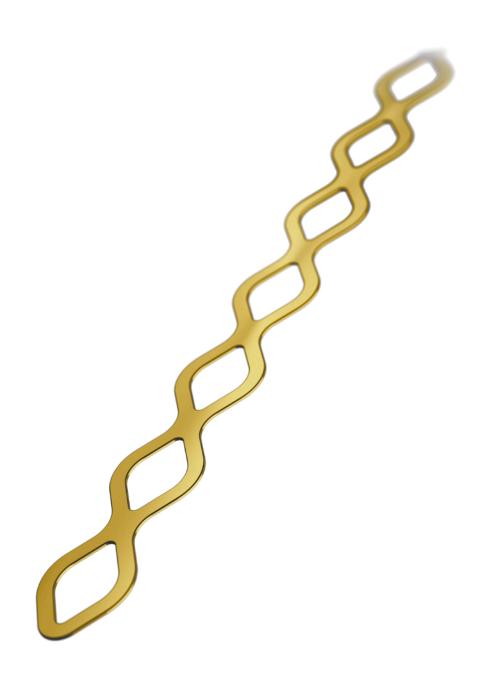


SURGICAL TECHNIQUE

# TTS – Titanium Trauma Splint



**MODUS** 

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For further information regarding the MODUS product line visit www.medartis.com

# Introduction

#### **Product Materials**

**Product** Material TTS Tooth Splint Pure titanium

#### Indications

The TTS Tooth Splint is used for:

- Tooth stabilization after repositioning or replantation (acute trauma cases)
- Tooth stabilization after intentional (planned) replantation

#### Contraindications

- Replantation of deciduous teeth
- Known allergies and/or hypersensitivity to splint material
- Patients who are incapacitated and/or uncooperative during the treatment phase

### Color Coding

The colors of the TTS Tooth Splints have no impact on material properties or geometry. The colors can be chosen for esthetical reasons.

## Surgical Technique

#### 1. Adapt the splint

Adapt the splint to match the patient's dentition and shape of the dental arch. Cut the splint to the desired length (e.g. by using a crown cutter or side cutter).

Manually contour the splint to the curvature of the dental arch. No instruments must be used for bending.



For sufficient stabilization of traumatized/replanted teeth, the splint should cover at least two healthy teeth to be stabilized.

#### Warning

Do not repeatedly bend the splint in opposite directions, since this may cause the splint to break.



#### 2. Clean the tooth surfaces

Thoroughly clean, rinse and dry the enamel surfaces.



Cleansing

#### 3. Etch the tooth surfaces

Etch the enamel surfaces thoroughly with ortho-phosphoric acid according to the instructions of the bonding agent manufacturer. Rinse with water and dry the tooth surfaces thoroughly after etching.

#### Warning

To allow appropriate bonded restoration, ensure to create a dry operating field.



Etching

#### 4. Bond the tooth surfaces

Apply the adhesive agent (bonding) according to the instructions of the bonding agent manufacturer. Light-cure the bonding agent as described by the manufacturer.



Bonding agent

#### 5. Position the splint

Position the splint by hand or using instruments. Ensure that the rhomboid openings of the splint match the etched/ bonded sites.

#### Warning

Take care to place the splint with distance to the gingiva.

#### 6. Fix the splint with flowable composite

Fix the splint to the teeth on both sides of the traumatized/ replanted tooth/teeth by applying flowable composite to the rhomboid openings of the splint according to the instructions for use of the composite manufacturer. Light-cure the composite as described by the manufacturer. Reposition the traumatized/replanted tooth/teeth and bond it/them to the splint by applying flowable composite to the rhomboid openings of the splint according to the instructions of the composite manufacturer. Light-cure the composite as described by the manufacturer.



The splint must be fixed smoothly and directly onto the enamel surfaces to minimize the risk of irritation or inflammation of the soft tissue.

Inadequate composite fixation of the splint (e.g. due to insufficient drying/bonding) may result in loosening of the splint, which entails the risk of swallowing and aspiration of the device.

#### Caution

Use of excessive amounts of composite may cause hygiene problems.

#### 7. Final check of the splint

Check the occlusion and check for sharp edges of the splint that could irritate the lips and soft tissue of the cheek.

#### Warning

To avoid/reduce possible soft tissue irritations, cover the ends of the splint with a small amount of composite.



Composite

## Removal

### Removal of Titanium Trauma Splints

The decision of when to remove the splint is the responsibility of the treating dentist. In general, the splint is designed for temporary fixation of traumatized/replanted teeth until sufficient periodontal healing has taken place. Prolonged and rigid splinting may lead to adverse effects such as ankylosis and resorption. Splinting periods should be in accordance with clinical and radiological findings of the individual case.

#### Caution

The recommended splinting period is 2–4 weeks at most.

#### 1. Removing the composite on top of the splint

Remove the composite to the level of the splint using rotating instruments.

Avoid grinding down to the enamel surface.

#### 2. Removing the splint

Hold the splint at one end and peel it off the tooth surfaces (manually or using dental tweezers).





### 3. Removing the composite

Remove any residual composite and refine the enamel surfaces with polishing disks. Be careful not to damage the enamel.

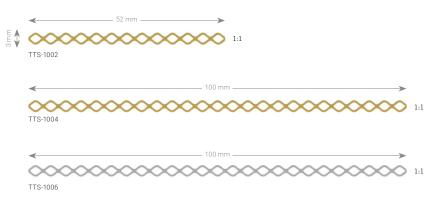
After removal of the splint, apply a fluoride-containing solution for remineralization of the etched enamel.



# **Products**

## TTS Tooth Splint

Material: Ttanium (ASTM F67) Thickness: 0.2 mm



Art. No.	Description	Color	Pieces/ Pkg
TTS-1002	52 × 0.2 mm	matt, gold	1
TTS-1004	100 × 0.2 mm	matt, gold	1
TTS-1006	100 × 0.2 mm	matt. silver	1

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