

Aesculap Spine activ C

Cervical Disc Prosthesis



Retain Mobility

activ C

Back to life enjoyed to the full



- + Natural mobility
- + Safety during surgery and in everyday life
- + Stability in every situation
- + The deliberate step into an eventful future



activ C

cervical disc

T I O N



activ C

Natural mobility



+ Retaining mobility of your patients

I T Y



Physiological center of rotation



Posterior center of rotation

Close to biological center of rotation, according to literature

Penning L.: Normal movements of the cervical spine. *Am J Roentgenol.* 1978;130:317-26.
 Dvorak J. et al.: In vivo flexion/extension of the normal cervical spine *J of Orthopaedic Research*, 1991; 9(6), 828-834

Reconstruction of lordosis

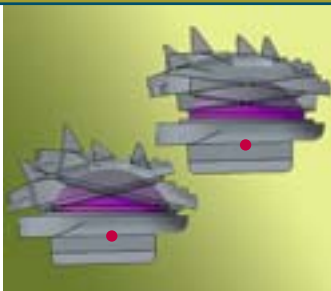


3° Lordosis (1.5° per end plate)

3° is close to anatomical lordosis in cervical spine according to literature

Harrison D.E. et al.: A new 3-point bending traction method for restoring cervical lordosis and cervical manipulation: a non-randomized clinical trial. *Arch Phys Med Rehabil.* 2002;83:447-53.
 Bullock-Saxton J.: Postural alignment in standing: a repeatable study. *Aus Physiother.* 1993;39:25-29.

Center of rotation is independent of prosthesis height




Implant height defined by the shoulder at the superior plate
 Center of rotation always in the same location and below the inferior plate of the prosthesis

Center of rotation is independent of prosthesis height and therefore close to biological COR in all heights



Safety during surgery and in everyday life



 Safe multilevel treatment through intelligent implant design

T Y



Safe multilevel treatment



- Combination of spikes and keel

- Treatment of 2 or 3 levels is safe and possible. No risk of vertebral body split caused by double keel prosthesis

Safe midline positioning



- Keel on the inferior side

- Solid anchorage in the inferior vertebral body and safe positioning in the midline

Safe preparation of the keel bed



- Intelligent instrumentation and reamer guidance
- No chiseling

- Easy and gentle preparation of the keel bed; Risk of spinal cord and blood vessel injuries minimized

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Stability in every situation



High stability and safe placement



L I T Y



Anatomic design



Large contact area through convex shape of the superior prosthesis plate

Guided by the anatomy of the vertebral body, ensuring safe placement and fitting ► primary stability

Solid anchorage cranial + caudal



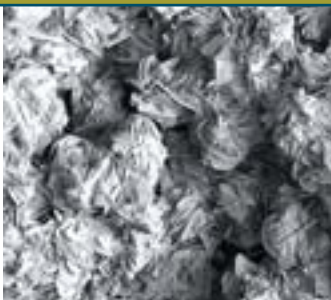
Spikes on the superior plate

Improved anchorage in the dome - superior to keel anchorage ► primary stability

Keel on the inferior plate

Stable anchorage in the inferior vertebral body and solid support against rotation and lateral dislocation ► primary stability

Rapid and safe osteointegration

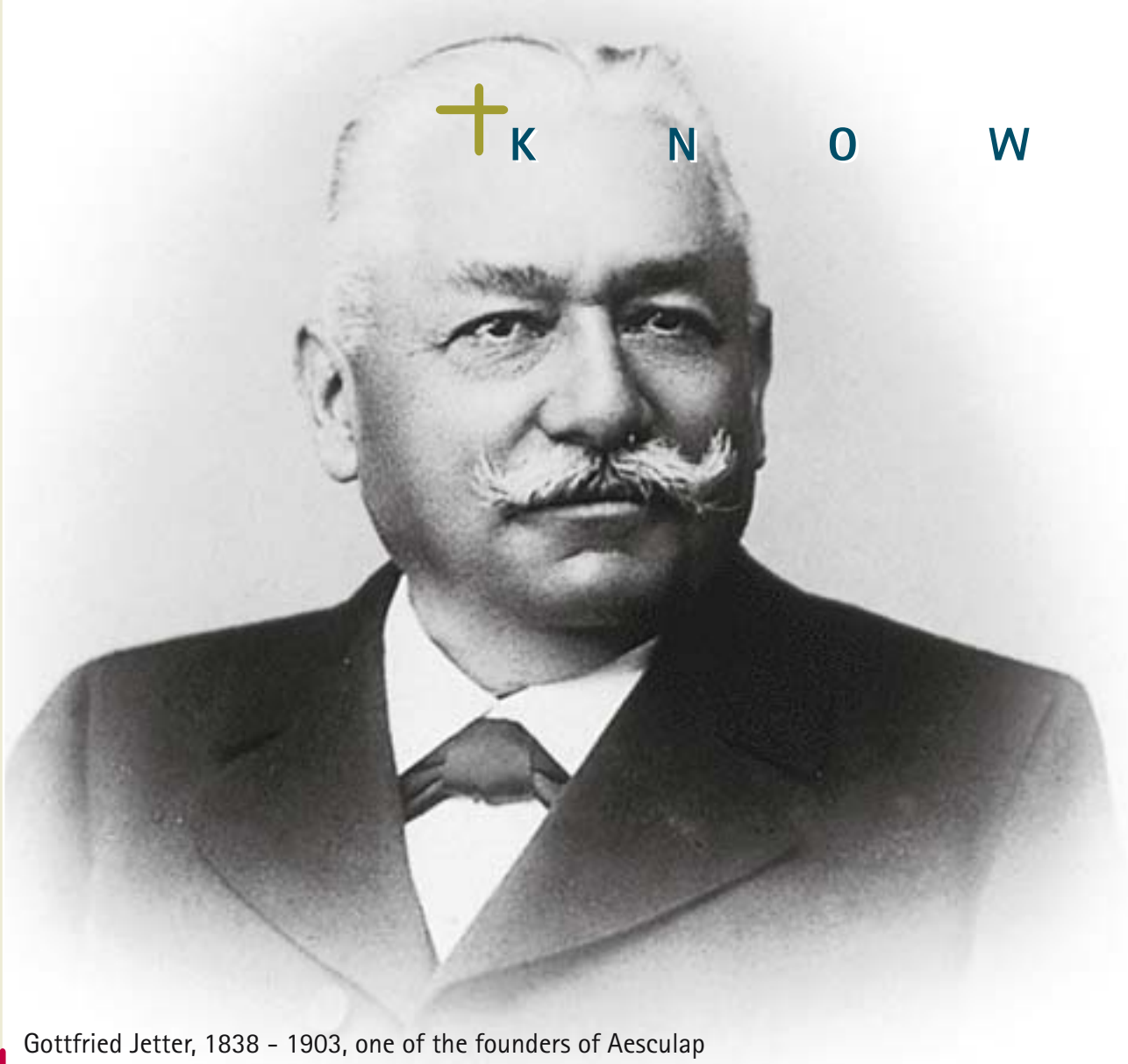


Plasmapore® coating

Fast ingrowth of bone cells ► secondary stability

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The deliberate step into an eventful future



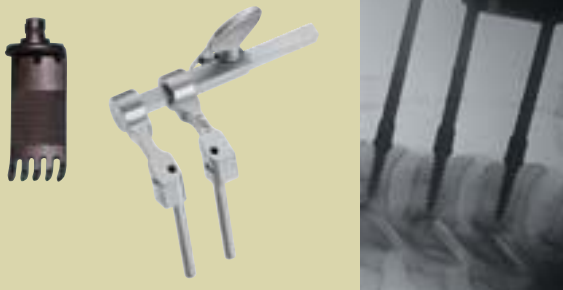
+ Gottfried Jetter, 1838 - 1903, one of the founders of Aesculap

+ 140 years of experience in the development of intelligent instrument systems

H O W



Radiolucent CASPAR retractor / offset distractor screws



- Radiolucent TECAMAX®-blades and arms of the CASPAR retractor, for unobstructed x-ray control
- Pivoting distraction screws, ensuring easy and spacious access even through small approach

Easy midline preparation



- Intelligent system for determining and marking the midline, positioning the trial implant and implanting the prosthesis

Simple and safe preparation of the keel bed



- Special system for reaming the keel bed, combined with trial implant and midline determination



AESCULAP®

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