

MPI™

M O L E C U L A R P R E C I S I O N I M P L A N T

D I T R O N D E N T A L U S A

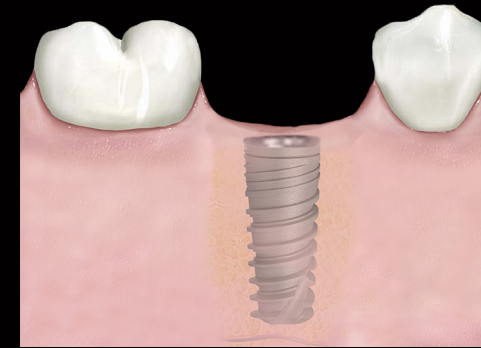


PRECISION IS, AFTER ALL, NOT ONLY A FORM OF RESPONSIBILITY AND A KIND OF PLEASURE, BUT AN INSTRUMENT OF COMPASSION. TO BE PRECISE REQUIRES CARE, TIME, AND ATTENTION TO THE PERSON, PLACE, OR PROCESS BEING DESCRIBED.

M A R I L Y N C H A N D L E R M C E N T Y R E

I M P L A N T P R O G R E S S I O N S

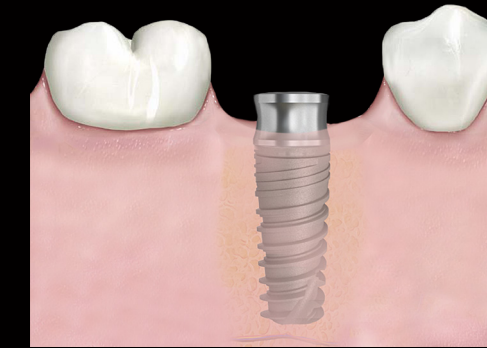
OVER TIME



2-STAGE SURGERY

Since the beginning of mankind, humans have used dental implants in one form or another to replace missing teeth.

The 1st generation of root form dental implants were introduced to North America in 1982. These 1st generation dental implants followed very conservative protocols with frequent contraindications. They were placed by high-end oral & maxillofacial surgeons utilizing a 2-Stage surgical protocol that required long healing times to ensure that the dental implants were osseointegrated. The restorative options for the patients were limited.



1-STAGE SURGERY

The 2nd generation of dental implants were influenced by a market evolution to a wider segment of the population. This led to an increase in the placement of dental implants by general dentists. This influx of clinical cases required more simple and affordable dental implant solutions.

In addition, a 1-Stage surgical protocol was adopted often resulting in the immediate placement of dental implants into an extraction site. New dental implant designs coupled with enhanced surface treatments decreased the healing times required to achieve osseointegration.



IMMEDIATE LOAD

The MPI™ dental implant was designed as a 3rd generation dental implant system, providing a unique combination of outstanding precision with unequalled clinical versatility. The system includes a variety of dental implant diameters and lengths together with expansive restorative solutions from a single tooth to an All-On-4® restoration.

The 3rd generation dental implant designs and enhanced surface treatments allow dentists to immediately load the dental implants following placement.

WHY DITRON DENTAL USA?

VERSATILITY FROM START TO FINISH

PRECISION BUILT IN

Ditron Group, a precision machining world leader and the parent company for Ditron Dental and Ditron Dental USA was established in Israel in 1968.

Ditron Dental is founded on the basis of more than 50 years of experience in the design, production and delivery of ultra-precise mission critical products for the aerospace, aeronautical, automotive and Medical Device industries.

Our products have been installed in some of the most extreme and challenging environments in which failure is unacceptable, including Tesla, Daimler, Jaguar, Ferrari F-1, Robert Bosch Corp, BMW and Mercedes-Benz. With state-of-the-art technology and in-depth process control, we attain production at single micron level accuracies and have been one of the leading companies in the design, production and JIT "Just in Time" delivery of ultra-precise mission critical products.

COMMITMENT TO QUALITY & SAFETY

We believe a multi-disciplinary approach is the best catalyst for innovation and have teamed engineers, micro-machining specialists and top-notch clinicians to drive our research and development of high-end dental implant-based solutions.

Ditron Dental's MPI™ Molecular Precision Dental Implant System offers outstanding simplicity, reliable function and exceptional flexibility. This allows you to deliver your patients high-quality, long lasting and esthetic restorations.

Our goal is to allow the reconstruction of the teeth as close as possible to the natural dentition, optimizing the long-term success of the dental implant system. We provide patients with a safe and reliable solution to improve their well-being and quality of life, both functionally and esthetically.

INSPECTION & CERTIFICATION

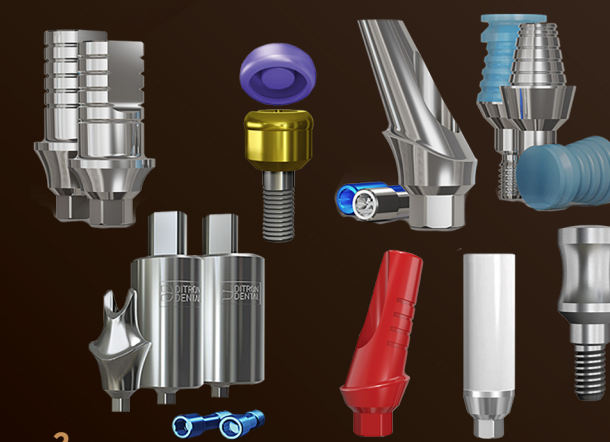
From raw materials to clean room packaging, all dental implants, prosthetic components and instruments undergo a comprehensive internal testing and inspection process. The testing includes fatigue, biocompatibility, pull-out and surface validation. This advanced quality assurance system aims to assure a Zero-PPM "Zero Defects per Million Parts". Outstanding precision and exceptional quality are an essential part of our corporate DNA.

The dental implants, prosthetic components and instruments are mechanically washed and disinfected and then sent to our ISO 14644-1 "Class 7" compliant cleanroom facilities for packaging. The cleanroom has particle counts of less than 1 per million/m³.

Ditron Dental is certified under EN ISO 9001:2008, SN EN ISO 13485:2012 MDD 93/42/EEC Annex II and is authorized to use the CE mark on all Ditron Dental products. All products are 510 (k) cleared by the FDA.



1



2

DITRON DENTAL USA PROVIDES A LIFETIME WARRANTY FOR ALL ITS DENTAL IMPLANTS AND PROSTHETIC COMPONENTS WHEN USED IN ACCORDANCE WITH THE SUPPLIED INSTRUCTIONS FOR USE (IFU) AND THE COMPANY'S PROTOCOLS.

1 SURGICAL KITS

2 PROSTHETIC COMPONENTS

3 MPI™ DENTAL IMPLANTS



3

MAKE OUR PRECISION **YOURS**

M P I™

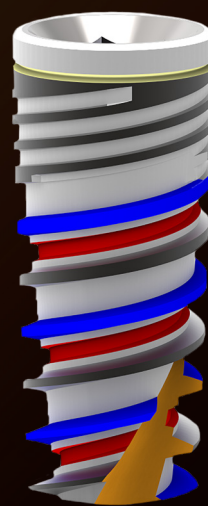
FEATURES & BENEFITS



MPI™ MOLECULAR PRECISION IMPLANT

The MPI™ Molecular Precision Dental Implant System features a revolutionary dental implant design, combining high initial stability with a long-term biological anchor.

The dental implant system features an internal hexagon dental implant-abutment connection, the most widely used in the marketplace, eliminating the need to learn something new.

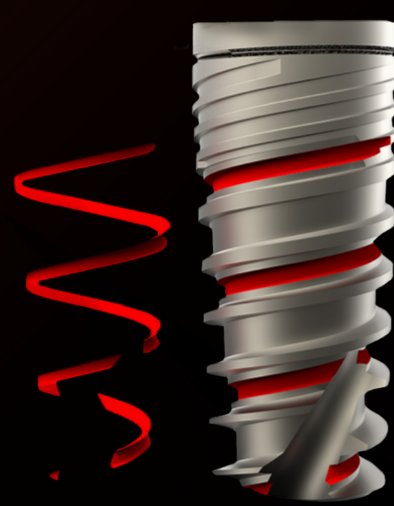


IMPLANT BODY

There is high initial stability established even in compromised bone situations.

The expanding tapered dental implant body with a self-tapping progressive double-thread design, gradually condenses the bone enhancing initial stability.

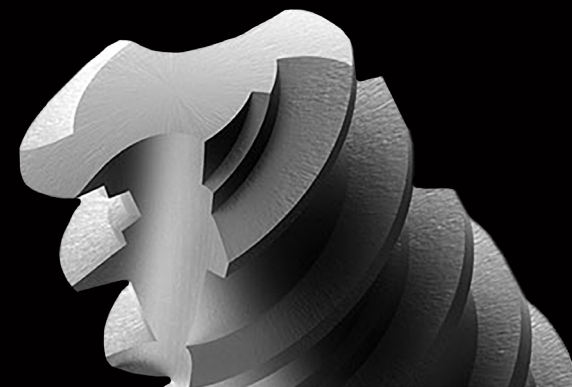
The double-lead threads result in an efficient insertion rate of 2.2 mm per revolution of the dental implant.



ASSISTED OSSEOINTEGRATION

The unique Spherical Helix Chamber forms a dedicated space for the collection of blood and bone fragments from the osteotomy preparation.

These materials can form a scaffold or matrix to assist with osteo-conduction and new bone formation.

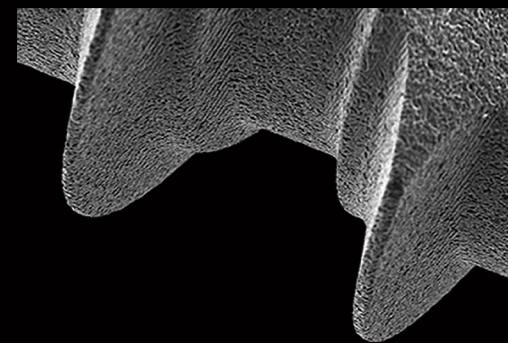


APEX DESIGN

The apex has self-tapping drilling blades that enable a smaller osteotomy.

This self-tapping function also supports a precise adaptation of the dental implant threads to the bone providing optimal initial stability.

The rounded apex improves the ease of insertion, allowing mild directional refinement during the initial stages of dental implant insertion.



SURFACE TREATMENT

The MPI™ dental implants are blasted with Al_2O_3 and double thermally acid-etched, followed by high purity cleaning procedures. This allows Ditron Dental to achieve superior EDS and XPS results.

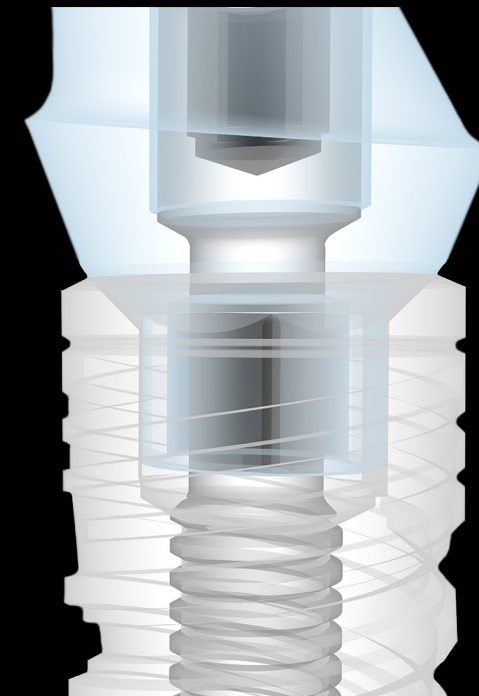
This process was designed to provide a micro and macro morphology for accelerated osseointegration.



RESTORATIVE PLATFORM

The dental implant beveled collar is designed to be placed subcrestal. This shifts the dental implant-abutment junction inward away from the coronal bone, allowing you to achieve a platform-switching configuration that prevents coronal bone resorption and promotes soft-tissue growth.

There is one 2.45 mm dental implant-abutment internal hexagon connection for all diameters and lengths simplifying the restorative platform with less parts and pieces to inventory.



MOLECULOCK™

The MolecuLock™ biomechanical dental implant-abutment seal is designed to reduce micro-gaps, to less than 0.5 microns. This reduced micro-gap is too narrow for bacteria to penetrate.

This effective MolecuLock™ seal, prevents the ingress and colonization of fluid and bacteria into the dental implant-abutment interface and reduces the potential for malodor and the egress of bacteria. This protects the crestal bone and soft tissue from the risks of peri-implantitis ensuring long-term dental implant success with maximum esthetics.

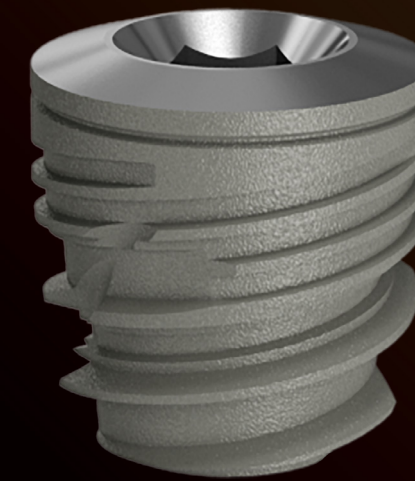
MPI™ IMPLANT SYSTEM

DIAMETERS & LENGTHS

Some believe all dental implants are created equal. We know better.

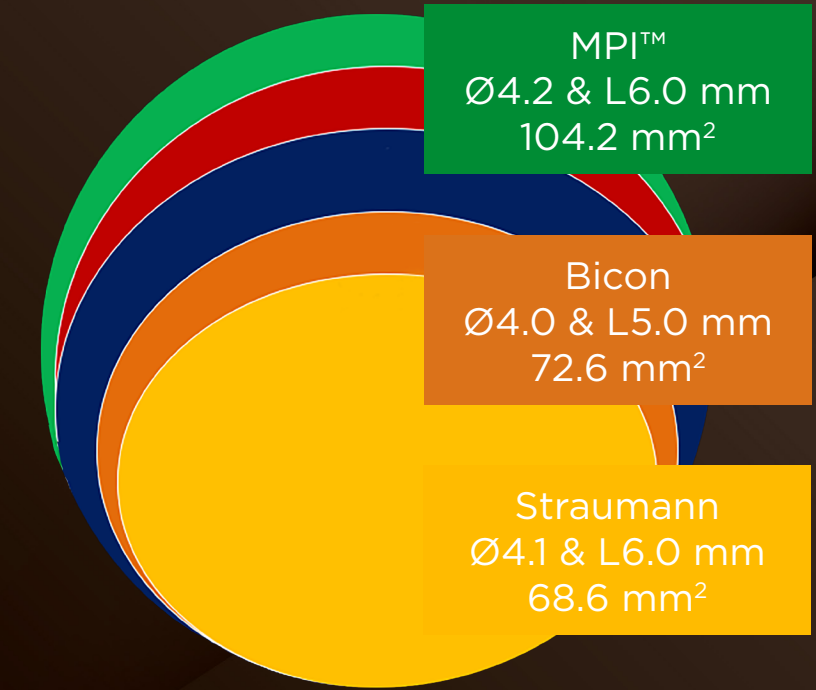
MPI™ MOLECULAR PRECISION IMPLANTS Ø 3.3-5.0 MM

The MPI™ Molecular Precision Dental Implants are available in 6 diameters (3.3, 3.5, 3.75, 4.2, 5.0 and 6.0 mm) and 6 lengths (6.0, 8.0, 10.0, 11.5, 13.0 and 16.0 mm). Each diameter has its own color coding that corresponds to the diameter of the surgical drills. A sterile Titanium Cover Screw for a 2-Stage surgical procedure is included in each dental implant package.

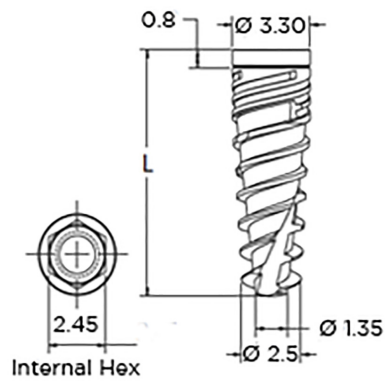


MPI™ MOLECULAR PRECISION IMPLANT Ø 6.0 MM

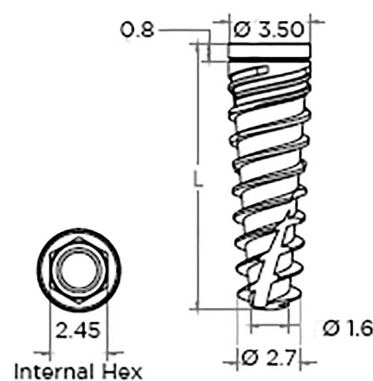
The 6.0 mm diameter MPI™ dental implants allow the clinician to avoid extensive bone augmentation procedures in patients with insufficient vertical bone. The micro-morphology of the MPI™ 6.0 mm diameter dental implants provide the best in class dental implant to bone surface area.



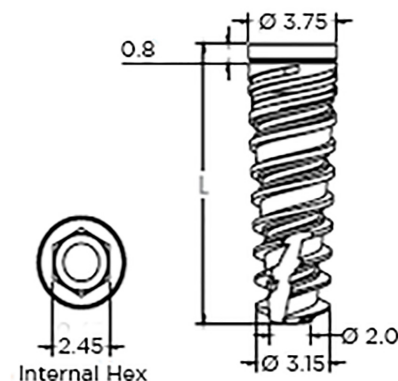
SURFACE AREA COMPARISON



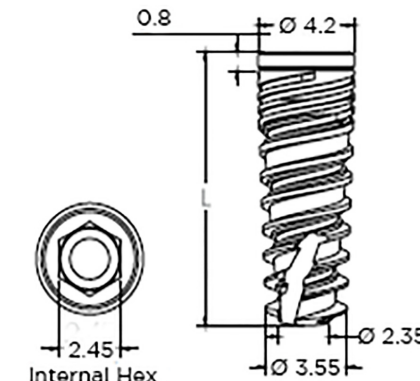
Ø 3.3 mm



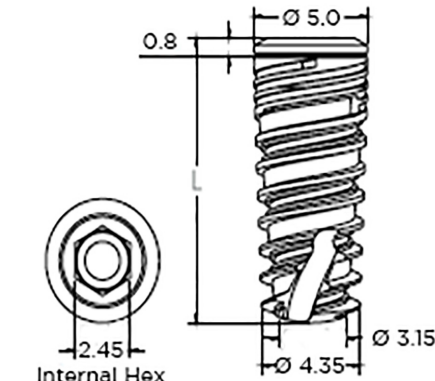
Ø 3.5 mm



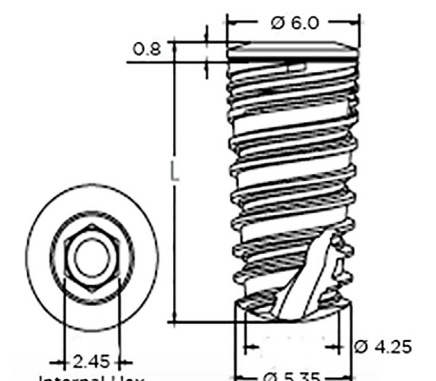
Ø 3.75 mm



Ø 4.2 mm



Ø 5.0 mm



Ø 6.0 mm

REVOLUTIONARY INNOVATION



PACKAGING

The MPI™ dental implants are packaged in an ISO “Class 7” Clean Room. The dental implants are packaged in rectangular boxes allowing for convenient storage.

The packaging includes quick identification of the dental implant diameter and length with a color-coded seal on the top of each rectangular box. The back label on the box includes the Implant Type, Catalog Number, Diameter & Length, Batch Code, Manufacture Date, Expiration Date and CE Mark. Each MPI™ dental implant and cover screw are supplied in a sealed vial inside the rectangular box.



INSTRUMENTS

The MPI™ Dental Implant System instrumentation has been simplified to include a Hand and Ratchet Driver together with a Motor Driver that can be used for dental implant insertion and both cover screw and healing abutment connections.

There is a conical 1.25 mm connection at the tip for cover screws and healing abutments with a 2.45 mm connection for the internal hexagon of the MPI™ dental implant. The Hand & Ratchet Driver has a visual indicator for the hexagon position. The Hand and Ratchet Driver comes in a short (26 mm) and long (29 mm) version. The Motor Driver comes in a short (23 mm) and long (26.5 mm) version.

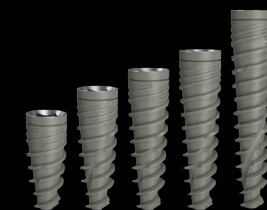


IMPLANT-ABUTMENT CONNECTION

There is one 2.45 mm dental implant-abutment internal hexagon connection for all MPI™ dental implant diameters and lengths, simplifying the restorative platform with less parts and pieces to inventory.

All connections are either engaged or non-engaged and utilize the MolecuLock™ biomechanical dental implant-abutment seal. The abutments vary in diameter from 3.8 to 6.0 mm and in length from 6.0 to 12.5 mm with collar heights ranging from 0.5 to 7.0 mm. There are Healing, Temporary and Overdenture Abutments as well as abutments for Cement, Screw-Retained and Multi-Unit restorations. Impression Copings, Analogs and CAD/CAM Digital Workflow solutions are also available.

MPI™ DENTAL IMPLANTS



Ø 3.3 mm
Length 8, 10, 11.5, 13 & 16 mm



Ø 3.5 mm
Length 8, 10, 11.5, 13 & 16 mm



Ø 3.75 mm
Length 8, 10, 11.5, 13 & 16 mm



Ø 4.2 mm
Length 6, 8, 10, 11.5, 13 & 16 mm



Ø 5.0 mm
Length 6, 8, 10, 11.5, 13 & 16 mm

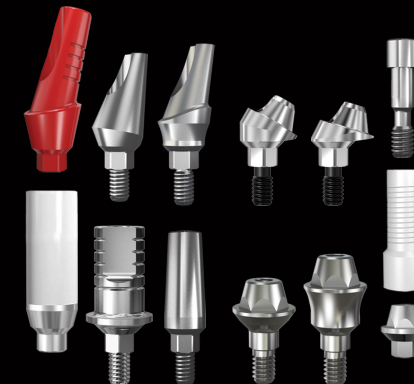


Ø 6.0 mm
Length 6, 8, 10, 11.5 & 13 mm

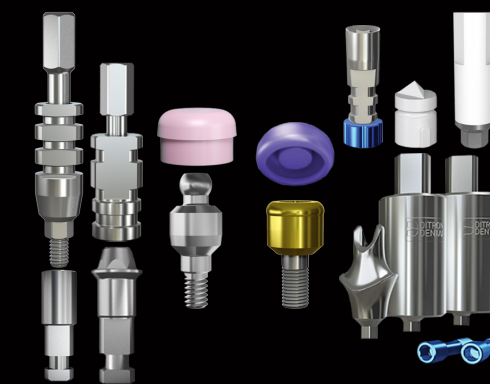
ABUTMENTS



HEALING &
TEMPORARY ABUTMENTS

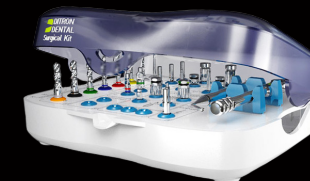


CEMENT, SCREW-RETAINED &
MULTI-UNIT RESTORATIONS



IMPRESSION COPINGS, ANALOGS,
OVERDENTURE & CAD/CAM

SURGICAL KITS



FULL SURGICAL KIT
TWIST DRILLS

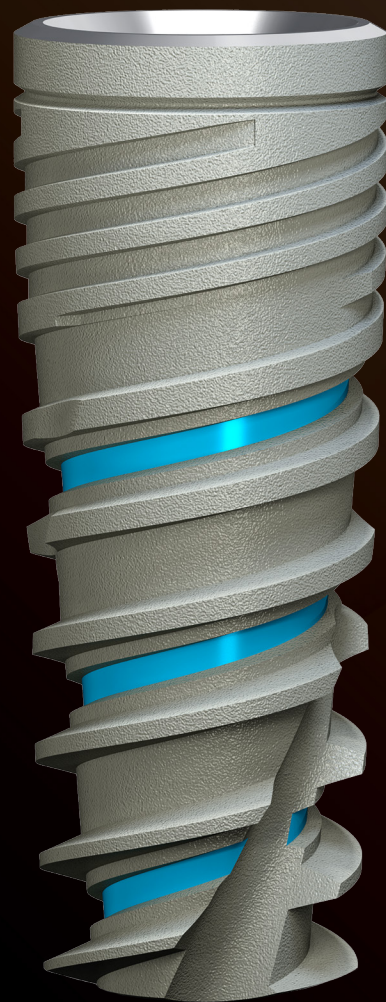


D TUBE
INTEGRAL STOPPER DRILLS



SURGICAL TUBE
TWIST DRILLS

STEP INTO OUR WORLD



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D I T R O N D E N T A L
U S A

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