

It's essential to recognize that everyone has different anatomies and conditions.

If you are considering SRS surgery, your surgeon should create a customized surgery plan tailored to your specific condition.

They should also explain the reasons for applying specific surgical procedures, such as resection, suturing, plating, or combinations, and how these procedures will lead to successful surgical outcomes.

**As surgical procedures to treat SRS are continuously evolving and improving, below are short explanations of SRS surgical procedures.**

- Please note that the surgical procedures for SRS involve stabilizing the rib(s), which causes damage or irritation to the intercostal nerves and surrounding areas.

---

### RESECTION

- Trimming down the tip of the rib causes damage or irritation and impinges the intercostal nerve above.

### SUTURES

- Two Figure "8" nonabsorbable sutures are placed through the cartilage and rib to anchor the rib above to stabilize the costal margin.
- Interlocking lattice-type nonabsorbable sutures around the cartilage to stabilize the costal margin.

### PLATES: (newest first)

#### PEEK plate procedure: (permanent)

- Customized cutting of the KLS Martin PEEK (high-performance thermoplastic polymer with an elastic modulus similar to human bone ) plate to length and secured to the stable cartilage above vertically, using self-drilling screws (Convergent Biaxial fixation or "CB3", secure osteosynthesis is possible using single-length, drill-free, monocortical locking screws).
- This PEEK, Polyetheretherketone plate allows the chest wall anatomy to remain in a normal orientation with intercostal spacing and Rib head angulation posteriorly by avoiding non-anatomic angle induction anteriorly as well.

#### Titanium Mesh & Plate procedure:

- The KLS Martia pre-contoured titanium mesh implants, A titanium mesh is secured by titanium plates screwed to the bone. This mesh is flexible and cannot compress in on itself, preventing the ribs from slipping.
- The titanium plates are positioned horizontally along each rib instead of vertically, ensuring that they do not affect your flexibility.

#### Costal margin reconstruction "3.0" procedure WITH demineralized bone matrix:

- Involved small harvested cartilage from the rib is placed between as a spacer, with an injection of the demineralized bone matrix at the rib tip, then overlay two customized cuts of BioBridge (absorbable) plate placed, anchored to the stable rib above with sutures to stabilize.

#### Costal margin reconstruction "3.0" procedure: (This procedure has reported a high rate of failures.)

- A small cartilage is removed from the rib and placed as a spacer. The BioBridge (absorbable) plate is placed vertically and anchored to the stable rib tip above, with sutures to stabilize it.