

NobelBiocare launched what it calls a “New Era of Mucointegration”. It modified the NobelActive by anodizing the top 2mm gold and calls this surface “TiUltra”, claiming faster osseointegration. It also anodized its abutments gold, and calls this surface “Zeal”, claiming improved soft tissue attachment, which it calls “Mucointegration”. Nobel’s new surface treatments come with a price increase of \$21 per implant and \$7 per abutment.

How Does Anodizing Titanium Work to Effect its Color?

“Anodizing machines manipulate the oxide layer on the surface of titanium to produce an ‘**illusion of color.**’ The titanium oxide layer gives the perception of color due to an interference phenomenon, similar to a prism.

Light reflects from both the oxide layer and the underlying titanium at different angles and those reflections interfere with each other. Certain wavelengths of light cancel each other out or combine, so that the remaining light is perceived as color.”



[Video showing how a locksmith anodizes keys different colors.](#)

Review of Studies cited by Nobel:

“No significant differences in biofilm formation were observed between test and control abutments...”

“No significant histological differences in inflammation scores, epithelium length, bone-to-implant contact or bone density were observed between groups for any healing time.”

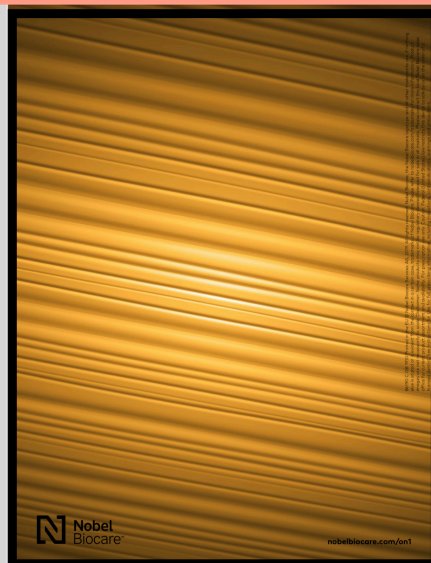
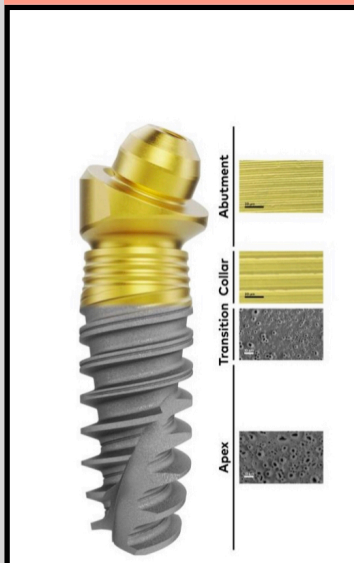
“No significant differences in radiographic bone volume, bone-to-implant contact, trabecular thickness, and crestal bone levels were observed, irrespective of healing time. “

[Read my 7 Page review of TiUltra and Zeal Marketing Claims and supporting research](#)

In this close-up picture below by NobelBiocare, anodizing the titanium surface of an abutment or implant does not effect its topography - the score lines created from machining the titanium remained unchanged. Machining creates score lines about 10

Nobel raised the price of its NobelActive Implant by \$21 with the anodizing of the implant's neck

NobelActive and Nobel Parallel Implants with TiUltra - \$520
Cover Screws- \$61; Multi-unit Abutment \$269 **TOTAL = \$850**



On1 Concept turns a conical connection into a butt joint.

