Olys

TLIF
PEEK CAGE

Your expertise
Our support
Enhanced fusion

- Large graft windows to allow an optimum graft area and to improve graft vascularization
- Unique design to enhance anterior and posterior graft impaction

Pure PEEK Optima®

- Modulus of PEEK Optima® is close to the cortical bone’s and provides micro-movements to enhance bone growth
- Radiolucent material to ensure accurate fusion follow-up

Anatomical shape

- Smooth design to preserve nervous structure during insertion
- Anatomical biconvex shape for a natural adaptation to the concavity of endplates
Latest innovation in Scient’x range of PEEK cages, **Olys Transforaminal cage** is dedicated to the lumbar spine. Indications include:

- advanced discopathies
- extensive decompressions
- spondylolisthesis
- failed disc surgery
- recurrent disc herniation
- post-operative instability
- lumbar pseudarthrosis

Olys TLIF cage offers an optimized instrumentation and an innovative design restoring the natural lordosis and stabilizing the operated level.

**Respect of the balance**

- Complete range of cages to restore the intervertebral space and the lordosis

**Safe approach**

- Unilateral transforaminal approach to minimize dural exposure

**Time saving**

- Single cage insertion to reduce operative time
1 Approach and posterior fixation

The following procedure illustrates the insertion of a cage for a Transforaminal Lumbar Interbody Fusion (TLIF) in the L4-L5 intervertebral area.

The patient is in genu pectoral or in prone position. Standard posterior incision and approach are performed. A posterior fixation associated to a postero-lateral fusion is mandatory to ensure medium and long term stability to the segment. Therefore pedicular screws must be inserted before the Olys cage. Afterwards, distraction on these screws will promote exposure of the interbody space and will facilitate the insertion of instruments.

2 Arthrectomie

The lower facet of the cranial vertebra (L4) and the upper facet of the caudal vertebra (L5) are removed on one side with the osteotome. This maneuver can be completed by a nerve root decompression by removing the internal part of the upper facet on the caudal vertebra.
Discectomy

The hemostasis of epidural veins is performed before any disc approach. The protruding nerve root is protected with the **nerve root retractor**. The spinal cord is slightly retracted with the second retractor. Incision of the L4-L5 disc is then performed.

**Shavers** are used to start the progressive restoration of disc height and facilitate disc removal. Available in 7 sizes (ranging from 6 to 12mm), they are chosen and inserted in accordance with intervertebral height and until resistance to instrument rotation occurs.
4 Completion of discectomy

Discectomy is completed using **straight, curved and angled disc rongeurs**. With those three types of disc rongeurs, optimal discectomy is obtained even in the contra-lateral disc space.

5 Distraction

Once discectomy has been achieved, the **lateral distractor** is inserted on the pedicle screws. Increased exposure of the intervertebral space is promoted by activating the toothed bar with the **wrench**.
Completion of the approach

The osteotome tube is impacted in the intervertebral space to calibrate the window. Four sizes of osteotome tube are available and chosen according to the intervertebral space and the cage size. The rounded extremities must be inserted before any impaction. The tube is gently impacted with a mallet to remove posterior osteophytes and adjust the edges of the window. The window thus obtained will ensure good visibility into the disc space and completion of the discectomy.

Endplates scraping

The remaining layers of annulus and cartilaginous endplates are removed with the scrapers. Curved scrapers allow to reach all parts of the vertebral endplates in the contra-lateral disc area.
8 Trial instruments insertion

Inserting trial cage instruments allow to check that the discectomy is sufficient for cage insertion while confirming the cage size. To each cage size corresponds a trial cage instrument. At this step, graft can be inserted and impacted in the anterior part of the intervertebral disc space.

9 Cage preparation

The cage is mounted and locked on the cage holder. The extremity of the cage holder is inserted in the cage groove. A 90° rotation of the cage holder with regards to the cage is performed and the ring on the instrument is locked. In order to respect the introduction direction of the cage, the horizontal marker located in the center of the cage must be in the superior part of the cage. Then the cage is inserted in the cage socket and filled in with graft (autologous bone, bone substitutes). The graft is impacted in the cage using the graft pusher and a mallet.
Cage insertion

The cage is first inserted straight into the intervertebral space (A).

The cage holder is then inclined laterally a few degrees (B) to start the cage inclination. The cage holder is unlocked by rotating the ring in order to recover its initial position (C). This maneuver straightens the cage holder without modifying the position of the cage in the intervertebral space. The cage holder is locked once again. The cage insertion in the intervertebral space goes on (D).

**Warning:** When unlocking the cage holder, and until the cage holder is locked again, any rotation of the cage holder must be avoided. Otherwise, the cage will dissociate from the instrument. The flat parts on the instrument handle allow to control the relative position of the cage holder in relation to the cage.
Once the cage has reached an adequate position, the cage holder is unlocked by rotating the ring. After a 90° rotation of the instrument, the cage holder is released from the cage with a light traction and is removed from the disc space.

Final cage positioning

An X-ray must be performed to verify the proper position of the cage. The straight and curved pushers allow to adjust the position of the cage. The straight pusher is positioned at the cage extremity and the curved pusher at the center of the cage. Gentle impactions are performed to adjust the position of the cage. Graft can be inserted at the posterior part of the cage.

Completion of the posterior fixation

After final positioning of the Olys cage, the optimal stability of the segment will be ensured by adding a posterior fixation and a postero-lateral graft. The cage must be positioned in compression to maintain lordosis and to avoid any future movement of the cage in the intervertebral space.
Notiz des Notice d'instructions

L'instrumentation du service est destinée au traitement chirurgical de pathologies digestives. Elle permet de favoriser les contaminations chirurgicales comme ces risques de contamination chirurgicale. Elle permet de favoriser les contaminations chirurgicales comme ces risques de contamination chirurgicale.

DESCRIPTION

L'instrumentation du service est conçue pour être utilisée dans les services chirurgicaux. Elle est destinée à permettre le traitement chirurgical de pathologies digestives. Elle permet de favoriser les contaminations chirurgicales comme ces risques de contamination chirurgicale.

INDICATIONS

Les critères et critères spécifiques pour le traitement chirurgical de pathologies digestives incluent les aspects suivants.

CONTRaintes

Les critères et critères spécifiques pour le traitement chirurgical de pathologies digestives incluent les aspects suivants.

EFFETS DÉSIREABLES, COMPLICATIONS POSSIBLES

Les critères et critères spécifiques pour le traitement chirurgical de pathologies digestives incluent les aspects suivants.

PRECAUTIONS D'EMPLOI

Les critères et critères spécifiques pour le traitement chirurgical de pathologies digestives incluent les aspects suivants.

Prise en charge des complications associées à ce type de chirurgie. Cette chirurgie est associée à un risque de complications malignes et de complications chirurgicales. Les complications associées à ce type de chirurgie peuvent se manifester sous forme de douleurs, de troubles digestifs, d'insuffisance respiratoire ou d'autres symptômes.

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Cage Lg 28mm
- Height 7mm: 12OLS07-28
- Height 9mm: 12OLS09-28
- Height 11mm: 12OLS11-28
- Height 13mm: 12OLS13-28

Osteotome
- 220ST02

Nerve root retractor Lg 6mm
- 22ECT05-06

Nerve root retractor Lg 8mm
- 22ECT05-08

Shavers
- Size 6mm: 22FRA01-06
- Size 7mm: 22FRA01-07
- Size 8mm: 22FRA01-08
- Size 9mm: 22FRA01-09
- Size 10mm: 22FRA01-10
- Size 11mm: 22FRA01-11
- Size 12mm: 22FRA01-12

Straight disc rongeur
- 22PIN13

Curved disc rongeur
- 22PIN14

Angled disc rongeur
- 22PIN15
Lateral distractor 22DST17
Universal ends 22EM802

Wrench for 22DST17 22CLE19

Osteotome tube
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Straight scraper 22CUR05

Left curved scraper 22CUR06G

Right curved scraper 22CUR06D
### Trial cage instruments Lg 28mm

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<td>13mm</td>
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### Cage holder

- Code: 22PRE14

### Cage socket

- Code: 22SOC05

### Graft pusher

- Code: 22COM09

### Curved pusher

- Code: 22MP14

### Straight pusher

- Code: 22MP13
Please read carefully the instruction for use bulletin. Devices may be subject to modification. Patented

868719120LS-A / version 1.1 March 2008