

**bicon**<sup>®</sup>  
DENTAL IMPLANTS

 **SHORT**<sup>®</sup>  
IMPLANTS



**CLINICALLY PROVEN** SINCE 1985

# SHORT<sup>®</sup> IMPLANTS

## WHY SHORT<sup>®</sup> IMPLANTS?

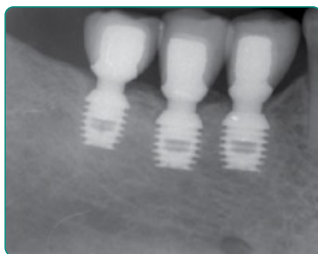
**BICON SHORT<sup>®</sup> IMPLANTS** offer flexibility to dentists in challenging clinical situations. The short lengths allow clinicians to avoid vital structures with confidence, and can eliminate the need for many grafting procedures. With Bicon, longer implant lengths are not necessarily better. In many clinical situations, shorter implants offer a better solution.

- ▶ Avoid vital structures
- ▶ Minimize bone grafting procedures
- ▶ Maximize implant placement possibilities
- ▶ Increase patient acceptance
- ▶ Offer a clinically-proven, comprehensive solution
- ▶ Offer single unit restorations without splinting



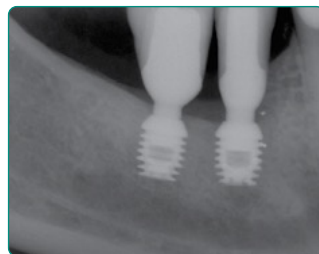
Bicon's Patented SHORT<sup>®</sup> Implants

## Avoid the Inferior Alveolar Canal



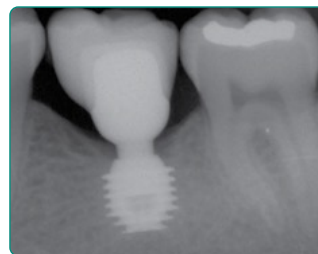
**9 Years**

Three 5.0 x 6.0mm SHORT<sup>®</sup> Implants supporting three extra-orally cemented crowns for restoring the posterior mandible. Note level of inferior alveolar canal.



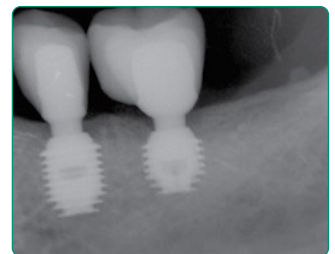
**9 Years**

Two 5.0 x 6.0mm SHORT<sup>®</sup> Implants supporting two Bicon Integrated Abutment Crowns<sup>™</sup> for two mandibular right molars. Note level of inferior alveolar canal.



**12 Years**

A 6.0 x 6.0mm SHORT<sup>®</sup> Implant supporting an extra-orally cemented crown for a mandibular left first molar.

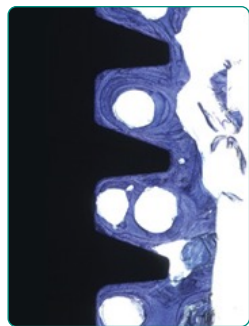


**10 Years**

A 6.0 x 6.0mm SHORT<sup>®</sup> Implant supporting a Bicon Integrated Abutment Crown<sup>™</sup> for a mandibular left first molar.

# Plateau Design

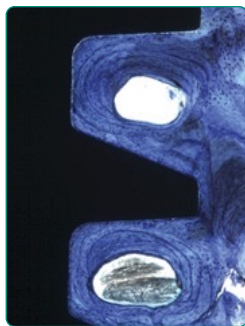
Bicon's plateau or fin design offers at least 30% more surface area than a screw implant of the same dimensions and allows for the callus formation of mature, cortical-like, haversian bone between the fins of the implant.



20 Years in Function



23 Years in Function



18 Years in Function

Baldassarri, M., Bonfante, E.A., Suzuki, M., Marin, C., Granato, R., Tovar, N., Coelho, P.G., *Mechanical Properties of Human Bone Surrounding Plateau Root Form Implants Retrieved After 0.3–24 Years of Function*, J Biomed Mater Res B Appl Biomater, 2012 October;100B(7):2015–2021.

Coelho, P.G., Granato, R., Marin, C., Bonfante, E.A., Janal, M.N., Sukuki, M., *Biomechanical and Bone Histomorphologic Evaluation of Four Surfaces on Plateau Root Form Implants: An Experimental Study in Dogs*, Oral Surg Med Oral Pathol Oral Radiol Endod 2010 May;109(5):e39–45.

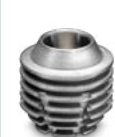
Coelho, P.G., Bonfante E.A., Marin C., Granato R., Giro, G., Suzuki, M., *Human Retrieval Study of Plasma-sprayed Hydroxyapatite-Coated Plateau Root Form Implants After 2 Months to 13 Years in Function*, Journal of Long-Term Effects of Medical Implants, 2010;20(4):335–342.

## HISTORY OF THE SHORT® IMPLANT

Thomas Driskell begins implant design research which enables the routine use of short lengths.



6.0 x 8.0mm  
SHORT® Implant



6.0 x 5.7mm  
SHORT® Implant

6.0 x 8.0mm SHORT® Implant receives FDA clearance.

Clinical studies begin for Bicon's 5.7mm SHORT® Implant.



4.5 x 6.0mm  
SHORT® Implant



6.0 x 6.0mm  
SHORT® Implant

4.5 x 6.0mm SHORT® Implant introduced and receives FDA clearance.

6.0 x 6.0mm SHORT® Implant introduced and receives FDA clearance.

1968

1985

1997

2000

2004

2005

### SHORT® IMPLANTS

Bicon's implant system is introduced, including 8.0mm length implants which were considered very short at the time.



4.5 x 8.0mm  
SHORT® Implant

4.5 x 8.0mm SHORT® Implant introduced and receives FDA clearance.



5.0 x 6.0mm  
SHORT® Implant

5.0 x 6.0mm SHORT® Implant introduced and receives FDA clearance.

## Avoid the Maxillary Sinus



11 Years

A 6.0 x 6.0mm SHORT® Implant supporting a Bicon Integrated Abutment Crown™ for a maxillary left first molar. Note level of maxillary sinus.



9 Years

A 5.0 x 6.0mm SHORT® Implant supporting an extra-orally cemented crown for a maxillary left second molar. Note level of maxillary sinus.



17 Years

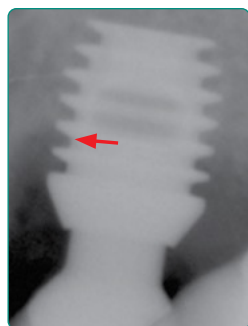
A 6.0 x 6.0mm SHORT® Implant supporting a PFM crown for a maxillary right first molar. Note level of maxillary sinus.



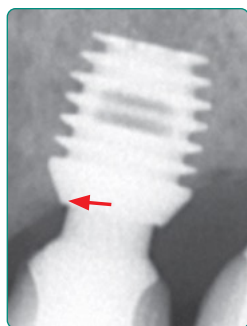
12 Years

A 6.0 x 6.0mm SHORT® Implant supporting a Bicon Integrated Abutment Crown™ for a maxillary right first molar. Note level of maxillary sinus.

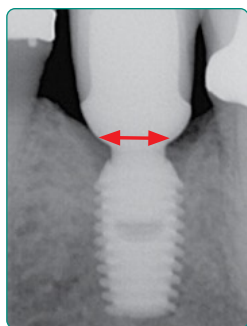
# Bone Gain Over Time



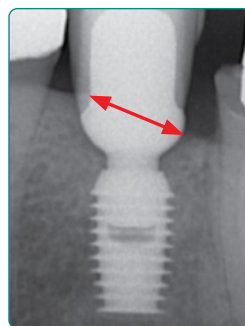
2006



2010




2003




2012

Urdaneta, R.A., Daher, S., Leary J., Emanuel K., Chuang, S.K., Tovar, L.A., Factors Associated with Crestal Bone Gain on Single-Tooth Locking-Taper Implants: The Effect of NSAIDs, Int J Oral Maxillofac Implants 2011;26:1063-1078




4.0 x 5.0mm  
SHORT® Implant



4.0 x 6.0mm  
SHORT® Implant

4.0 x 5.0mm SHORT® Implant receives FDA clearance.  
4.0 x 6.0mm SHORT® Implant receives FDA clearance.




3.0 x 6.0mm  
SHORT® Implant

3.0 x 6.0mm SHORT® Implant receives FDA clearance.




38-year anniversary of 8.0mm lengths.  
26-year anniversary of 6.0mm lengths.

2008




5.0 x 5.0mm  
SHORT® Implant



6.0 x 5.0mm  
SHORT® Implant

5.0 x 5.0mm SHORT® Implant introduced and receives FDA clearance.  
6.0 x 5.0mm SHORT® Implant introduced and receives FDA clearance.


2010



3.0 x 8.0mm  
SHORT® Implant

3.0 x 8.0mm SHORT® Implant receives FDA clearance.

2017



4.5 x 5.0mm  
SHORT® Implant

4.5 x 5.0mm SHORT® Implant receives FDA clearance.

2023

## Publications

Bicon's research focuses on a design that has remained unchanged since 1985. While other manufacturers claim decades of research, most of their research was conducted on designs that are no longer in clinical use. Please find selected research on the Bicon SHORT® Implant:

Urdaneta, R.A., Daher, S., Leary, J., Emanuel, K., Chuang, S.K., *The Survival of Ultrashort Locking-Taper Implants*, Int J Oral Maxillofac Implants, 2012 May/June; 27(3):644-654

Yi, Y.S., Emanuel, K.M., Chuang, S.K., *Short (5.0 x 5.0 mm) Implant Placements and Restoration With Integrated Abutment Crowns*, Implant Dent, 2011;20(2):125-130

Urdaneta, R.A., Daher, S., Leary, J., Emanuel, K., Chuang, S.K., Tovar, L.A., *Factors Associated with Crestal Bone Gain on Single-Tooth Locking-Taper Implants: The Effect of NSAIDs*, Int J Oral Maxillofac Implants, 2011 September/October;26(5):1063-1078

Birdi, H., Schulte, J., Kovacs, A., Weed, M., Chuang, SK, *Crown-to-Implant Ratios of Short-Length Implants*, J Oral Implantol, 2010; 36(6):425-433

Urdaneta, R., Rodriguez, S., McNeil, C., Weed, M., and Chuang, S., *The Effect of Increased Crown-to-Implant Ratio on Single-Tooth Locking-Taper Implants*, Int J Oral Maxillofac Implants, 2010 July/August;25(4):729-743

Venuleo, C., Chuang, S.K., Weed, M., Dibart, S., *Long Term Bone Level Stability on SHORT® Implants: A Radiographic Follow up Study*, Indian Journal of Maxillofacial and Oral Surgery, 2008 September;7(3):340-345.

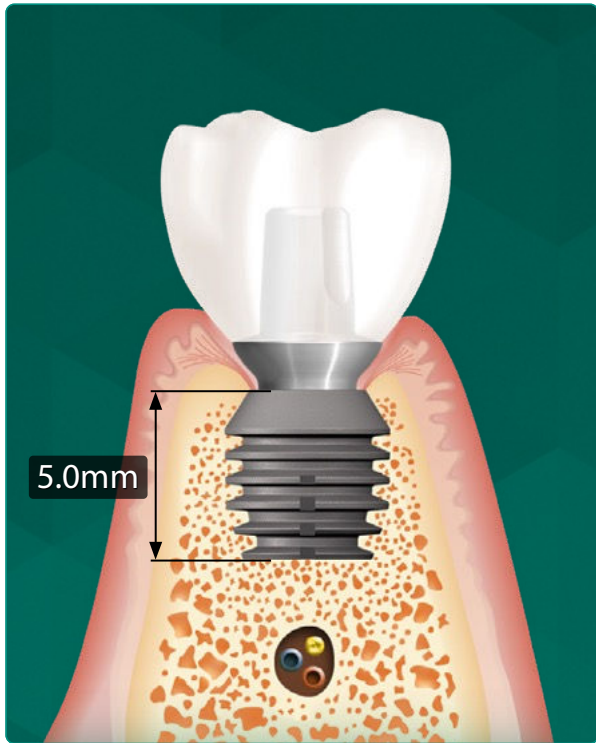
Schulte, J., Flores, A., and Weed, M., *Crown-to-Implant Ratios of Single Tooth Implant-Supported Restorations*, J Prosthet Dent, 2007 July; 98(1):1-5

Gentile, M., Chuang, S.K., and Dodson, T., *Survival Estimates and Risk Factors for Failure with 6.0 x 5.7mm Implants*, Int J Oral Maxillofac Implants, 2005 November/December;20(6):930-937

Bozkaya, D., Müftü, S., and Muftu, A., *Evaluation of Load Transfer Characteristics of Five Different Implant Systems in Compact Bone at Different Load Levels by Finite Element Analysis*, J Prosthet Dent, 2004 December;92(6):523-530.

## SIMPLICITY & VERSATILITY

*An implant's design dictates its clinical capabilities.*



*SHORT® Implants maximize implant placement possibilities and minimize the need for grafting procedures.*

**T**he Bicon System is a unique dental implant system, offering the worldwide dental community a comprehensive solution since 1985.

Bicon's unique plateau design follows sound bioengineering principles which allow for the use of SHORT® Implants. Its unique bacterially-sealed, locking taper, implant to abutment connection provides for 360° of universal abutment positioning — *offering restorative flexibility unmatched by other implant systems.* The sloping shoulder of the Bicon implant consistently provides for gingivally aesthetic restorations. These restorations are easily achieved because the bone that is maintained over the shoulder of the implant provides support for the interdental papillae.

Bicon's unique design and its revolutionary clinical techniques have not only passed the test of time, but also continue to lead the field of implant dentistry. We welcome your joining Bicon clinicians from around the world, so that both you and your patients may also enjoy the clinical benefits of Bicon.

*The shortest implants with the longest history.*

*"I have been placing Bicon implants since 1997, and love their simplicity and reliability. I've been using the Bicon SHORT® Implant since it first came out in the UK.*

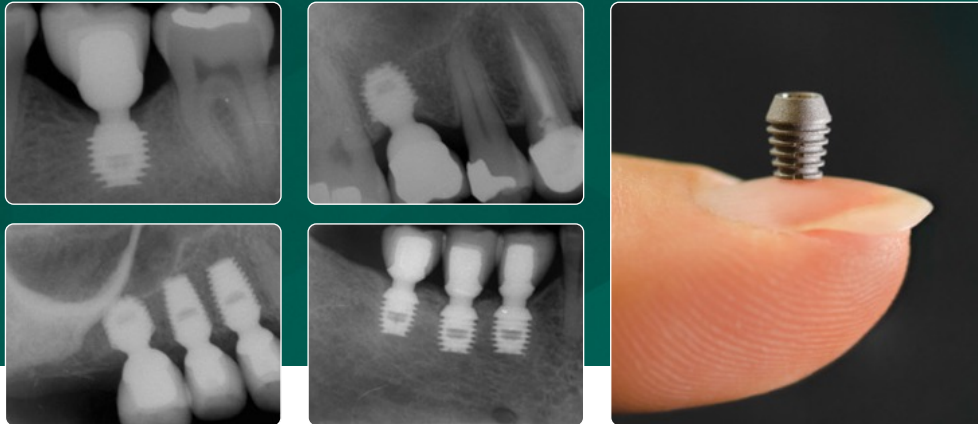
*Although I am experienced in all types of bone grafting for dental implants, this SHORT® Implant frequently allows my patients to avoid the need for any grafting at all. I have to worry less and less about sinuses and nerves as the SHORT® Implant allows me to stay well away from them—patient acceptance for implant treatment soars when you don't have to tell them about bone grafts!"*

**Bill Schaeffer, Oral Surgeon**

*"With over 25 years of experience, I enjoy the challenge of performing bone augmentation procedures when the necessity arises. However, my patients are often not so eager to undergo grafting procedures — and their reluctance can be a roadblock to successful implant treatments. With the advent of Bicon's 6.0mm SHORT® Implants, I have been able to treatment plan many cases as routine implant placements without grafting with its additional expense for my patients. The Bicon SHORT® Implant greatly increases case acceptance and has allowed me to place many more implants without reservations about their success."*

**Joseph Leary, Periodontist**

# **SHORT**<sup>®</sup> IMPLANTS



## **BENEFITS FOR THE DENTIST**

The clinical reality is that many potential implant patients have limited bone height. When placing longer implants, the maxillary sinus and inferior alveolar nerve often present risks. Although bone grafting procedures help alleviate these risks, patients may still avoid treatment because of the financial costs and time for grafting procedures. Additionally, bone grafting procedures have their own inherent risks and morbidities – which patients often find unacceptable. Bicon SHORT<sup>®</sup> Implants afford simpler and consistently more predictable treatments, which can significantly increase a patient's acceptance of implant treatment.

## **BENEFITS FOR THE PATIENT**

With the use of Bicon SHORT<sup>®</sup> Implants, patients with limited bone height can often avoid the inherent risks and costs associated with bone grafting procedures. Additionally, the extended healing time and cost of bone grafting procedures are eliminated.



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**Since 1985** » Simple. Predictable. Profitable.