WHAT IS UNICCA®?

UnicCa® is the surface of BTI implants that consists of a chemical modification with calcium ions over its triple roughness.

UNICCA® SURFACE, CERTIFIED PURENESS

BTI UnicCa® is the first implant system in the market awarded with the CleanImplant Foundation Mark, as a guarantee of the highest quality of its materials and surface.
ATTENUATED ROUGHNESS:
Enhances marginal tissue retention, reducing bacterial colonization.

HIGH ROUGHNESS:
Allows bone anchorage outside of the threads.

MEDIUM ROUGHNESS:
Guides the bone growth between the threads maintaining the implant’s mechanical properties.

TRIPLE ROUGHNESS

The triple roughness topography, depending on the area of the implant (neck, threads or valleys) adapts to the different tissues and biomechanical needs to achieve better osseointegration.
CHEMICAL MODIFICATION
WITH CALCIUM IONS

WHY CALCIUM?
Calcium is a bioinorganic ion with decisive functions throughout the bone regeneration processes. [1, 2, review]

DO NOT CONFUSE
unicCa® is not a calcium titanate nor a calcium-phosphate/hydroxyapatite coating.

Recent studies demonstrate that implants with the unicCa® surface obtain significantly higher osseointegration rates in less time. [3]
WHAT ARE THE RESULTS OF THE UNICCA® SURFACE?

1. **UNICCA® IS ELECTROPOSITIVE, CLEAN AND SUPERHYDROPHILIC**
   -> **benefit:** it immediately initiates the regenerative process [4-7].

2. **UNICCA® IMPROVES PERI-IMPLANT BONE STABILITY**
   -> **benefit:** reduces implant failure. (15)

3. **UNICCA® MINIMIZES BACTERIAL ADHESION**
   -> **benefit:** the attenuated roughness in the coronal area along with the use of Endoret® (PRGF®) significantly reduces the bacterial colonization (in vitro study). (16)

4. **UNICCA® STIMULATES OSTEOGENIC ACTIVITY**
   -> **benefit:** bone forming cells synthetize significantly, resulting in a greater extracellular matrix (in vivo and in vitro studies) [6, 8-11]

5. **UNICCA IS OSTEOGENIC: INDUCES THE FORMATION OF BONE TISSUE**
   -> **benefit:** accelerates and improves osseointegration (in vivo studies). [2, 6, 12, 13]

   **IN LOW DENSITY BONE** [13]

   **IN POORLY VASCULARIZED BONE** [6]

   **COMBINATION OF UNICCA® WITH ENDORET® (PRGF®) [13,14]**

   Accelerates early osseointegration

Surfaces subjected to human osteoblast cell tests. Adhesion measured at 3 hours, proliferation at 4 days, synthesis at 7 days.

* shows statistically significant differences (p<0.05, Student T-Test)

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* Show statistically significant differences p<0.05 between the groups (Student T-Test).
NOTE: consult your distributor for the availability of the product in the different markets.

Bibliografía

[16] Eduardo Anitua, Ricardo Tejero, Miguel Angel Pacha-Olivenza, Mana Coronada Fernandez-Calderon, Mana Delgado-Rastrollo, Mari Mar Zaldueguy; Wiley Online Library 2017 Jan, DOI: 10.1002/jibm.b.33860