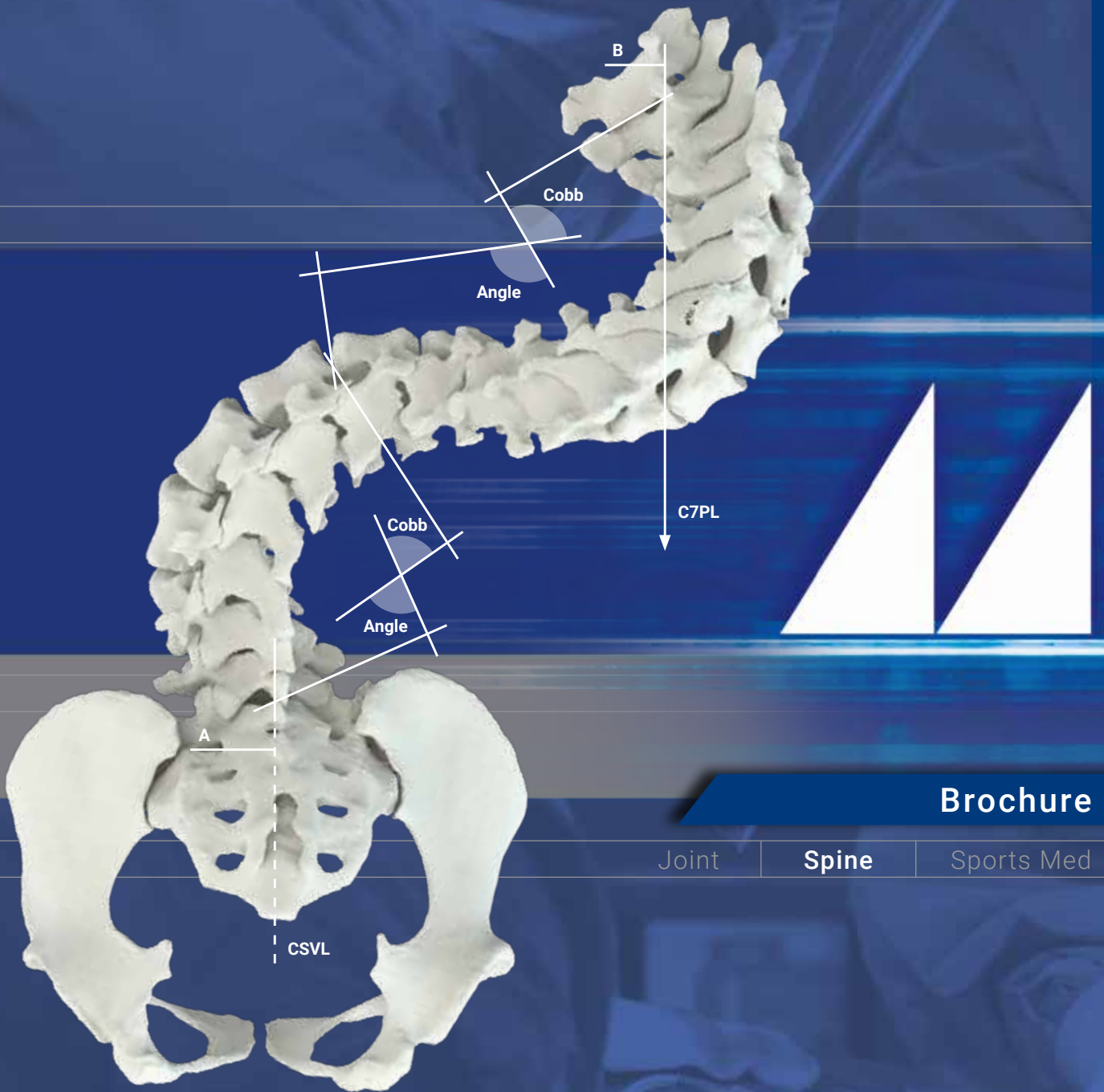




MEDACTA UNIVERSAL SCREW TECHNOLOGY

SPINE DEFORMITY CORRECTION PORTFOLIO



Brochure

Joint

Spine

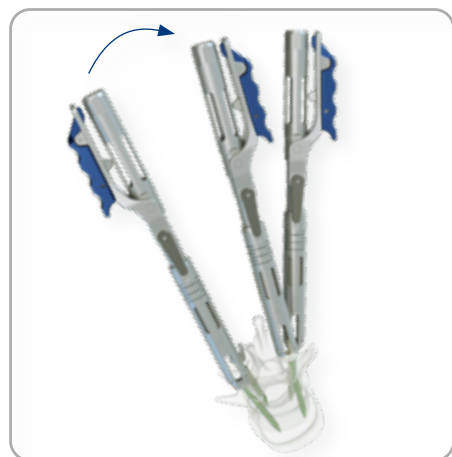
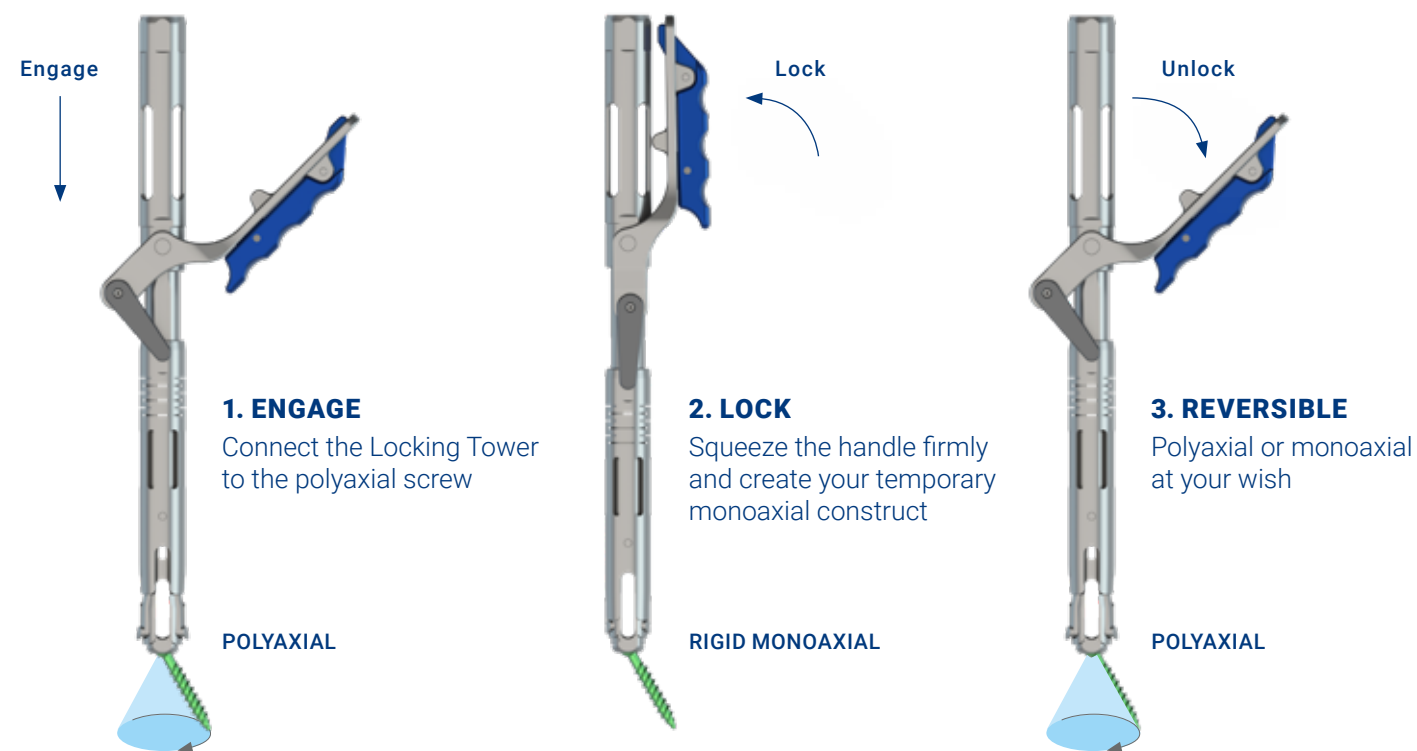
Sports Med



The Medacta deformity platform is designed to assist the surgeon in all the steps of a deformity surgery with different techniques. While challenging screw positioning is facilitated by the MySpine patient-specific technology, the multisegmental spine derotation is performed with the Locking Tower. The M.U.S.T. EnBloc further enriches the platform when rigid enbloc derotation is preferred.

### ONE INSTRUMENT, MULTIPLE CORRECTIONS

The Locking Tower allows the temporary locking of the screw polyaxiality, thus creating a monoaxial construct without rod and set screw in place through an easy single maneuver.



#### VERTEBRAL BODY DEROTATION

Secure handling and fast engagement ensure stable and accurate derotation maneuvers.



#### SPONDYLOLISTHESIS REDUCTION

Up to grade II spondylolisthesis Meyerding scale reduction, with no need of reduction screws.

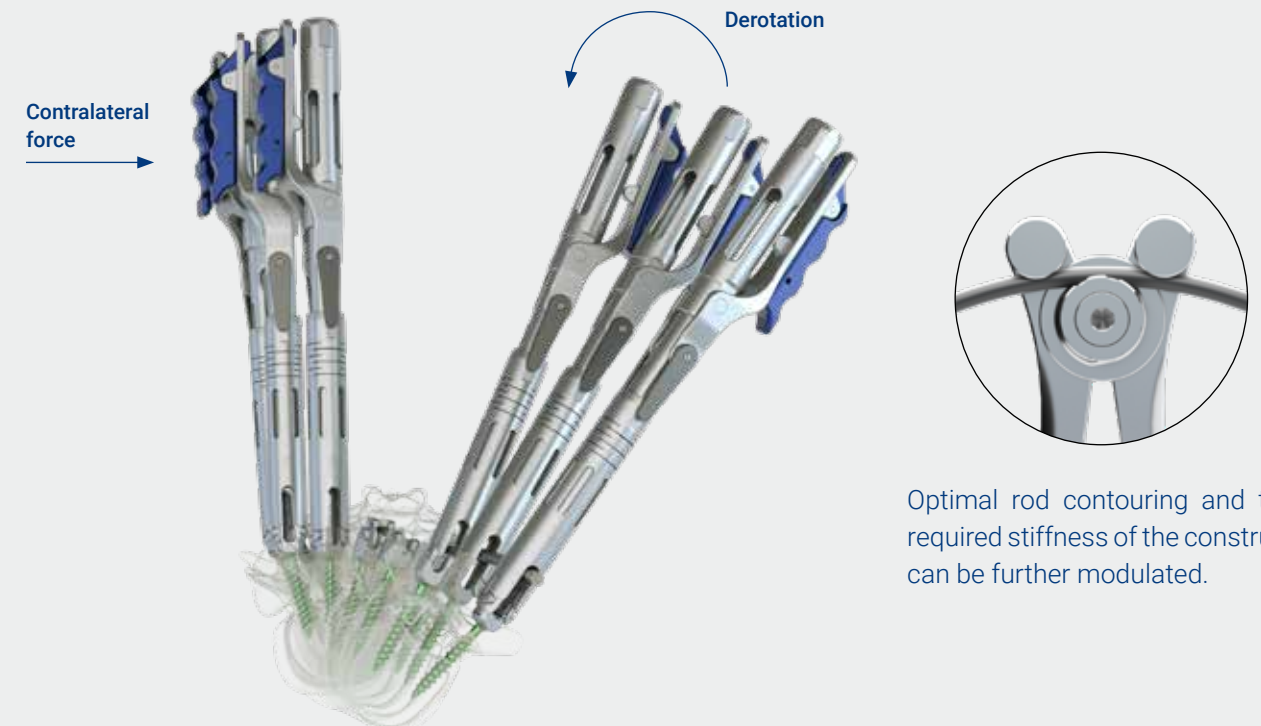


#### PARALLEL COMPRESSION AND DISTRACTION

Facilitate the disc preparation for cage insertion and the fine-tuning before closure.

### MULTISEGMENTAL SPINE DEROTATION

The Locking Tower allows for the performing of vertebral body derotation from single to multiple levels. The switch from polyaxial to monoaxial construct can be performed multiple times through a reproducible technique.



The application of simultaneous derotation and contralateral forces allows for proper spine alignment through multisegmental maneuvers.

### FROM FREE MULTISEGMENTAL TO RIGID EN BLOC DEROTATION

The M.U.S.T. EnBloc is designed to create your own rigid derotation blocks thanks to a versatile system of towers and clamps.

#### U.S.T. EN BLOC



Choose your towers, create derotation blocks and correct.



## SAFE, FAST AND ACCURATE SCREW PLACEMENT

MySpine is a patient-specific pedicle screw placement guide, allowing the surgeon to determine his/her preoperative 3D planning, based on low dose CT images of the patient's spine. This innovative technology offer potential benefits to both the surgeon and the patient.

- Accurate screw positioning, up to **100%**<sup>[1,2]</sup>
- OR and hospital time reduction, **~30%**<sup>[1,3]</sup>
- Patient and OR staff X-ray dose reduction, **~30%**<sup>[1,4]</sup>



Pre-plan your deformity surgery choosing the best screw trajectory and parameters.

Apply the 3D printed MySpine guide and implant the screws following the pre-planned trajectory.

## VERSATILE PORTFOLIO, CUSTOMIZED ROD REDUCTION

Several options are available for performing the rod reduction manoeuvre. Create your own combination from the Medacta portfolio.



### ONE STEP REDUCER

Quick reduction of 10mm in ONE step



### LOCKING TOWER

All in One Instrument, reduce up to 18mm



### TWO STEP REDUCER

Gradual and robust, for demanding reduction- up to 30mm



### SHORT REDUCER

Low profile solution

- Fast engagement
- Smooth reduction up to 30mm

## REFERENCES

[1] Cecchinato R. et al. "Pedicle screw insertion with patientspecific 3Dprinted guides based on lowdose CT scan is more accurate than freehand technique in spine deformity patients: a prospective, randomized clinical trial" *European Spine Journal*, April 2019. [2] Lamartina et al. Pedicle screw placement accuracy in thoracic and lumbar spinal surgery with a patient-matched targeting guide: a cadaveric study. *Eur Spine J.* 2015 Nov;24(7). [3] Landi et al. Spinal Neuronavigation and 3D-Printed Tubular Guide for Pedicle Screw Placement: A Really New Tool to Improve Safety and Accuracy of the Surgical Technique? *J Spine* 2015, 4:5 MySPINE ACCURACY VS GUIDED TECHNIQUE. [4] Lamartina et al. Adolescent idiopathic scoliosis surgery with patient-specific screw placement-guide *Eur Spine J.* 2014 Dec;23(12). MySPINE VIDEO CASE / REDUCED DOSE RADIATION

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