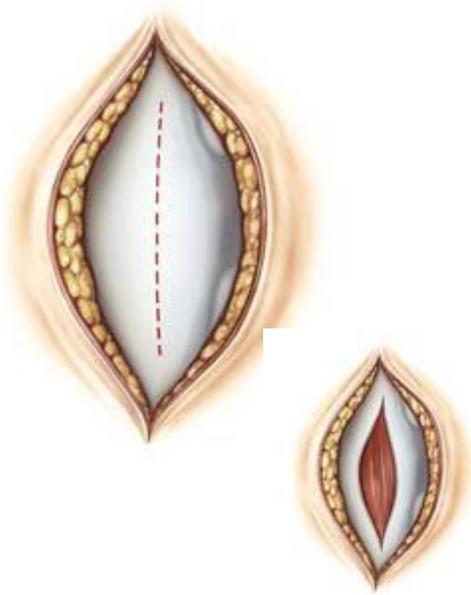


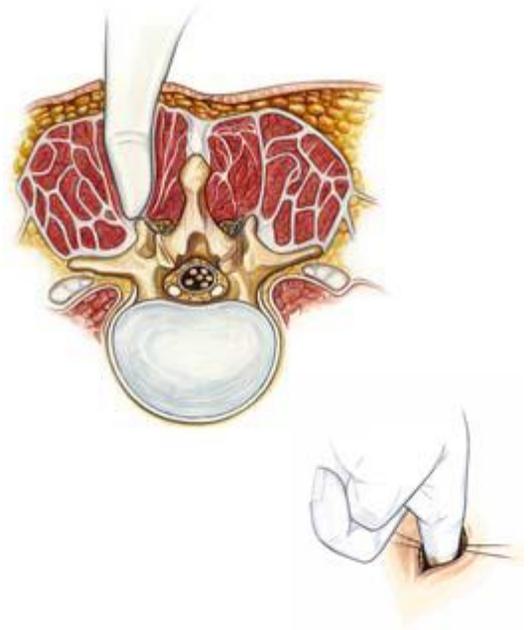
Positioning of the patient and incision marking

- A minimally invasive approach requires the patient to be placed on a radiolucent table which allows for AP views of the various anatomic structures.
- The appropriate position of the longitudinal incision(4-5 cm in length) is determined by using a C-arm. The intended skin incision is marked paraspinally on the right respectively on the left side.



Fascial incision

■ A slightly arcuate fascial incision 1.5 cm from the midline is performed. This allows a firm hold of the speculum and counter retractor, facilitating the exposure of the individual Segment.



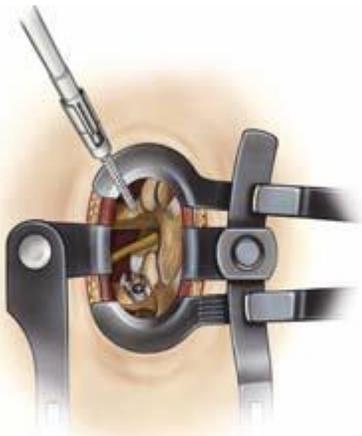
Exposure and blunt dissection of the paraspinal muscles

■ After splitting of the thoracolumbar fascia a blunt dissection of the paraspinal muscles is performed with the fingertip. In accordance with the palpatory finding, a correction of the skin incision is still possible, as the muscle retractor should be introduced as vertically as possible and in the direction of the interlaminar space. The length of the retractor is selected by using the index finger.



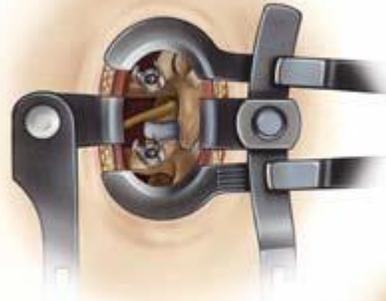
Introduction of the Spine Classics retractor system

■ The muscle retractor is introduced with closed blades and with the handle in the longitudinal direction of the body. It is then turned 90° with the handle towards the assistant and afterwards expanded.



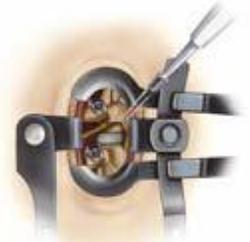
Insertion of uCentum screws

■ Using the standard technique the uCentum Spinal System pedicle screws are inserted



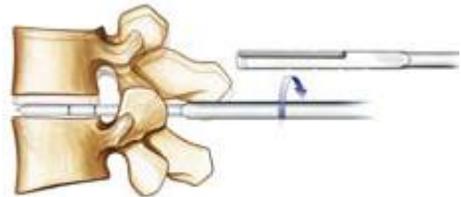
Removal of facet joint

■ A complete unilateral facetectomy should be considered on the side targeted for the implant insertion. The inferior articular process of the facet joint is resected first, then the subjacent superior articular process is resected.



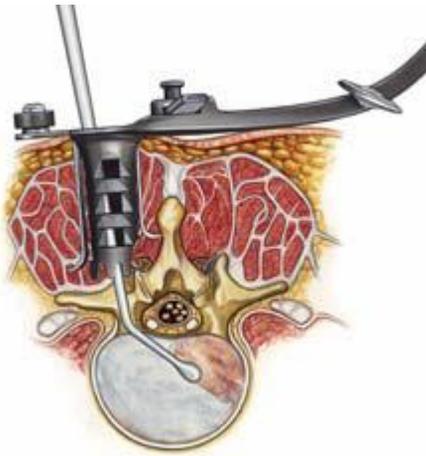
Opening of the disc and removal of disc material

- To open the disc a small window is cut into the annulus.
- Ulrich Rongeurs are used to remove the opened annulus.
- Posterior osteophytes are removed by using Ulrich Kerrisons.



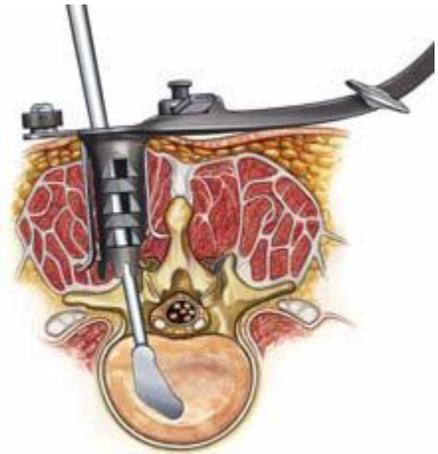
Restoration of disc height

- The desired restoration of the natural disc height can be set using the pezo reamers/distractors. They are available in heights from 7-17 mm in 2 mm increments.
- The distractor must be inserted horizontally and then rotated. Rotating clockwise the distractors are blunt. A special designed sharp rim allows removal of disc material. If so, the distractor has to be rotated counterclockwise.



Cleaning of the intervertebral space

- The disc space is cleared using ulrich rongeurs, bone curettes and rectangular curettes.
- The ulrich bone rasps are used to refresh the cartilaginous endplates. Alternatively the rectangular curettes can be used.



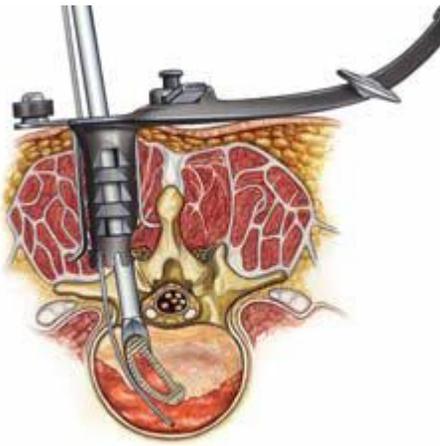
Determination of implant size using trial implants

- The trial implants are available in heights from 7-17 mm in 2 mm increments.
- Using the slap hammer the desired trial implant is inserted.



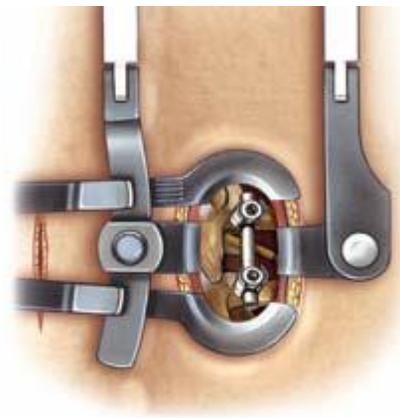
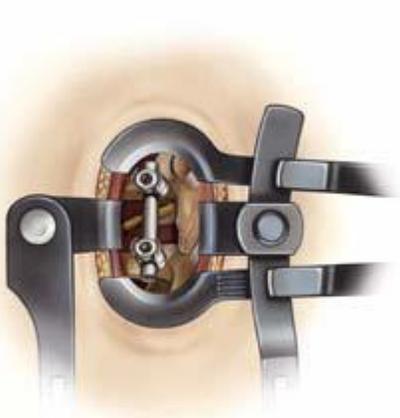
Implant insertion

- The pezo T PEEK/Titanium implant should be filled with bone or uDesis bone substitutes
- It is recommended to place bone graft in the anterior part.
- The insertion guide allows a safe implantation of the pezo T implant.
- Partially the pezo T implant is inserted into the disc space using the implant inserter.
- The pezo T PEEK inserter has a clamp mechanism while the tezo T Titanium inserter has a screw joint.



Final implant positioning

- Using the impactor the implant is rotated 90° to achieve the final positioning.
- X-ray control.
- It is recommended to put bone material harvested from the facet joint around the pezo/tezo T implant



Application of rod and set screw

- Final assembly of the uCentum Spinal System.
- Compression is applied to the pedicle screws to support the contact area between the pezo/tezo T implant and the endplates.
- Final tightening of the uCentum pedicle screws and removal of the tabs.