SLActive® (p < 0.001). Stability measurements are hardly comparable due to different implant designs **Loss of implant osseointegration as a result of infection, improper hygiene (accumulation of bacterial plaque), and peri-implantitis were counted as biological complications †The relative risk of implant loss with SLActive® versus INICELL® was 0.028/0.007=3.76 †*Despite some statistically relevant differences between the two implant lines, the authors were not able to declare one implant surface type as superior based on the available evidence. ISQ, implant stability quotient.