

1-Year Results of a Prospective Clinical Trial Confirm Positive Clinical Outcomes With INICELL® Surface

Hinkle RM et al, J Oral Maxillofac Surg. 2014; 72:1495–502

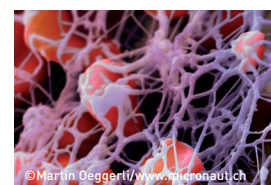


Background



INICELL® is a chemical alteration of the sandblasted and thermal acid-etched standard implant surface from Thommen Medical. Chairside conditioning results in a stable superhydrophilic implant surface.

Hydrophilic surfaces have been shown to enable more homogenous protein adsorption, leading to accelerated osseointegration.

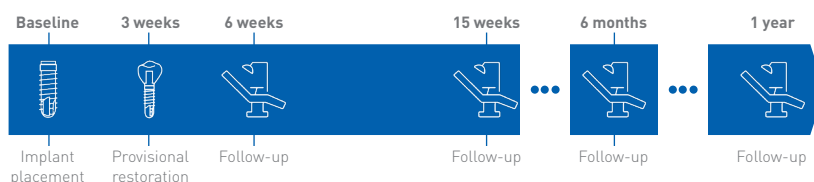


Aim



Determine the clinical outcome, implant survival, and crestal bone level changes with SPI® ELEMENT RC INICELL® implants under early loading conditions

Study Design



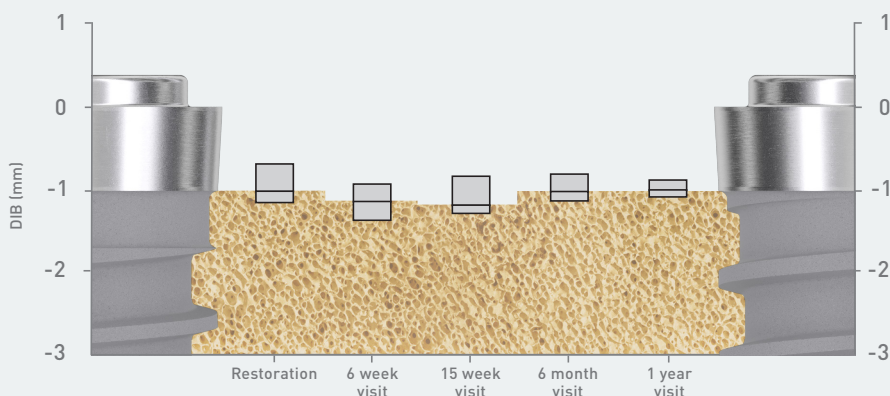
3 experienced implant surgeons | 21 patients | 23 SPI®ELEMENT RC INICELL® implants*

Results



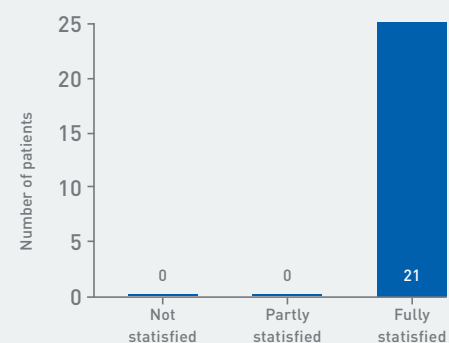
Stable marginal bone levels, 100% survival rate, and high patient satisfaction over 1 year

Stable radiographic marginal bone levels (N=23)**



The most coronal bone-to-implant contact stabilized just beneath the machined collar

High patient satisfaction after 1 year (N=21)



No reported complication in 23 assessed implants*
No implant was lost within the observation period of 1 year*

Key Takeaways



- ✓ The study confirmed that early loading of SPI®ELEMENT INICELL® implants three weeks after placement is a safe and predictable treatment option
- ✓ The authors state that the stable marginal bone levels appear to be dependent on the features, the geometry, and the surface characteristics of the SPI®ELEMENT INICELL® implant line

*From originally 23 patients and 25 implants, one patient with one implant was excluded. The patient did not take the prophylactic presurgical antibiotic leading to failed osseointegration and exclusion from the study. Another patient with one implant discontinued the study prematurely due to a broken provisional crown **Median and the interquartile range are represented.
DIB, distance implant bone; RC, regular collar.