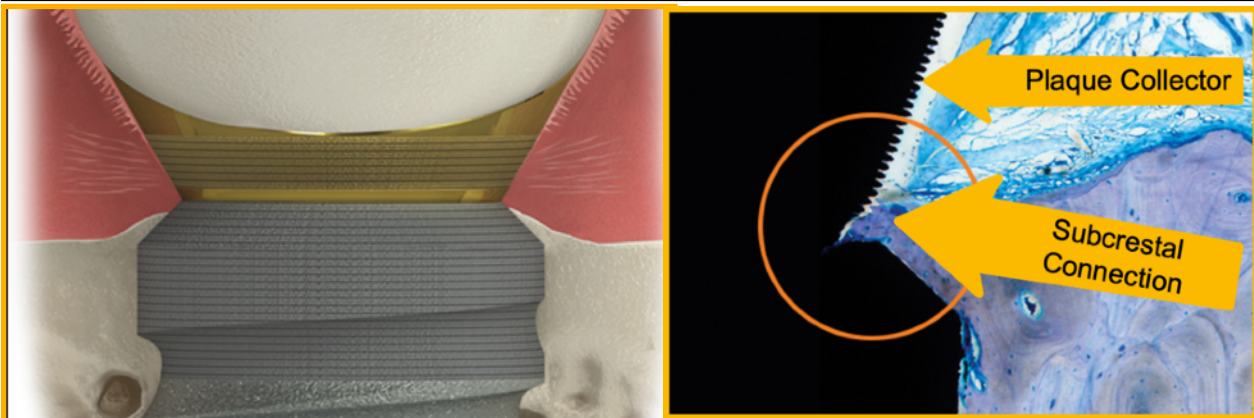


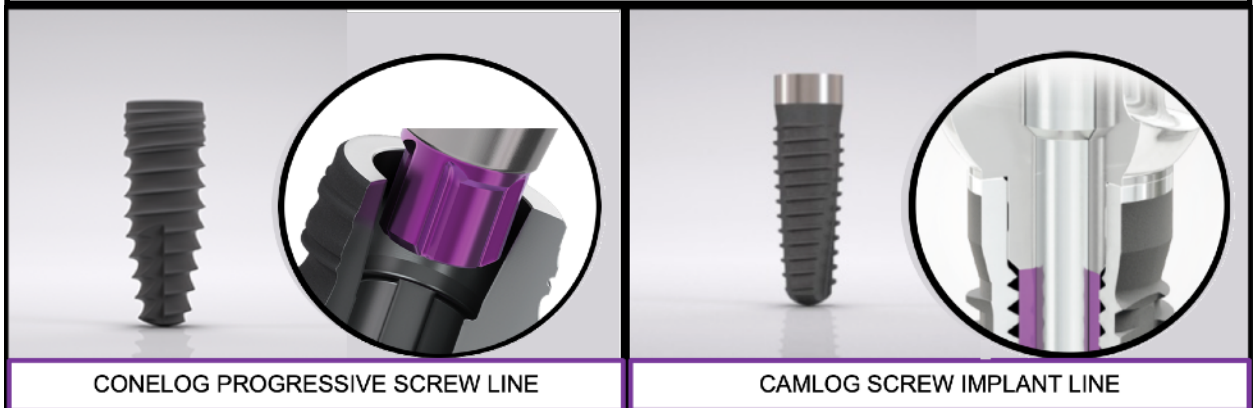
The definition of a “Unique Selling Proposition” (USP) is a feature of a product that makes it different from other similar products and that can be emphasized in advertisements for the product. It is helpful if the differentiating feature also provides a real benefit. The BioHorizons’ USP implants is their Laser-Lok micro-channels on the neck of their implants and abutments. The claim is that these grooves help to form an epithelium attachment to isolate the endosteal portion of the implant from the oral environment. There are several histological studies showing gingival fibers orientated horizontally between the grooves of the laser lines. It has been proven, dating back to the 1970s that soft tissue adheres to an implant surface absent such micro-channels. There have been no controlled, prospective clinical studies proving any clinical advantage to Laser-Loc attachment vs that demonstrated to the blasted or smooth necks of other titanium implants. Since 2008, the Laser-Loc USP has been the cornerstone of BioHorizon’s marketing. About 20 years ago, BioHorizons acquired a license from Zimmer Dental on the [Internal Conical Connection patent](#) that company had acquired when it bought Core-Vent/Paragon in 2001. In 2013 Henry Schein acquired both the German Camlog and American BioHorizons implant companies and in 2019 these two companies were merged. BioHorizons has introduced a wide selection of implant designs in response to the popularity of various features. The result is no clear statement about what features BioHorizons actually thinks are beneficial. The Camlog implants do not have Laser-lok micro-grooves, yet BioHorizons does not claim these implants are any less successful or have more bone loss.

Laser-Lok microchannels abstracts

Laser-Lok microchannels is a proprietary dental implant surface treatment developed from over 20 years of research initiated to create the optimal implant surface. Through this research, the unique Laser-Lok surface has been shown to elicit a biologic response that includes the inhibition of epithelial downgrowth and the attachment of connective tissue.^{1,2}

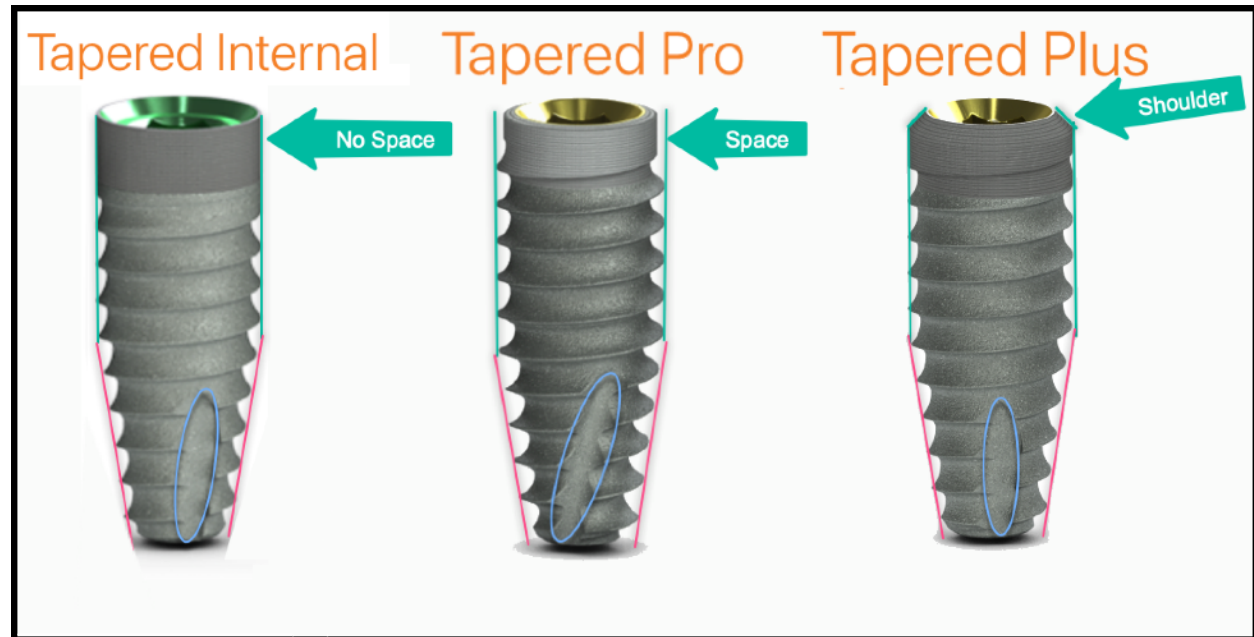


Camlog and Conelog implants have different internal connections from the standard 45 degree lead-in bevel of the BioHorizon implants and have either a blasted or smooth surface on the neck of the implant. **What this should say to dental professionals is that BioHorizons itself does not believe the Laser-Loc is essential for clinical success.**



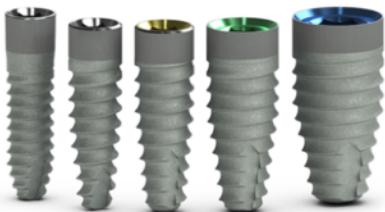
CONELOG PROGRESSIVE SCREW LINE

CAMLOG SCREW IMPLANT LINE



Tapered Internal

Tapered Internal dental implants provide excellent primary stability, maximum bone maintenance and soft tissue attachment for optimal esthetics. The Tapered Internal implant achieves these benefits from its anatomically tapered dental implant body, aggressive buttress threads and advanced Laser-Lok surface technology.



Tapered Pro Implants

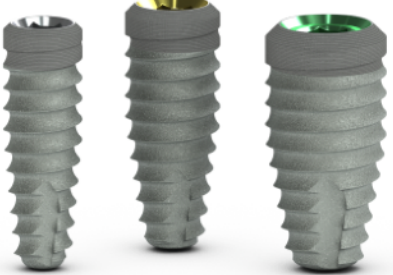
- reduced collar diameter preserves vital bone

Immediate implant treatment requires predictability. Tapered Pro implants have been developed based on over 10 years of tapered implant success. The unique design elements provide a predictable solution for immediate treatment.

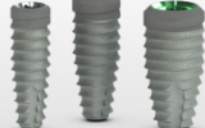
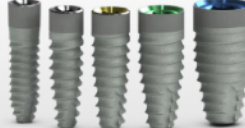

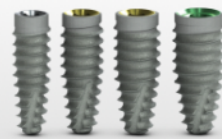






Tapered Plus Implants - Beveled Collar

The Tapered Plus dental implant system offers all the great benefits of BioHorizons highly successful Tapered Internal system plus it features a Laser-Lok treated beveled-collar for bone and soft tissue attachment and platform switching designed for increased soft tissue volume.



tapered dental implants

<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered Immediate Molar implants</p>	<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered Plus implants</p>	<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered Internal implants</p>
<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered Tissue Level implants</p>	<p style="text-align: center;">\$409</p>  <p style="text-align: center;">Tapered Pro implants</p>	<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered Short implants</p>
<p style="text-align: center;">\$399</p>  <p style="text-align: center;">Tapered PTG implants</p>	<p style="text-align: center;">\$350</p>  <p style="text-align: center;">Conelog Progressive implants</p>	<p style="text-align: center;">\$389</p>  <p style="text-align: center;">Tapered 3.0 implants</p>

BioHorizons claims that studies show improved clinical results but this has never been proven in any side-by-side controlled clinical studies. The survival rates reported in some case series studies using BioHorizons' Laser-Loc implants are similar to that reported with implants having micro-threads, blasted and even machined necks as evidenced by the published 10 year survival studies with ZimVie's Tapered Screw-Vent (Niznick Gen3) and this 5 years study with Implant Direct's Legacy (Niznick GEN4) implants that demonstrated an average of only 0.6mm of bone loss. Dental professionals placing implants are becoming increasingly concerned about the prevention and treatment of peri-implantitis around osseointegrated implants. The same ability of the Laser-Loc feature to attract soft tissue attachment is a concern with regard to the attachment of a biofilm that can contribute to peri-implantitis. There is a renewed interest in implants with a hybrid surface consisting of a smooth neck and textured body. [This was the subject of 2022 articles in the Academy of Osseointegration News by](#)

Analysis of a platform-switched, coronally micro-threaded, textured dental implant.

JOHN S. CAVALLARO, D.D., DOD, BROOKLYN, NY, USA

100 per cent success rate

Since the original Bikenmark fixture, implant designs are available which provide improved macro- and microscopic features and implant abutment connections. These features include platform switching (the implant-abutment interface is medialized relative to the periphery of the coronal aspect of the implant body), coronal micro-threads, larger body threads, textured surfaces (soluble blast media, SBM) [1], tapered bodies and internal connections. A dental implant that incorporates all of these features was analyzed in this study (Legacy 3; Implant Direct, Valencia, CA, USA). Data were collected with respect to its survival and the amount of radiographic proximal bony change that took place from its insertion to prosthetic restoration and again at five years post-restoration of the implants.

100% Success documented in 5 Year Prospective Study of Legacy Implants with SBM (HA Blasted) Surface 100% Success with 0.6mm Av. Bone Loss

Sites or if they smoked more than one half pack of cigarettes per day. Patients were taking a variety of other medications.
 Radiographic evaluation and measurement error. The author and/or surgical assistant were calibrated with respect to taking radiographs using the long cone parallel technique (Bio-Rite holding instrument, Geniege film, Egit, S). The distortion factor was less than 10 per cent. For a radiograph to be used for measurements, the implant threads had to be bilaterally discernible (2). Before commencing the assessment, the author and the assistant calibrated themselves with regard to operator measurement.
 Patients were used to approximate their lips. Patients were instructed to bite straightly on the implant.
 Patients were seen for post-operative evaluation at one to two and four to six weeks after surgery. If a secondary surgery was employed to uncover an implant, a healing abutment or prosthetic component was attached to the implant at that time. Osseointegration was verified by tapping the abutment with a metal instrument and listening for a "ringing" sound as opposed to a "thud" and by testing mobility by applying pressure against the abutment using two metal instruments in a buccolingual direction. Patients were instructed in oral hygiene techniques (brushing and flossing) five weeks after implant placement or

GEN5™



PARAGON IMPLANT COMPANY 40 YEARS OF INNOVATION

NizPLANT™

* Includes Overdenture Attachment Components



\$100

\$135

\$150*



GEN5™

GEN5+

NizPLANT™



PARAGON

Simply Smarter™

GERALD NIZNICK, DMD, MSD

40 YEARS OF INNOVATION 37 PATENTS - 4 SPECIFIC TO GEN5



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RESEARCH SUPPORTS REDUCTION OF PERI-IMPLANTITIS BY USING A HYBRID DESIGN SURFACE WITH THE IMPLANT-ABUTMENT JUNCTION SUPRA-CRESTAL

Applies to Straumann's TLX implant and Paragon's GEN5 implant BUT not the BLX

Dr. Niznick Article: AO News Vol.33 No. 2, 2022:

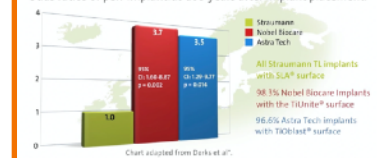
"Dr. Buser cites a Swedish 10-year study comparing three implants: Astra, NobelBiocare and Straumann's Tissue Level implant, claiming the latter exhibited significantly less peri-implantitis. Assuming part of the smooth neck of the Straumann TL implant was inserted in bone, this would give it a hybrid bone interface. It also adds the variable that the implant-abutment connection would be supra-crestal... [which] is at least as important a factor in minimizing peri-implantitis as a hybrid surface."

Dr. Michael Dard, Prof. NYU Interview:

1. [Explains peri-implantitis](#) and
2. [Discusses results of the Derks et al study](#)

Peri-implantitis in independent study

Odds ratios of peri-implantitis at 9 years after implant placement.



Video Lecture and interview of Dr. Daniel Buser, explaining importance of Hybrid Surface and how he partially submerges smooth neck of "Tissue Level" Implants

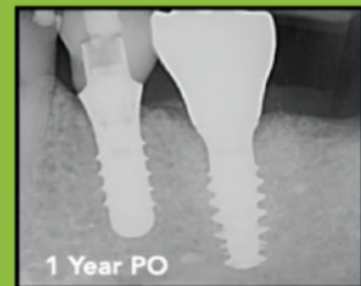
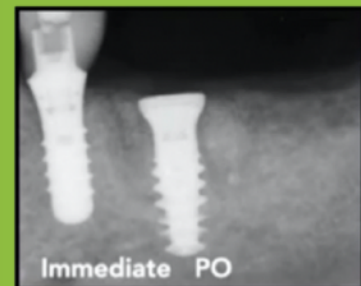
Dr. Daniel Buser explains insertion of Straumann's "Tissue Level" implant with 1.8mm of its 2.8mm smooth neck sub-crestal, leaving 1mm and the implant-abutment junction, supra-crestal.



Buser Quote on Straumann's Website:

"The Future of Implant Dentistry is with neck designs combining a smooth surface in the trans-mucosal area with a micro-rough surface inside the bone. As the Derks study showed, **moving the micro-gap away from the bone** and having a smooth surface in the peri-implant sulcus reduces the risk of peri-implant complications." [Derks 9 Year Comparative Study](#)

PARAGON'S GEN5 IMPLANT HAS A 2.5mm ANODIZED, SMOOTH NECK, CONFIGURED TO BE 1mm SUPRA-CRESTAL



Influence of Implant Placement Depth and Soft tissue Thickness on Crestal bone Stability Around Implant with and Without Platform Switching

This case control study measured early crestal bone changes around sub-crestal placed platform-switched implants surrounded by thin soft tissue and compared them with regular, matching-platform implants placed in a supra-crestal position and surrounded by thick soft tissue. After 1 year, mean bone loss was 0.28 mm (SD:0.36 mm; range: 0.1-1.63 mm) in the control group and -0.6 mm (SD:0.55 mm; range: 0.05-1.8 mm) in the test group. **Platform-switched implants placed in a subcrestal position in vertically thin soft tissues showed statistically significantly more bone loss than non-platform-switched implants placed supra-crestal with vertically thick tissues.**



Fig 2 (a) Control group patients had implants placed in a supercrestal position, and (b) test group patients had implants placed in a sub-crestal position.

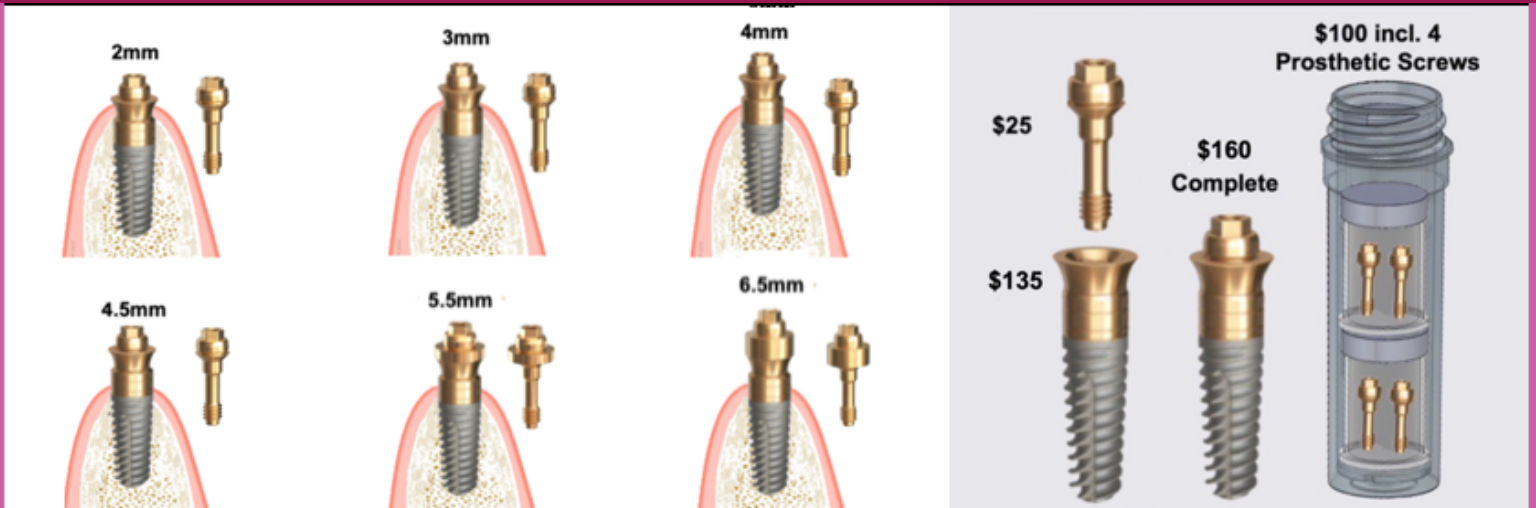
Paragon's GEN5™, GEN5+ and NizPlant™ implants have the same implant body with a 2.5 mm machined, anodized neck. Depth gauge lines at 1 mm, 2 mm and 2.5 mm from the top (Pat. Pend.), along with 2 depths of drill stops, facilitate placement level with or 1mm above the crest of the ridge. The insertion depth control, in conjunction with the ability to varying the height of the prosthetic screw, minimizes the need and cost of maintaining an inventory of abutment heights. The GEN5+ offers the additional flexibility of a 2 mm friction-fit collar that can serve as the trans-mucosal collar of an abutment or be removed for abutment connection directly to the top of the implant for unprecedented vertical flexibility.



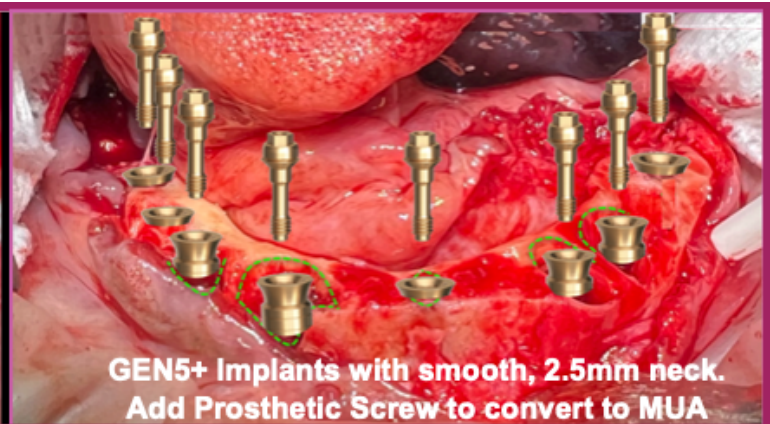
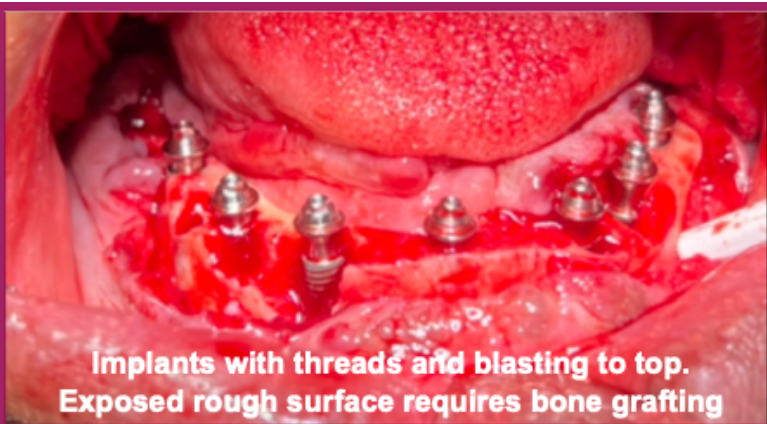
Each Paragon implant is 1 mm longer than the standard lengths of the respective Screw-Vent and Legacy implants. Paragon's surgical system includes two options of drill stops. One is for placement 1mm supra-crestal, which moves the implant-abutment junction away from the bone and creates a 1mm supra-crestal zone of titanium for undisturbed soft tissue attachment when prosthetic components are attached and removed from the implant. The other drill stop positions the implant level with the highest point on the ridge, usually on the lingual, leaving the smooth neck exposed if there is bone recession on the labial/buccal. The diameters of the drill stops and the freedom of rotation of the drills within the drill stops allow there use through surgical guide without the need for keys.



GEN5+ is a GEN5 with a Friction-Fit 2mm Extender that serves as a Healing Collar, a MUA with the addition of a Prosthetic Screw of different heights and a Platform for a Variety of Abutment Options



Simulated case (right) shows 8 GEN5+ implants replacing exposed implants (left). Little or no bone grafting needed because only smooth surfaces exposed. Attaching a Prosthetic Screw converts platform to standard MUA.



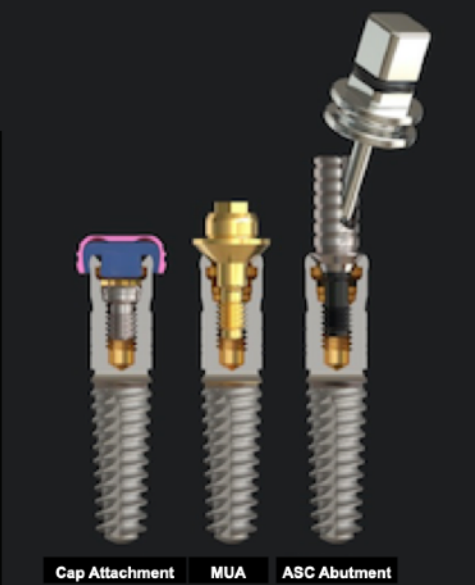
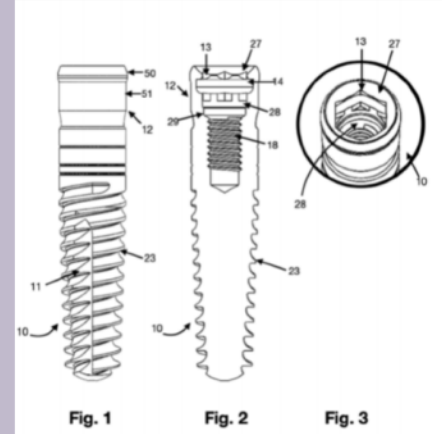
Patented Features of the 1-Piece NizPlant Implant with its Dual-Function Platform

**NIZPLANT 1-PIECE IMPLANT WITH DUAL FUNCTION PLATFORM
FUNCTION AS OVERDENTURE AND MULTI-UNIT ABUTMENT**

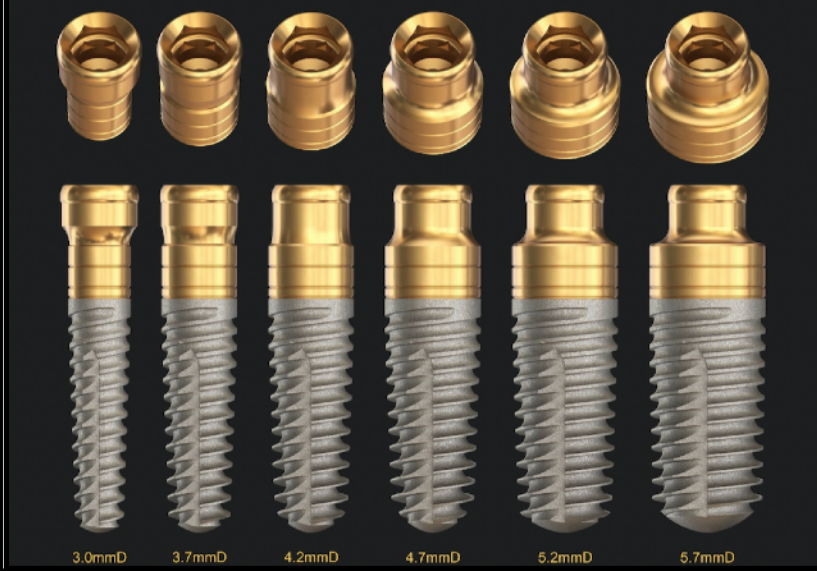
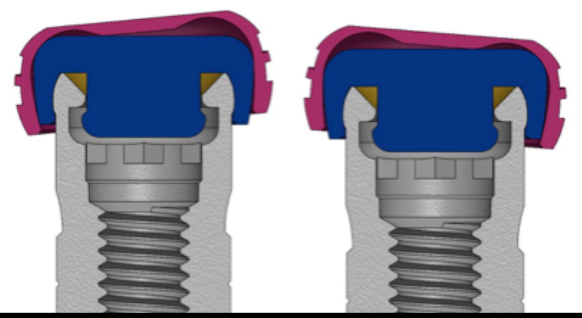
NizPlant 1-Piece Locator Compatible Implant with Internal Threads

ABSTRACT:

A screw-type endosseous dental implant includes, near the top on the implant's external surface, a ridge projecting laterally, and an internally-threaded shaft with a lead-in, beveled opening, an internal wrench-engaging surface located below said lead-in, beveled opening, and below said internal wrench-engaging surface and above said internal threads, an internal undercut/groove forming a chamber configured to receive a snap attachment for retention of an over-denture.



NizLoc Attachments Engage both outside and inside of the NizPlant implant. The male projection can be removed to reduce the degree of retention.



Zest LODI 2-Piece Implant with Over-denture Attachment
@ \$220, Includes Cap Attachment Components

NizPlant 1-Piece Implant with Dual Function Platform
@ \$150, Includes Cap Attachment Components

