Spider Screw®

Temporary Anchorage Device System

ORTHO TECHNOLOGY®

Made by HDC Italy

Spider Screw®

Temporary Anchorage Device System

Orthodontic Head

The orthodontic head was designed to facilitate appliance (wires, springs, etc.) placement. There is a bracket-like head featuring two intersecting .022" slots. The under tie-wing area can also function as another .022" x .025" slot and features two intersecting slots of .027" in diameter with chamfered inlets to simplify insertion of wires or ligatures. The small head size is designed for patient comfort.

Transmucosal Portion

The length of the transmucosal portion is variable and allows for optimal adaptation to different intraoral mucosa thicknesses during bio-maintenance. Short for areas of thinly attached gingiva. Long for areas with thick or freely moveable tissues.

The transmucosal portion is polished with a special treatment to help avoid soft tissue irritation and make cleaning easier to accomplish.

Intrabony Portion

The Spider Screw's thread shape has an asymmetrical profile making it easy to place while ensuring maximum stability and avoiding bone stress.

Spider Screw K1 1.5 mm and Spider Screw K2 1.9 mm, conical thread, are self-drilling and self-tapping which makes pre-drilling before insertion unnecessary dependent upon bone structure. This makes the Spider Screw K1 and Spider Screw K2 easy to place while reducing the risk of root damage.

High Quality Materials

- Grade 5 titanium construction
- Nickel-free for sensitive patients

The Key Advantages of the Spider Screw® System Versatility and Unique Patented Designs

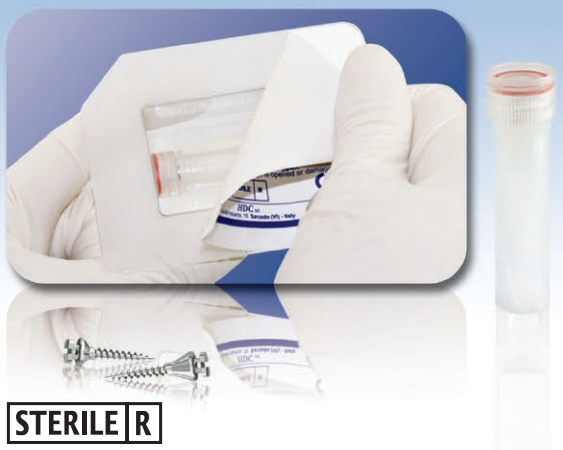
The Spider Screw System

The Spider Screw's geometry is a result of careful design in every single detail. In fact, the Spider Screw has obtained two international patents since its inception, due to its innovative characteristics: the simultaneous presence of the external and internal rectangular slots and round internal slots.

The Spider Screw is extremely versatile, due to its small dimensions and unique design. It is easily placed in either the maxilla or mandible, even where access is limited and bone quality is less than ideal. Placement is simplified by the self-drilling feature found in the K1 and K2 Spider Screw systems. Spider Pin requires pre-drilling.

The Spider Screw has been developed to offer a number of versatile anchorage options capable of immediate loading, which is possible because the Spider Screw is a non-osteointegrable implant and consequently force can be applied immediately after placement. The applied force can range from 50 to 300 grams depending on screw choice, bone quality, and the desired orthodontic movement.

The Spider Screw is an anchorage device that can be used during every phase of orthodontic treatment and is suitable for symmetric or asymmetric anchorage. The Spider Screw assists in the success of orthodontic treatment, both in adults and adolescents, by reducing treatment times without patient compliance.



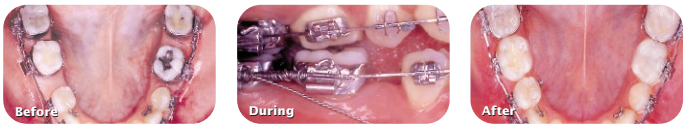
STERILE R

The Spider Screw package includes three removable labels containing important information (device name, reference code, lot number, etc.) which is to be applied to the patient's record card for traceability. Our sterile packaging ensures the Spider Screws are ready to use whenever you need them, saving your office valuable processing time. The screws have been cleaned, decontaminated and sterilized via gamma radiation, simply use sterile handling protocol.

Clinical Cases

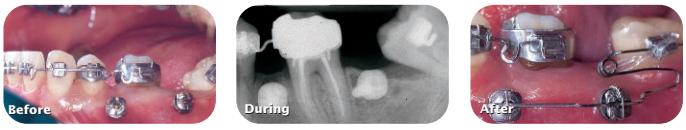
Intrusion Posterior Areas

Lower Molar Protraction Indirect Anchorage

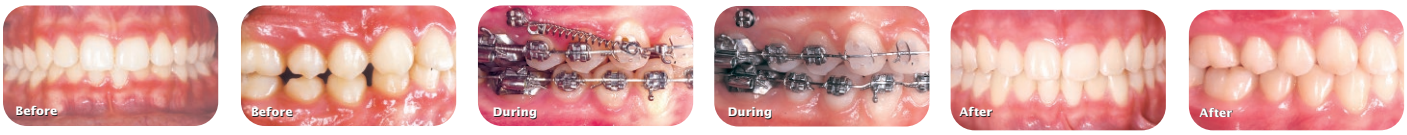


Direct Anchorage Uprighting and Molar Intrusion

Molar Uprighting and Intrusion



Class II Correction



Temporary Anchorage Device System Comparison Chart

Self-Ligating K1 Plus Series

Conical: Self-Drilling Thread

The Spider Screw Self-Ligating TAD - K1 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.1 mm drill provided to penetrate the cortical plate. The locking head is color coded yellow for easy identification.

Long Neck – 2.0mm

Length	Item #
6.5mm	SXL-1506
8.0mm	SXL-1508
10.0mm	SXL-1510

3.9mm diameter head
1.5mm diameter body

Self-Ligating K2 Plus Series

Conical: Self-Drilling Thread

The Spider Screw Self-Ligating TAD - K2 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.2 mm drill provided to penetrate the cortical plate. The locking head is color coded green for easy identification.

Long Neck – 2.0mm

Length	Item #
6.0mm	SXL-1906
7.0mm	SXL-1907
9.0mm	SXL-1909
11.0mm	SXL-1911

3.9mm diameter head
1.9mm diameter body

K1 Series

Conical: Self-Drilling Thread

The Spider Screw - K1 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.1 mm drill provided to penetrate the cortical plate.

Short Neck – 1.0mm

Length	Item #
6.5mm	SCR-1506
8.0mm	SCR-1508
10.0mm	SCR-1510

3.4mm diameter head
1.5mm diameter body

Long Neck – 2.0mm

Length	Item #
6.5mm	SCL-1506
8.0mm	SCL-1508
10.0mm	SCL-1510

3.4mm diameter head
1.5mm diameter body

K2 Series

Conical: Self-Drilling Thread

The Spider Screw - K2 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.2 mm drill drill provided to penetrate the cortical plate.

Short Neck – 1.0mm

Length	Item #
6.0mm	SCR-1906
7.0mm	SCR-1907
9.0mm	SCR-1909
11.0mm	SCR-1911

3.4mm diameter head
1.9mm diameter body

Long Neck – 1.0mm

Length	Item #
6.0mm	SCL-1906
7.0mm	SCL-1907
9.0mm	SCL-1909
11.0mm	SCL-1911

3.4mm diameter head
1.9mm diameter body

Spider Pin™

Cylindrical: Pre-Drilling Thread

The Spider Pin is self-tapping and requires pre-drilling. It is ideal for areas where a reduced size head is required and the intrabony portion is narrow. The simple design increases patient comfort and makes easy to attach coil springs or elastic chains.

Long Neck – 2.0mm

Length	Item #
8.0mm	SCL-1308

2.6mm diameter head
1.3mm diameter body

Long Neck – 2.0mm

Length	Item #
10.0mm	SCL-1310

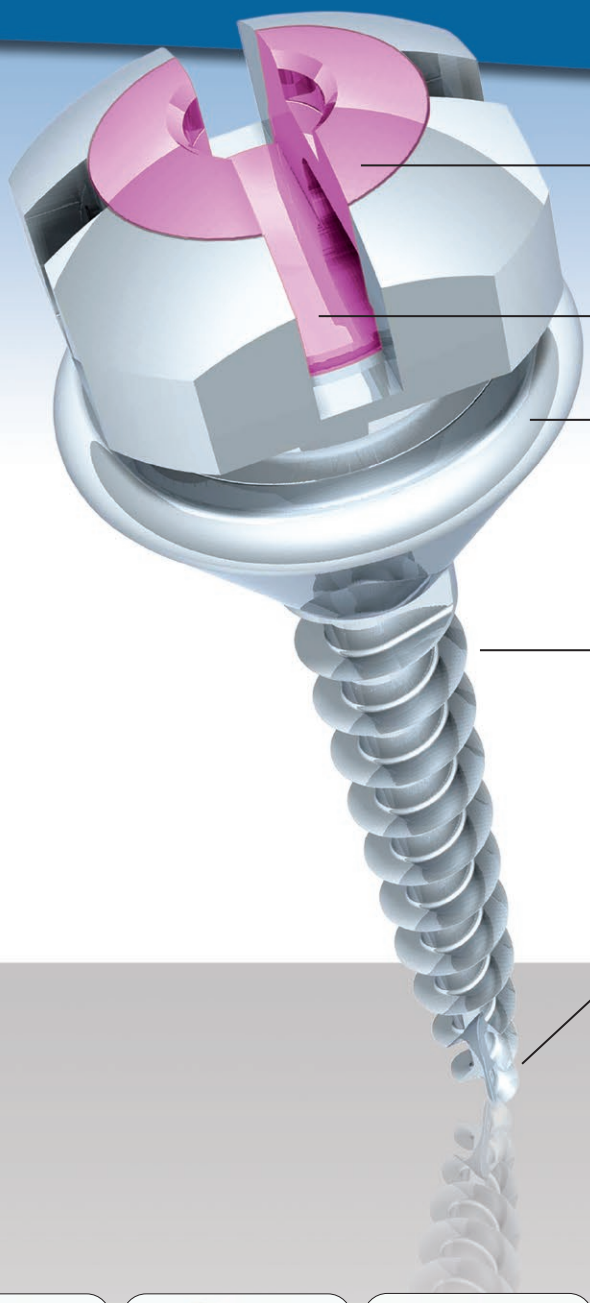
2.6mm diameter head
1.3mm diameter body

Short Neck: Reduced neck height for thin tissue (anterior and lateral areas)
Long Neck: Oversize neck height for soft thick tissue (posterior and lateral areas)

Product availability varies by country.
Ask your Sales Representative for details.

Spider Screw®

Temporary Anchorage Device System



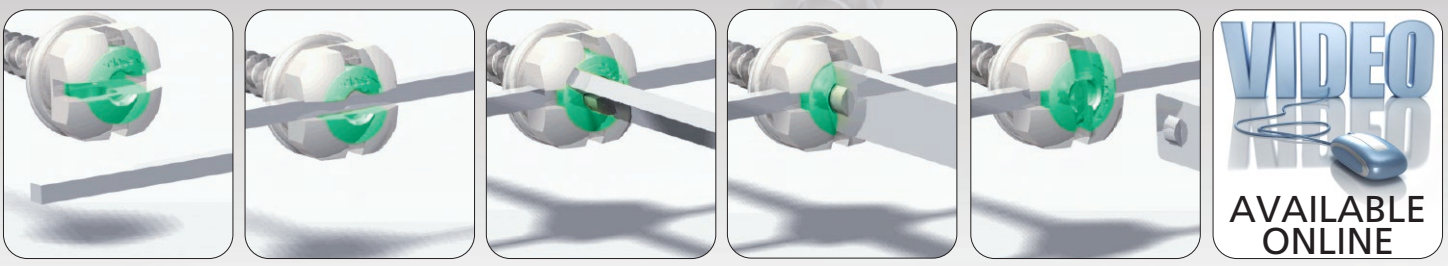
The locking head is color coded for easy identification

Head slot fits wires up to .018" x .022"

Long collared neck

Asymmetrical threads for easy placement and stability

Self-drilling and self-tapping with no pre-drilling required



Insert wire and turn Spider Screw Self-Ligating TAD head 90º with Self-Ligating Driver to secure

Spider Screw® Self-Ligating TAD K1, K2 Starter Kit

Spider Screw Self-Ligating TAD Starter Kit
Item #: CSS-6008

- 1x 1.1 mm x 8.0 mm drill - K1
- 1x 1.3 mm x 9.0 mm drill - K2
- 1x Pick-up driver shaft - sxl
- 1x Contra angle pick-up driver short - sxl
- 1x Self-ligating TAD key
- 1x Handle driver - sxl
- 1x Screw driver body
- 1x Organizer

Replacement Organizer - Self-Ligating TAD K1, K2
Item #: CSS-6000

Entire Kit Can Be Sterilized
- Autoclavable up to 273˚F/134˚C
- Heat Sterilizable up to 356˚F/180˚C
- Chemiclavable up to 297˚F/132˚C

1 Year Warranty on Instruments

Included in Spider Screw Self-Ligating TAD K1, K2 Starter Kit

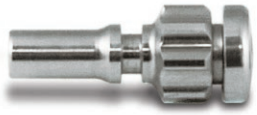
8.0 mm Drill - K1
Item #: FSC-1108-S
1.1 mm x 8.0 mm

9.0 mm Drill - K2
Item #: FSC-1309
1.3 mm x 9.0 mm

Pick-Up Driver Shaft - SXL
Item #: DSP-5652S
52.0 mm

Contra Angle
Pick-Up Driver Short - SXL
Item #: DPQ-3420
20.0 mm

Self-Ligating TAD Key
Item #: DXL-2820



Handle Driver - SXL
Item #: DSQ-3424

Screw Driver Body
Item #: DSX-1690N-S

Optional Spider Screw Self-Ligating TAD Items

Contra Angle
Pick-Up Driver Long - SXL
Item #: DPQ-3425
25.0 mm

Great for **Larger Hands** or for a **Firmer Grip**

Round Replacement End for Screw Driver Body DSX-1690N-S
Item #: RCX-2545

Wide and **Round End Handles**
provide easier, more ergonomic grip for larger hands

Screw Driver Body Wide Handle
Item #: DSX-1690RC

Spider Screw®
K1, K2 Starter Kit

Spider Screw Starter Kit
Item #: CSS-4008

- 1x 1.1 mm x 8.0 mm drill - K1
- 1x 1.3 mm x 9.0 mm drill - K2
- 1x Pick-up driver shaft
- 1x Cross driver shaft
- 1x Contra angle pick-up driver
- 1x Handle driver
- 1x Screw driver body
- 1x Organizer

Replacement Organizer - K1, K2
Item #: CSS-4000

Entire Kit Can Be Sterilized
- Autoclavable up to 273˚F/134˚C
- Heat Sterilizable up to 356˚F/180˚C
- Chemiclavable up to 297˚F/132˚C

1 Year Warranty on Instruments

Built-in millimeter scale ensures correct Spider Screw selection

Included in Spider Screw K1, K2 Starter Kit


8.0 mm Drill - K1
Item #: FSC-1108-S
1.1 mm x 8.0 mm


9.0 mm Drill - K2
Item #: FSC-1309
1.3 mm x 9.0 mm


Pick-Up Driver Shaft
Item #: DSP-5052N-S
52.0 mm


Cross Driver Shaft
Item #: DSX-2852N-S
52.0 mm


Contra Angle Pick-Up Driver
Item #: DPQ-2820-S
20.0 mm


Handle Driver
Item #: DSQ-2824-S


Screw Driver Body
Item #: DSX-1690N-S

Optional Spider Screw Items


10.0 mm Drill
Item #: FSC-1210-S
1.2 mm x 10.0 mm


Pick-Up Handle Driver
Item #: DPH-2824-S


Contra Angle Pick-Up Driver
Item #: DPQ-2825
25.0 mm


Contra Angle Cross Driver
Item #: DPX-2830-S
30.0 mm

- Automatically releases when the calibrated torque is reached to avoid overloading
- Torque can be set from 5 to 20 Ncm
- Helps eliminate screw breakage

Torque Screw Driver Body
Item #: DST-1600-S
Note: Pickup driver sold separate. Sterilizable.

Download Instructions for Use here: www.orthotechnology.com/pdf/IFU/Torque_Driver_IFU.pdf

Spider Pin™
Temporary Anchorage Device System
For Areas Where a Reduced Size Head is Required

Spider Pin Starter Kit

Spider Pin Starter Kit
Item #: CSS-3006

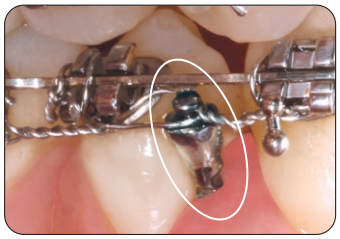
- 1x Screw driver body
- 1x Contra angle pick-up driver - pin
- 1x Short handle driver - pin
- 1x Pick-up handle driver shaft - pin
- 1x 0.9mm x 10.0mm drill
- 1x Organizer

Replacement Organizer
Item #: CSS-3000

Entire Kit Can Be Sterilized
- Autoclavable up to 273˚F/134˚C
- Heat Sterilizable up to 356˚F/180˚C
- Chemiclavable up to 297˚F/132˚C

- Simple and easy to use
- Smooth, rounded design for patient comfort
- Perfect for NiTi closed coil spring attachments
- Infrabony portion diameter is 1.3mm at the widest point
- Ideal for narrow interproximal spaces
- Requires no patient cooperation and reduces treatment time
- Pre-drilling required
- Self-tapping threads

1 Year Warranty on Instruments



Included in Spider Pin Starter Kit

Pick-Up Handle Driver Shaft - Pin
Item #: DSP-2352N-S
52.0mm

Short Handle Driver - Pin
Item #: DSQ-2324-S

10.0mm Drill - Pin
Item #: FSC-0910-S
0.9mm x 10.0mm

Contra Angle Pick-Up Driver - Pin
Item #: DPQ-2322-S
20.0mm

Screw Driver Body
Item #: DSX-1690N-S

Make TAD Treatment Complete

Spider Screw Demo Typodont

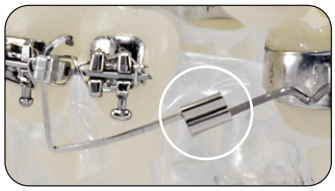
Precision crafted with a clear flexibase and rooted teeth to visualize Spider Screw placement. The perfect treatment aid for case presentation. Comes completely ligated with Stainless Steel Bracket System, 3x Spider Screws (1x Self-Ligating K1 Plus and 2x K1), 2x TAD Coil Springs, 2x Split Curved Hooks, 2x TruFit 2.0 1st Molar Bands, 4x TruEase™ Mini Buccal Tubes, and 2x TruEase™ Buccal Tubes to simulate a few of the many versatile treatment options the Spider Screw system has to offer.

Spider Screw Demo Typodont
Item #: G50-801

Crimpable Tubes

- Easily connect auxiliary and custom attachments to archwire
- Perfect for all orthodontic anchorage systems
- Diverse TAD technique use
- High quality stainless steel

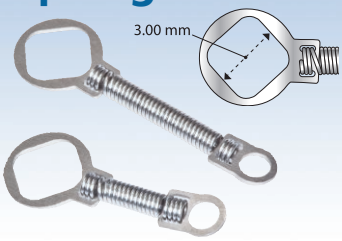
Cross Tubes
Item #: 100310
2.0 mm length, .022" slot,
10 per pack Made in the USA



Double Tubes
Item #: 100300
3.0 mm length, .022" slot,
10 per pack Made in the USA

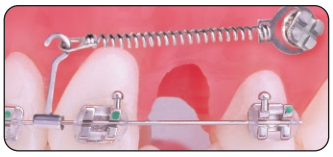
TruFlex™ Nickel Titanium TAD Closed Coil Springs

- Specifically for use with the Spider Screw System
- Can also be used with other TAD systems with a head size smaller than 3.0 mm



Light Force 100 gm
9.0 mm (.009" x .030") 900-104L
12.0 mm (.009" x .030") 900-105L

Medium Force 150 gm
9.0 mm (.011" x .030") 900-104M
12.0 mm (.011" x .030") 900-105M



Heavy Force 200 gm
9.0 mm (.012" x .030") 900-104H
12.0 mm (.012" x .030") 900-105H
10 per pack Made in the USA

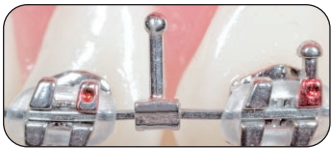
Crimpable Archwire Hooks
with Split Archwire Opening

- Excellent for use with miniscrew attachments
- Easily and securely attach closed coil springs or any auxiliary attachments
- Can be placed onto archwires in or out of the mouth
- Curved 6.8 mm tall and fits archwires up to .022" x .025"

Patient Left..... 20104L
Patient Right 20104R
20 per pack Made in the USA

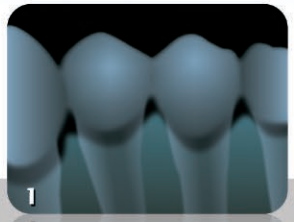
Crimpable Ball Hooks
with Split Archwire Opening

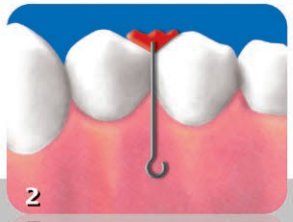
- High quality stainless steel
- Can be placed precisely without removing the archwire
- Crimps to rectangular archwires up to .022" x .025"

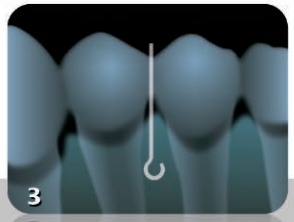


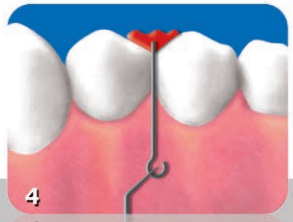
Split Ball Hooks:
3.3 mm tall 20105
20 per pack Made in the USA

General Overview









Creator of the Spider Screw

Giuliano Maino DDS, MD

Dr. Maino maintains a private orthodontic practice in Vicenza, Italy, and is Visiting Professor of Orthodontics at Ferrara and Insubria University. He is an active member of the Angle Society of Europe, the Italian Society of Periodontology, American Association of Orthodontists, Italian Society of Orthodontics, and European Orthodontic Society. Dr. Maino is also a Post Graduate of Clinical Training in Orthodontics at Boston University.

Indications

Spider Screw Anchorage System can be utilized in many treatment options:

- All Malocclusions
- Distalization/Mesialization
- Intrusion/Extrusion
- Protraction/Retraction
- Anchorage Recovery
- Anchorage Reinforcement
- Maximum Anchorage Control
- Asymmetric Arch Treatments
- Uprighting Molars
- Pre-Prosthetic Orthodontic

Insertion Sites

Maxillary	**Mandibular**
Zygomatic buttress	Edentulous ridges
Edentulous ridges	Retromolar region
Palate	Mandibular ramus
Tuberosity	Interadicular areas
Interadicular areas	Symphyses

Spider Screw K1 - K2 Placement

If a Spider Screw is to be inserted in an edentulous area where there is bone availability, references from a panoramic radiograph can be sufficient.

1. In areas close to delicate anatomical structures, such as interadicular spaces, a long cone radiograph is recommended before Spider Screw placement.

2. A surgical splint can be made with orthodontic wire, fixing it to the teeth with acrylic or thermoplastic resin. The orthodontic wire is inserted in the acrylic resin and is appropriately bent so that its tip corresponds to the point of insertion of the Spider Screw.

3. Use a periapical radiograph (by using the long-cone parallel technique) to verify the correct placement of the orthodontic wire.

4. The insertion site can be marked with a pressure point or methylene blue dot on the soft tissue. In mobile mucosa it is recommended to leave the surgical guide in place during the drilling phase and/or the screw insertion.

Indications for Treatment, Site Selection, Placement and Removal

5. After site disinfection (chlorhexidine) insert the Spider Screw K1 or K2 using the manual pick-up screwdriver body + handle driver shaft. It is also possible to use the contra-angle pick-up driver at low speed. In order to avoid excessive torque stress during insertion (which could cause bone compression and consequent recession or cause the screw to break), it is recommended to use a technique of alternating between screwing and unscrewing to gradually ease the screw into position.

6. In the case of very compact bone use a spiral drill to make a pilot hole which makes screw insertion easy to perform.

Post Application Patient Instructions

Application of chlorhexidine rinse 2 – 3 times per day for the first 7 days. Perform normal hygiene procedures. The patient should brush the screw normally as if it were a tooth.

Spider Screw Removal

To remove the Spider Screw, simply unscrew with the appropriate screw driver. It can usually be accomplished without anesthesia. During unscrewing it is recommended to use a technique of alternating between unscrewing and screwing. Healing takes place in a few days.

General Information

The placement of the Spider Screw is a procedure requiring specific knowledge of anatomy and technique. It is absolutely necessary that it is carried out by specifically trained doctors. It is important to know that improper patient selection and/or incorrect technique can cause placement failure and/or loss of supporting bone. An effective and complete screening of the patient must be performed and each case carefully evaluated. A very thorough examination is needed, as well as anatomical reference for the evaluation of bone quantity and quality using radiographic research (Long Cone Endoral Radiograph, Orthopantograph, Teleradiography, and Computerized Tomography).

Carefully read the instructions for use inside the package before Spider Screw placement. The Spider Screw is for single use only and should not be reused.

Use only the instruments mentioned in this brochure, making sure that all the instruments are sterilized and efficient. It is suggested to disinfect the insertion area and give local anesthesia as needed.

It is very important that the clinician attends a training course for a complete overview of all the possible applications, as this brochure shows only a few.

Spider Screw System

For articles and more information visit:
orthotechnology.com/product-literature

ORTHO TECHNOLOGY®

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Outside US: 1-813-501-1650

www.orthotechnology.com

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