

# Implant Dentistry

GC Tech. Europe



 Aadva™

GC Implant Aadva™



# Innovative implant technology

The GC Aadvia Implant system is based on a pioneering implant-prosthetic synergy and CAD/CAM dentistry concept. The expertly crafted GC Aadvia Implant range offers a complete solution for your implant cases. All components of the system are state-of-the-art and incorporate GC's commitment to quality and decades of research and expertise in dental materials production and development. The 21st century is the period of health and GC is dedicated to contribute towards improved oral health for all people.

The GC Aadvia implant system integrates the latest acquired scientific-based evidence



#### Hexagonal interlocking of the conical sealed connection.

- Simplifies the fitting and positioning of prosthetic parts.



'Standard' Implant

'Tapered' Implant

#### Progressive threads on the implant body

- Optimises primary stability by respecting bone physiology.

#### Cumulative effect of shifting and switching platform.

- Active preservation of hard and soft tissue to obtain and maintain aesthetic and functional integration.

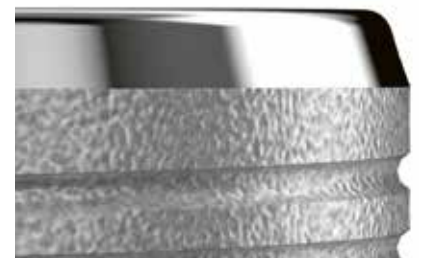


#### External angulated geometry implant collar.

- Promotes the stabilization of the biological width by initiation of an attachment area for epithelial connective tissue.
- Reduces the risk of peri-implantitis

#### Coronal micro threads.

- Promotes rigidity of the implant collar and distributes the peripheral bone stress.



#### Surface roughness technology for enhanced osseointegration.

- Homogeneously micro-structured topography using GC's technological expertise (Anchor® Surface Technology)
- Grade 5 titanium alloy selected for its high quality.



'Short' Implant

#### Implant Features

- Diameter reduced, platform switching)
- Optimized thread- and implant geometry for maximal bone to implant contact
- Rounded apex for more security in treatment
- Machined neck for periimplantitis prophylaxis
- Balanced conicity of implant body for secure primary stability while protecting the bone
- Self tapping thread for smooth and minimal invasive insertion

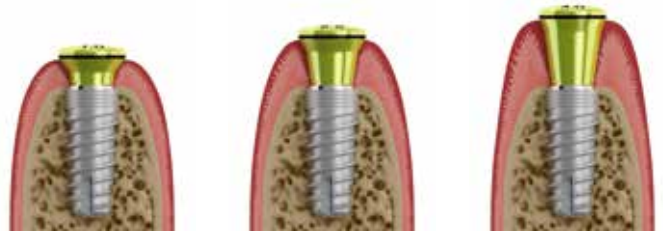
#### Conical seal design.

- Prevents bacterial infiltration and maintains the biological width.
- Promotes hermeticity of the joint.
- Enhances a homogeneous distribution of mechanical stresses.
- Guarantees a stable prosthetic connection.

# Prosthetic management of gingival aesthetics

The hermetic conical connection, along with the control of the implant insertion, helps to manage the prosthetic emergence profile.

The possibility offered by the transgingival healing screws, available in 3 different sulcular heights (EPH 1.0 - 2.5 - 4.0 mm) and 3 diameters (4 - 5 - 6 mm) guide the vertical and horizontal healing of the soft tissues allowing for an optimized control of the final prosthetic aesthetics.



## Predictable and reproducible results



Adapted drilling sequences, ease of grip and insertion of the implant.



Quality of healing in the surrounding soft tissue.



Quality of maturation of soft tissue and aesthetic integration of the prosthetic element.



Post-operative X-ray at 36 months.

Pictures courtesy of Dr Rebouillat, Chablis, France

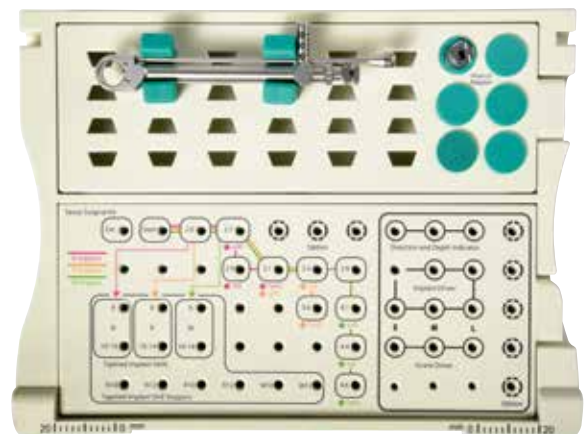
# Secure surgical preparation

Thanks to an adapted step-by-step drill sequence in relation to the bone quality of the patient, the GC Aadva Implant system ensures optimal primary implant stability.

Each drill bit has a specially treated surface that optimizes its cutting index and controls overheating.

The depth markings have been designed in order to obtain perfect visibility regardless of the clinical situation.

The ergonomic design of the GC Aadva surgical kit allows an optimal navigation through the drilling sequence thanks to an intelligent surgical organization and guarantees efficient cleaning and sterilisation of surgical tools.



# Multiple prosthetic solutions

An implant requires high precision prosthetic solutions.

The GC Aadvia Implant system offers prosthetic flexibility.

The versatility of implant abutments for cement-retained or screw-retained configurations in various materials allows the dental professional to ensure a long-term function and optimal aesthetics for the patient.

A large choice of standard abutments or customised CAD/CAM abutments will meet the highest requirements for functional and aesthetic reconstructions.

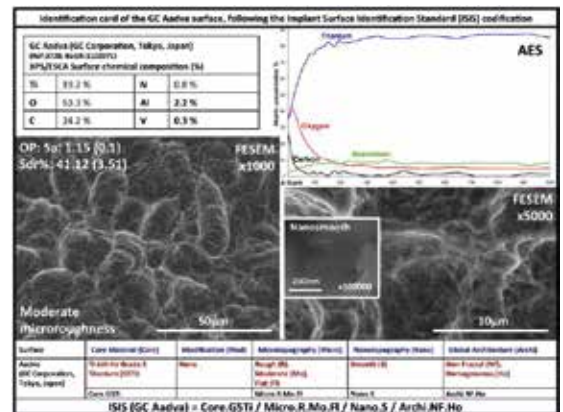


## Literature Aadvia™ scientific background

### Aanchor® Surface Technology

POSEIDO Journal 2014;2(1): "Identification card and codification of the chemical and morphological characteristics of 62 dental implant surfaces. Part 3: sand-blasted/acid-etched (SLA type) and related surfaces (Group 2A, main subtractive process)" Dr. David M. Dohan Ehrenfest et al

**Result:** Only 3 surfaces presented no pollution and also no chemical modification at all. These include GC Aadvia™ implant



### Aadvia™ clinical outcome in general private practice

Dental Tribune International 1/2015; Implant 05/2014; Quintessence 4/2015: "Aadvia implant in private practice" Prof. Marc Quirynen et al (Catholic University Leuven, Belgium)

**Result:** Cumulative survival rate – 98.5 % of total 393 placed implants

Interval in months	Implants interval	Failed implants	Interval survival	Cumulative survival percentage
0-6	300	3	99.0	99.0
7-12	297	2	99.3	98.3
13-18	259	0	100	98.3
19-24	158	0	100	98.3
25-30	86	0	100	98.3
31-36	24	0	100	98.3
37-42	6	0	100	98.3

### Aadvia™ Literature overview

CID 8/2015: "Dental implant macro-design features can impact the dynamics of osseointegration" Prof. Joke Duyck et al (Catholic University Leuven, Belgium)

EAO 2016: "Fatigue strength of short implant" Shinichiro Hanada

EAO 2016: "Simultaneous placement of a newly-designed fixture in various bone augmentation cases" Dr. Yoichi Taniguchi

AAP 2016/ WCOI 2016: "Influence of horizontal load application on microgaps between fixture-abutment interfaces" Dr. Ayako Yasui (Meikai University, Japan)

IADR2013/ EAO2015: "Primary Stability of the Tapered Implant in Very Soft Bone" Shinichiro Hanada

Survey Report: "The long-term clinical success of dental implants made of pure titanium (grade 1-4 titanium) and titanium alloys (titanium grade 5)" Prof. Dr. R. Mengel (University Marburg, Germany)

L'INFORMATION DENTAIRE 11/2011: "Remplacement d'une incisive centrale maxillaire" Dr. Jean-Baptiste Rebouillat

Annali di Stomatologia 2010: "Implant adaptation of stock abutments versus CAD/CAM abutments: a radiographic and Scanning Electron Microscopy study" Prof. Marco Ferrari (University Siena, Italy)

Expert Report: "Micro-Movements of Implant-Abutment-Interface" Prof. Dr. H.-Ch. Lauer (J. W. Goethe-University Frankfurt, Germany)

# Expertise across technology

## The fundamentals in the development of the GC Aadvä Implant.

The unique surface of the Aadvä Implant system was developed utilizing proven technology.

Its characteristics are created through homogeneous sandblasting with high purity of alumina particles and acid etching which enhance and stimulate osseointegration. (Anchor® Surface Technology)

The self-tapping function of the implant's progressive thread promotes the preparation of the implant site allowing a stable insertion creating an optimal primary stability.

The geometry of the implant body is designed to distribute mechanical stresses evenly over the entire implant length.

The design of the coronal micro-threads, combined with an angulated implant collar, creates a favourable contact zone which promotes and maintains bone healing.

The combination of a hermetic conical seal, as well as the "switching" effect, discourages bacterial infiltration from the area of the epithelial connective joint.

The result of these two principles enables better preservation of bone and soft tissue volumes, thus improving the longterm aesthetic results.

## Ergonomic packaging design

GC Aadvä Implants are packed in sterile transparent containers.

They are protected by a titanium colour-coded 'implant carrier' allowing the implant, upon retrieval, to be carried directly to patient's mouth without any intermediate steps.

This touch-free delivery system simplifies the operating procedure.

The packaging has been designed to make the retrieval, delivery and storage of the implants much easier, allowing you to focus solely on the implant placement.

### Narrow

Purple



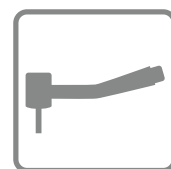
### Regular

Yellow



### Wide

Green



## GC Aadvä Implant range

- **Narrow ø 3.3**  
Lengths 8 -10 -12 -14 mm
- **Regular ø 4.0**  
Lengths 8 -10 -12 -14 mm
- **Wide ø 5.0**  
Lengths 8 -10 -12 mm

Standard Implants



narrow regular wide

Tapered Implants



narrow regular wide

Short Implants



ø 4.2 ø 5.2  
Lengths 6,3 mm

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