

# Biökey™

**Mini Implant System**

- Mini-Implant System
- Anchorage Screw
- Extension Hook
- Surgical & Dental Tools
- Maxillofacial Bone Plate



# Mini-Implant System

The purpose of Biokey mini-implant system is to provide orthodontists simple and reliable ways to treat a full range of cases and to reduce treatment time.

As a professional orthodontic Biokey mini-implant system supplier, we have moved from the only design stage to the design and manufacture stage.

Biokey mini-implant system is a reliable anchorage device which simplifies the treatment process and greatly minimizes patient discomfort after insertion.

Biokey mini-implant system is self-drilling and self-tapping, when meet a extreme case, may need a drill.



# Anchorage Screw

## Clinical Advantages

### Safety Region

- (i) To avoid hurting thicker tissue.
- (ii) Variety of lengths can be choose.

### Taper Region

- (i) To release bone stress.
- (ii) To enhance the stability of insertion.

### High Stability Region

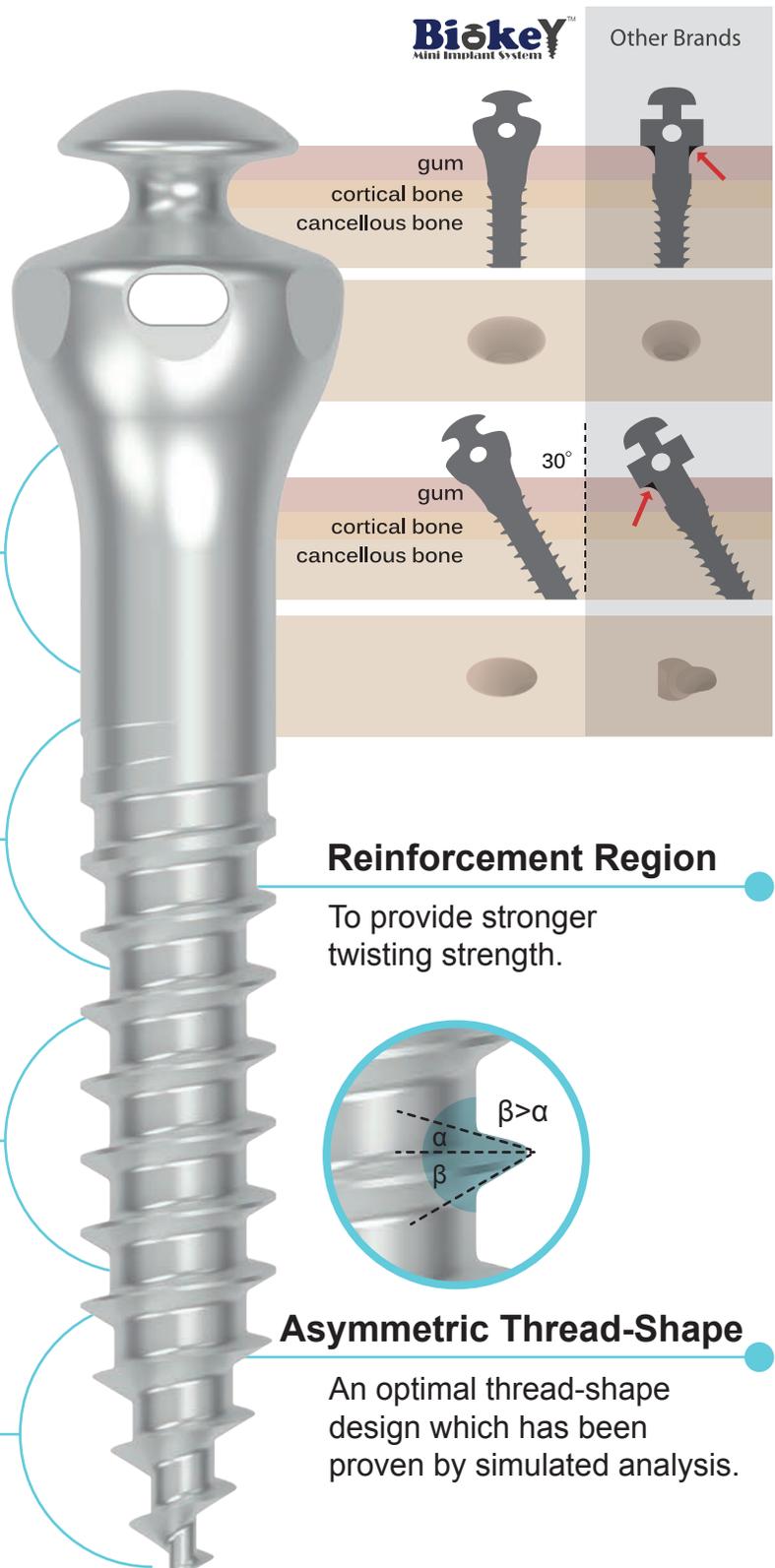
To increase the resistant ability of pull out and lateral force.

### Spiral Mechanical Tip

To improve the efficiency of insertion without pre-drilling and less deformation of screw tip.

**Biøkey™**  
Mini Implant System

Other Brands



### Reinforcement Region

To provide stronger twisting strength.

### Asymmetric Thread-Shape

An optimal thread-shape design which has been proven by simulated analysis.

# Screw Head Types

## Classic Type



## Cap-Head Type



### Smooth Cervical Surface Design

To avoid food residue and reducing inflammatory reaction.

### Rounding Curved

To provide strong and stable anchorage base for the coil spring or o-ring.

### Cap Design

Can be used with metal springs, like TOMY®.

## Tradition Type



## Flat-Head Type



### Stopper Structure

To avoid screw insert deeply.

### Flat Design

To avoid rubbing patient's oral tissue and reducing abnormal sensation.

## Performance Type



### Smallest Diameter (1.4mm) Screw

Designed for comfort and easy insertion into the narrow space between the teeth.

## Hook-Head Type



### Hook Design

Suitable for almost every kind of spring, wires, or special treatment.

# Benefits

Orthodontic Mini-Implant with Rectangular-Hole

## Saving

Saving doctors and patients' time without extra wire and accessories.

## Safe

No need to use extra wire to fix the archwire, and minimize the risk of injuring oral tissue and uncomfortable situation.

## Stable

Rectangular-hole provide better stability for 3D traction and torsion force.

## Simple

Easy and flexible to use the archwire.



Archwire Size Max 0.019"\*0.025

# Specification

Head Type	Tradition Type Classic Type Cap-Head Type Hook-Head Type		Flat-Head Type		Performance Type
Model	Non-Hole Round-Hole Slot-Hole		Non-Hole Round-Hole Slot-Hole		Non-Hole Round-Hole
Diameter(φ)	Ø1.6	Ø2.0	Ø1.5	Ø2.0	Ø1.4
Length					
6mmL					
8mmL					
10mmL					
12mmL					
14mmL					

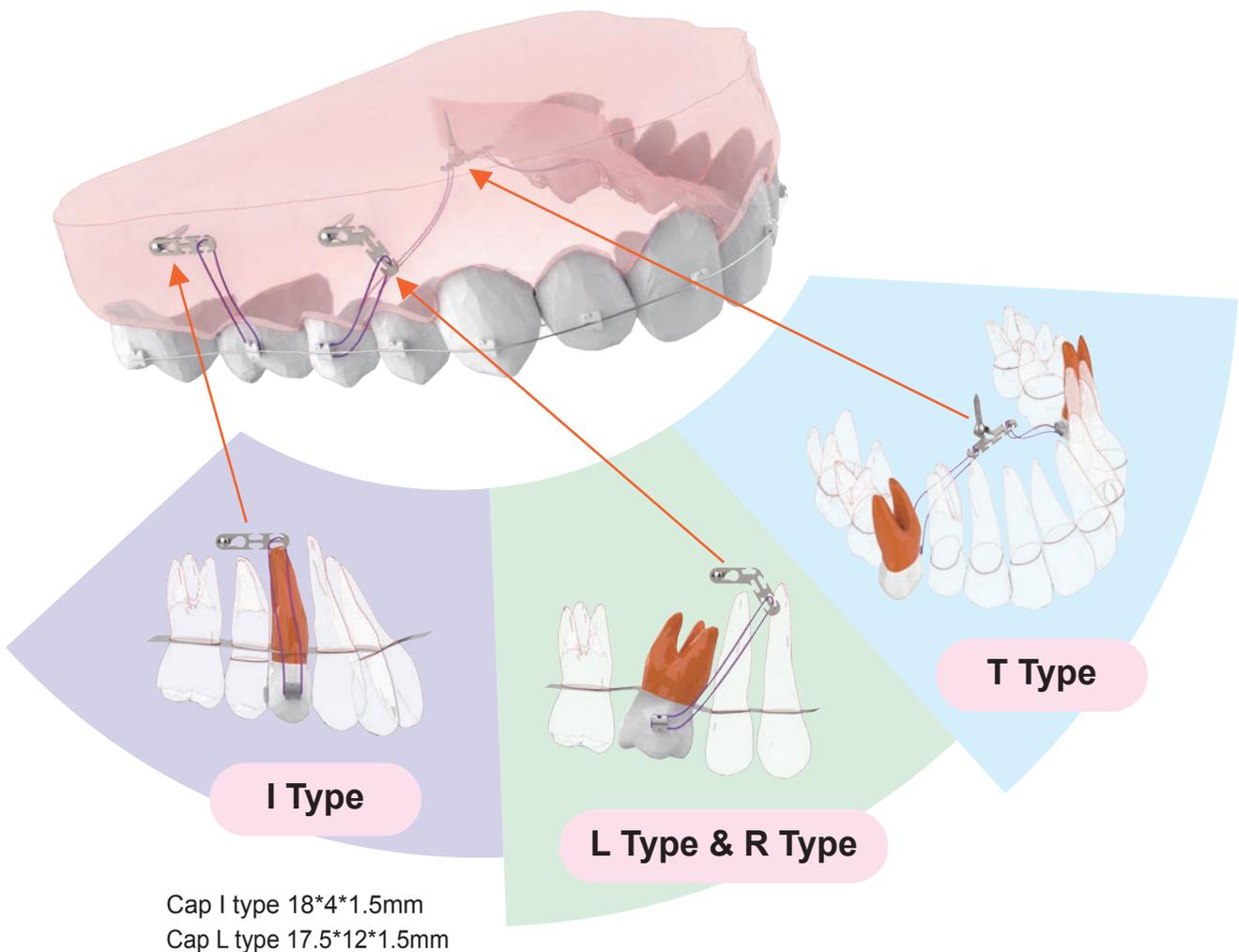
\*All products can select stainless steel and titanium material.

# Extension Hook

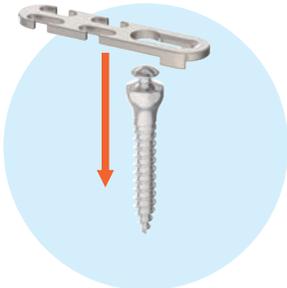
Expand the using range of anchorage screw and it can reach the location where anchorage screw can't insert.

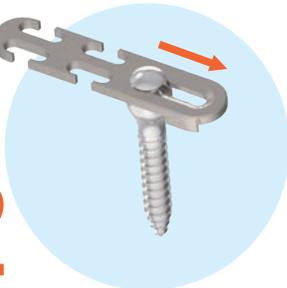
Can be used with Tradition Type, Flat-Head Type and Classic Type.

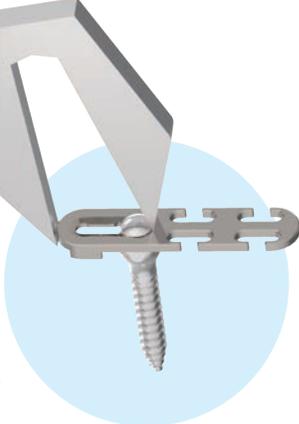
## Clinical Application



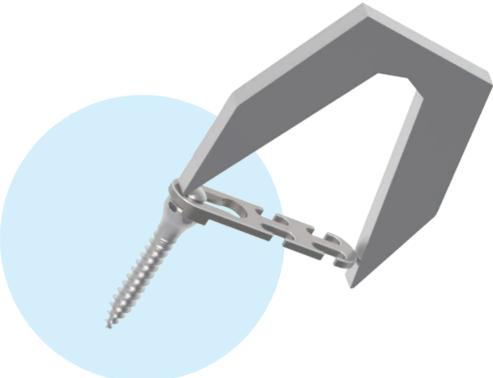
## How to use Extension Hook

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**1** Take out the extension hook, clip the hook-end with the forceps and expose the tightened end.
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**2** Attach the anchorage screw to the tightened end and tighten it to the wanted angle.
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**3** Ensure the wanted angle, keep the extension hook clipped and move the anchorage screw towards the tightening end.
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**4** The installation is complete when the extension hook and the anchorage screw are securely
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**5** When removing, apply force from the opposite direction with the forceps to loosen the anchorage screw from the tightened end, then remove the extension

 **Best traction**

 **No need to remove anchorage screws**

 **Easy to the desired angle**

 **Easy to anchorage screw**

# Surgical & Dental Tools

Drill



▲ Drill  $\Phi 1.0 \times 8\text{mm}$



▲ Drill  $\Phi 1.3 \times 10\text{mm}$

Blade



▲ Handpiece  
Screwdriver Blade  
 $\Phi 1.4, \Phi 1.5, \Phi 1.6, \Phi 2.0$



◀ Screwdriver Blade  
 $\Phi 1.4, \Phi 1.5, \Phi 1.6, \Phi 2.0$

Handle



▲ Mini Handle



◀ Handle

Mirror



◀ Dental Mirror

Case



◀ Instrument Case ▶



# Maxillofacial Bone Plate

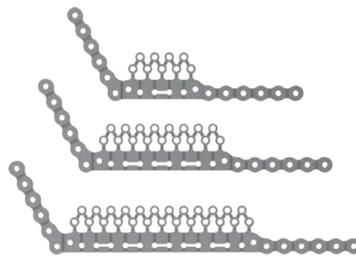
Made of medical grade metal which is better than traditional bone plate for maxillofacial surgery.

- More width design to cover mandibular bone for more support.
- More fixed holes for various directions.
- Thickness tapered design are perfectly fit to bone shape.



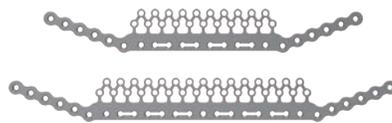
L Angle-Arc-Plate

R Angle-Arc-Plate



Chin-Arc-Plate (S)

Chin-Arc-Plate (L)



Full-Bar-Plate





## Our Consultant

### **Eddie Hsiang-Hua Lai** **DDS, MS, PhD, MOrtho, FDS-** **RCS(Edin), FICD**

According to the smooth cervical surface special design, it can significantly avoid residues and also reduce the inflammatory reaction effectively. Three different parts of screw body not only can provide stronger twisting strength, distributing bone stress and increasing the stability, to resist the pull-out and lateral forces, but also improving the efficiency of insertion.

So, the BIOKEY mini-implant system is designed for an easier implantation procedure can do by the orthodontists and even for the better retention forces. From our clinical experiences we found that the treatment period could reduce as well as enjoy the outstanding and successful results with this system.

#### **Present position**

1. **President**, Taiwan Association of Orthodontist, Taiwan
2. **Associate Professor**, School of Dentistry, National Taiwan University, Taiwan
3. **Head**, Division of Orthodontics, National Taiwan University Hospital, Taiwan
4. **President-elect**, South East Asia Association for Dental Education (SEAADE)
5. **Past President**, Association of Family Dentistry, Taiwan
6. **Past President**, Association of Hospital Dentistry, Taiwan

#### **Educational background**

1. **Ph.D.**, Graduate Institute of Clinical Dentistry, National Taiwan University, Taiwan
2. **M.S.**, Graduate Institute of Clinical Dentistry, National Taiwan University, Taiwan
3. **D.D.S.**, School of Dentistry, National Taiwan University, Taiwan

#### **Professional background**

1. **International Dental ambassador**, The Royal College of Surgeon of Edinburgh, UK
2. **Fellowship**, Faculty of Dental Surgery, Royal College of Physicians and Surgeons of Glasgow, UK
3. **Fellowship**, Faculty of Dental Trainers, The Royal College of Surgeon of Edinburgh, UK
4. **Fellowship**, Faculty of Dental Surgery, The Royal College of Surgeon of Edinburgh, UK
5. **Fellowship**, International College of Dentists (FICD)
6. **Membership of Orthodontists**, The Royal College of Surgeon of Edinburgh, UK

# Promotion Service

Biokey can offer relevant professional courses for doctors who provide orthodontic treatment using Biokey mini-implant system by Dr. Eddie Hsiang-Hua Lai.

## Day 1: Basic principal and theory of TAD

**1st session** Topic 1: Concept of disinfection.  
Topic 2: Understand the concept of anchorage in orthodontics.  
Topic 3: Be aware of the selection of TADs sites and sizes.  
Lab: Familiar with the TAD and instruments.

**2nd session** Topic 4: Learn the surgical placement for TADs.  
Topic 5: Biomechanical in orthodontics about TADs.  
Lab: TADs placement technique and place at least 2 TADS in orthodontics typodont during the lecture.

## Day 2: Advanced clinical application through TAD and dental implant

**3rd session** Topic 6: Orthodontic considerations in Esthetic implant dentistry.  
Topic 7: Implant-assisted Orthodontics.  
Topic 8: Orthodontic Treatment in Adult Patients.malocclusion).

**4th session** Topic 9: Over 40 clinical cases discussion (Different kinds of malocclusion).

## Day 3: Clinical practice of TAD at chairside

**5th session** Topic 10: TAD placement at chairside.  
Topic 1 1: Discussion after chairside observation.

**6th session** Topic 12: Analysis the clinical cases by the doctor (Every doctor must bring at least 1 case with full document).malocclusion).

## Clinical Case



**Before**



**Orthodontic**

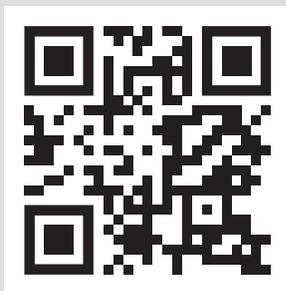


**After**



Leading High Precision Medical Engineering in the World

BM230222



website

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