TiUnite® – proven to perform.

Science First

TiUnite has set the standard in implant surface technology. Since its launch in 2000 it has been clinically documented in more than 190 publications with over 9600 patients, 29,000 implants and up to 10 years follow-up. In total, more than 11 million implants with TiUnite surface have been used.

- Proven longevity with 10-year clinical data and over 12 years of clinical experience.\(^6,7,11\)
- High performance under the most challenging conditions including soft bone and immediate loading.\(^1,2,9,12,13,14,16\)
- Stability maintained at a high level during the critical healing phase after implant insertion due to enhanced osseointegration and anchorage in surrounding bone.\(^3,4,5\)

A unique surface

TiUnite is a moderately rough thickened titanium oxide layer with high crystallinity and phosphorus content. Its ceramic-like properties and micropores ensure high osteoconductivity and fast anchorage to the collagen matrix.

High cumulative survival rate (CSR)

<table>
<thead>
<tr>
<th>Time after implantation</th>
<th>Survival Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term 1 year</td>
<td>98.5%(^{10})</td>
</tr>
<tr>
<td>Mid-term 5 years</td>
<td>98.3%(^{10})</td>
</tr>
<tr>
<td>Long-term 10 years</td>
<td>97.9%(^{11})</td>
</tr>
</tbody>
</table>

High stability in the critical healing phase

TiUnite maintains implant stability immediately after placement with enhanced osseointegration and anchorage in surrounding bone. This is particularly important in regions with soft bone and/or high occlusal loads, and for immediate loading protocols.

Stable marginal bone levels over the long term

Implants with TiUnite surface demonstrate excellent crestal bone stability over the long term.\(^6,7,11\) In the latest study on TiUnite, for example, mid-term change between 1 and 5 years is on average 0.0 mm; and long-term change between 1 and 10 years is -0.3 mm.\(^2\)

- Stable marginal bone levels after initial bone remodeling phase and over the long term.\(^6,7,11,15\)
- Soft tissue defense morphology behaves similarly to soft tissue around a natural tooth.\(^8\)

\(^1\) Östman et al. (2012)

Higher stability with immediately loaded implants with TiUnite surface than with the same implants with machined surface in the posterior maxilla.\(^3\)

Stable marginal bone levels after initial remodeling. Baseline adjusted at year 1.
Key studies on TiUnite®.


10 Rieber AS, Alifanz J, Jannu AS. Survival rates of implants with a highly crystalline phosphate enriched surface – a literature review [#191], in 20th Annual Scientific Congress of the European Association for Osseointegration. 2011: Athens, Greece

11 Data on file


For a comprehensive list of relevant studies visit nobelbiocare.com/scientific-evidence