SOCORE Cervical



Surgical Procedure



Table of Contents

Instruments Range	4
Indications	6
Occipital Plate Fixation	6
Cervical Fixation	8
Crosslink	11

Instruments Range





Indications

The SOCORE Cervical System is indicated for spinal fusion procedures for patients with degenerative disc diseases, spinal stenosis, fractures and occipitocervical dislocation. The SOCORE Cervical System is intended for posterior cervical fixation in an open approach.

Occipital Plate Fixation

Assemble the connectors to the occipital plate (*Figure 1*) and slightly tighten the locking screws to allow a controlled mobility during rod insertion. Insert the adapted size of connector through the oblong hole and turn it slightly whereby the collar on its end prevents its loosening.

The Plate Holder is used to put the plate in a correct position on the occiput (*Figure 2*). Drill a hole to the desired trajectory through the occipital plate using the Awl until the stop (*Figure 3*). Tap the hole until desired depth (*Figure 4*) using the occipital tap. The occipital tap is easily identified with its shorter threading and its smooth profile. Carefully control tapping depth to avoid potential harm to the patient. Drilling and tapping are required for all screws.







Figure 3

Figure 4

Use the standard screwdriver to insert a Ø4mm screw in each hole (*Figure 5*). A Ø4.5mm emergency screw may be used in case of non optimal fixation. It is advised to insert all the screws before strong tightening.



Figure 5

Cervical Fixation

Use hooks and screws to fix the vertebrae. Choose the screw anchoring technique: pedicle or lateral mass. Determine the entry point and trajectory for the screw and use the awl to create a pilot hole (*Figure 6a*). Path preparation may also be continued using the Straight Pedicle Finder (*Figure 6b*). Use the pedicle probe to confirm accurate placement of the path. The cervical Tap is then used to prepare screw path up to desired depth (*Figure 6c*). The cervical tap is easily identified with its longer thread and its integrated stop.

Assemble the screwdriver by inserting the polyaxial screwdriver through the cylinder into the straight handle. A SOCORE Polyaxial Cervical Screw with appropriate length is assembled to the screwdriver and maintained by screwing the cylinder. Insert the screw into the previously prepared path (*Figure 7*). Follow the same procedure to insert the remaining screws. It is recommended to align the screws as far as possible during the implantation to allow an easy introduction of the rod and an effective tightening of the locking screws.



After cleaning the bone with an elevator, grab the hook with its holder and place it onto the lamina (*Figure 8*).

Contour the rod template to fit the screws, hooks and occipital connector. This aims to determine the bending and length of the rod.

Cut the rod to adapted length using the rod cutter. Use the rod bender to contour the rod and match the rod template curve (*Figure 9a*).

Insert the rod into the occipital connector then into heads of screws and/or hooks using the rod holder (*Figure 9b*). The In Situ rod benders may be used to adjust the curve of the rod and to ease its insertion in the heads of implants.



a b Figure 8

Figure 9

If the rod is not completely inside the head of the screw preventing locking screw setting, the pistol persuader shall be placed over the rod and onto screw or hook head and squeezed to push the rod into the head. Once the rod well introduced, insert locking screw without complete tightening (*Figure 10*). Locking screw may be turned one-half turn counterclockwise to seat the thread before tightening. The same procedure is followed to insert the second rod.



Figure 10

Use the compressor and distractor to achieve compression (*Figure 11a*) or distraction (*Figure 11b*) and then tighten the locking screws to maintain the correction. After final adjustment of the construct, fully tighten all the spinal locking screws with the dynamometric screwdriver (*Figure 12a*) and the four occipital locking screws with the same tool (*Figure 12b*). Spinal tightening should be assisted with the counter torque tool.



Figure 11



b



Figure 12

Crosslink

The crosslink reinforces the assembly and helps it to support the physiological forces. It is recommended to use it whenever possible to transform the assembly into frame and increase its resistance.

Select a crosslink of appropriate length and hold it with the rod holder. Introduce the short hook through the free extremity of the crosslink and hold it with the dynamometric screwdriver. Place the crosslink onto the first rod from the fixed hook with the rod holder and screwdriver (*Figure 13*) and rotate it until the contact of the transverse bar with the second rod. Slide the short hook laterally until fitting the second rod (*Figure 14*). Tighten the two locking screws of the crosslink with the dynamometric screwdriver, beginning with the short hook.

In case of long construct, a second crosslink may be added.

Remove the rod holder and the screwdriver. Final construct is shown in *Figure 15*.





The surgical technique shown is for illustrative purpose only. The actual techniques employed will always depend on surgeons' medical judgment and can differ from one patient to another.



335, Rue Saint-Fuscien 80090 Amiens – France 0033 (0)3 22 50 07 31 contact@novaspine.fr