UNiD™ Patient Specific Rod
EACH PATIENT IS UNIQUE
PELVIC INCIDENCE

UNIQUE TO EACH PATIENT

...FROM 35° TO 85°

IMPACTS SAGITTAL ALIGNMENT

THEREFORE, EACH CORRECTION MUST BE **SPECIFIC**.
SAGITTAL ALIGNMENT & OUTCOMES

SAGITTAL ALIGNMENT & CLINICAL OUTCOMES ARE DIRECTLY LINKED\(^4\).

PT < 20-25°
PI-LL < 10°
SVA < 5cm

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<td>PI-LL</td>
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KEY ISSUE

62% of patients remained sagittally malaligned after surgery.²

Sagittal alignment is the most dominant predictor of patient outcomes.

**ADDITIONAL KEY ISSUE**

Greater risk of developing **adjacent segment disease** when post-operative $\Delta$PI-LL $\geq 10^\circ$ for 1 to 3 level DEGEN constructs.\(^5\)

**REVISION** probability 10 times more likely if sagittal alignment is not achieved during primary surgery.\(^5\)

NOT SO EASY TO BEND A ROD

• DIFFICULT TO ASSESS THE ANGLE
  NEEDED TO RESTORE SAGITTAL ALIGNMENT

• DIFFICULT TO BEND A ROD
  TO THE DESIRED CURVE
THE IMPACT OF ROD BENDING

RISK OF ROD FRACTURE
9.0%

OF PATIENTS HAD ROD FRACTURES AND EXHIBITED SIGNIFICANTLY HIGHER PI-LL MISMATCH.  

INTRAOPERATIVE ROD CONTOURING USING A FRENCH BENDER SIGNIFICANTLY REDUCES FATIGUE STRENGTH

+ BENDING RODS IN THE OR INCREASES OPERATIVE TIME

Inclusion Criteria: >18+ years old, ≥5 levels posterior instrumented fusion, minimum 1-year follow-up.

Fracture Rates: 22.0% with PSO, 4.7% without PSO. CoCr (14.2%), Stainless Steel (3.8%), Titanium (2.4%).

Where we are:
- High rate of failure in sagittal realignment
- Manual bending of the rod can affect mechanical resistance
- Manual bending is time consuming

Why not materialize your surgical plan?
SOLUTIONS: COMPREHENSIVE SERVICE

- DIGITIZED CASE PLAN SIMULATION
- PATIENT-SPECIFIC IMPLANTS
- ADVANCED POST-OPERATIVE ANALYSES

X-RAY MEASUREMENTS
OUR VIRTUOUS CYCLE
ROD FEATURES

Diameters: 5.5 & 6.0 mm

Materials: titanium alloy and cobalt chrome

Lengths: no limit

Industrial smooth Bending process
HOW DOES IT WORK

1. PLAN

2. ORDER

3. EXECUTE

medicrea.com | leading personalized spine
INFORMATION REQUIRED TO GENERATE A PATIENT-SPECIFIC ROD

UNiD™ LAB

PATIENT ID

REQUIRED:
- IMAGING
- DATE OF SURGERY
- INITIALS (DOE, John = Dj)
- GENDER, AGE, HEIGHT
- PATHOLOGY/INDICATION

SURGEON PLAN

REQUIRED:
- LEVELS TO BE INSTRUMENTED
- STRATEGY
  - (CAGES, OSTEOTOMIES, ET AL)
- ROD MATERIAL
- ROD DIAMETER

Please contact unid unid@medicrea.com
APPLICATIONS
Adult deformity

Pediatric

Degenerative
Over 1500 SURGERIES* PERFORMED WITH UNiD™
Conclusion

Sagittal alignment achievement requires:
- Preoperative analysis
- Case planning materialization
- Implant specifically designed