Excellence in Spine Surgery
Our Foundation
Aesculap Implant Systems’ Spine division is focused on delivering tomorrow’s solutions to treat complex disorders of the spine. As part of the B. Braun group of companies, with annual sales over $5 billion, it is backed by the resources and experience of one of the world’s leading healthcare suppliers. With its rare combination of big-company support and small-company agility, Aesculap Spine is a unique business partner.

Center of Excellence
The company has made significant investments to strengthen its presence in the US market and has awarded its US-based Marketing and Research & Development operations with a Center of Excellence designation, positioning the group as a worldwide driver for spinal product design. The US R&D facility includes a fully outfitted custom shop and has both the equipment and experienced personnel to tailor products to meet the most demanding needs of our customers.

Tradition of Spinal Innovation
Aesculap Implant Systems is future-focused. Since the launch of the CASPAR cervical plating system, cervical distractor and retractor systems nearly 30 years ago, the company has been building on a rich tradition of innovation in spinal instrumentation. Aesculap Spine’s Research & Development efforts are concentrated on improving clinical outcomes, and its product development process is driven by a continued focus on current standards of care and evidence based results. It is this commitment to science and clinical research that, over time, has positioned Aesculap as one of the most trusted names in surgery. With a robust pipeline of new technologies and an unwavering commitment to excellence, the company is well positioned to provide breakthrough solutions to complex spinal disorders.

Focus on Clinical Education
Surgical procedures performed on the spine are some of the most challenging surgeries undertaken. The increasing level of technology and the complexity of spinal treatment systems require a regular exchange of knowledge between surgeons and the health care industry. The Aesculap Academy provides a leading forum for advanced clinical education. Each year Aesculap Spine, in cooperation with the Aesculap Academy, hosts a number of national and regional events that focus on understanding the pathologies and treatment modalities of complex spinal disorders. Events range from simple lectures through intensive, multiple day cadaveric training courses and are open to all practicing spine surgeons.
Aesculap Implant Systems Spine Division offers a broad portfolio of products that is shaped by a single philosophy: offer high-quality products that help surgeons improve the quality of a patient’s life. From the CASPAR and ABC cervical plating systems and their ability to translate under the body’s natural loading to S4®, one of the lowest profile lumbar pedicle screw systems on the market, Aesculap continues to expand its product line with devices and biologics that are beneficial for the surgeon and patient alike. From the occiput to the sacrum and everywhere in between, Aesculap Spine offers the products necessary to achieve successful outcomes.
Excellence in Spine Surgery
Our Product Solutions

Cervical Solutions
Aesculap is well-known as one of the pioneers for the treatment of cervical spine disease. This reputation continues today, as new and innovative products are being developed, tested and introduced in conjunction with spinal specialists and institutions from all over the world. The range of products offered for the cervical spine cover:

- Anterior Cervical Fusion Systems
- Posterior Cervical Stabilization Systems
- Cervical Interbody Solutions
- Cervical Retractor Systems

Thoracolumbar Solutions
Aesculap provides comprehensive solutions for the most demanding cases in the thoracolumbar spine. From degeneration and disc disease to tumor and trauma care, Aesculap offers a range of products to take the spine surgeon from open to minimally invasive to endoscopic surgery.

- Degenerative Solutions
- Minimally Invasive Surgery
- Tumor/Trauma Solutions
- Lumbar Interbody Solutions
- Lumbar Distractor and Retractor Systems

Motion Preservation Solutions
Motion preservation provides new treatment options in standard indications. In early stages of degeneration and younger or still active patients, motion preservation provides surgical alternatives and a new surgical philosophy to surgeons and patients.

2007
Released the S4® Cervical Posterior Fixation System to treat posterior spinal disorders

2009
Completed activL® Lumbar Artificial Disc IDE clinical study enrollment

2010
Entered the minimally invasive spine surgery market with the introduction of the Spyder™ MIS Retractor System and S4® MIS Pedicle Screw System

2011
Introduced Hydrolift™, the first VBR to use hydrostatic distraction

2012
Released Arcadius™ L Stand Alone Anterior Lumbar Interbody Fusion Device with Plasmapore™ coating
With the launch of the Caspar Cervical Plating System in 1982, Aesculap set a milestone in the treatment of the diseases of the cervical spine. Many other innovative products followed such as the ABC Plate, S°C Cervical and the SecureSpan™ Laminoplasty Fixation System. Today Aesculap offers a competitive range of innovative implant systems with excellent biomechanical and clinical results.

Aesculap's cervical product solutions address complex spinal issues of the anterior and posterior spine from the occiput through C7. These solutions are complemented by the gold-standard in cervical instrumentation as well as a complete set of interbody products.

### Posterior Stabilization

**S° Cervical Posterior Fixation System**

Low-profile screw heads and 90° of angulation maximizes placement flexibility; overall biomechanical strength and easy access instruments help to achieve a fast and efficient surgical procedure with optimal patient outcome.

**SecureSpan Laminoplasty System**

A safe, quick and effective fixation for Laminoplasty procedures, it offers a solid connection between screw and screwdriver, color-coded implants and a variety of implant sizes.

**Occipital Fixation**

Single-piece construction maximizes strength.
Anterior Fusion

Quintex® Cervical Plating System
Four construct options and an intuitive instrument set accommodates patient-specific anatomical and clinical considerations.

PL-AGE® Anterior Cervical Fusion System
The PL-AGE® Anterior Cervical Fusion System is an integrated PLate/cAGE design offering a new approach for ACDF procedures.

ABC2 Cervical Plating System
Proven, dynamic translational technology maximizes graft loading and comprehensive size range, 20 mm – 115 mm, optimizes fit.

Spectrum™ Cervical Plating System
Unique, semi-rigid capability prevents unnecessary permanent graft loading while ensuring that the correct lordosis of the cervical spine is maintained.

Cervical Instrumentation

CASPAR Cervical Retractor (CCR) System
Comprehensive sizing, material choices and unique design benefits improve ease of use and accommodate various approaches and techniques.

CASPAR Cervical Distractor (CCD) System
Single-piece pin construction maximizes strength and cost saving single, sterile packaging eliminates unused pins.

Apfelbaum Instrumentation
Provides specialized access for hard-to-reach anatomy and is used to support both anterior and posterior approaches.

Interbody

CeSpace Implants

With a worldwide elderly population and easier access to health care, the incidence of spinal pathologies such as degenerative disc disease or deformity is rising. Consequently more patients are undergoing spinal implant surgery to relieve their pain.

Aesculap anticipates new trends and invests in the ongoing development of spinal solutions for the treatment and stabilization of the thoracolumbar spine. Aesculap's innovative product portfolio provides treatment options for spinal disease, degeneration and trauma from T1 through the sacrum. Through cutting-edge products Aesculap offers solutions for the most demanding thoracolumbar surgical cases in the form of implant systems, instrumentation and interbody devices.
Degenerative Solutions

It is estimated that at least 30% of people aged 30-50 years old will have some degree of disc space degeneration in their lifetime due to breakdown or aging in the intervertebral discs over time. Aesculap’s S4® pedicle screw system is the answer to treating degenerative disc disorder and is recognized as one of the most comprehensive tableless and tabbed pedicle screw solutions on the market today.

The S4 Systems’ innovative pressure vessel technology transfers energy throughout the polyaxial screw construct transforming it into a solid monoaxial construct, achieving maximum construct stability while maintaining an ultra-low screw head profile.


S4® Spinal System
Top loading, easy to use, ultra low profile tableless screw system that has the capability of expedited screw placement without altering bone screw thread properties.

S4 Spinal System
Engineered to maximize stability of construct and provide easy implantation. The extended tabs, small diameter (10.5 mm) and the 42º polyaxicity maximize the range of the screw body to ease rod capture without the use of additional instruments.

S4 Spondylolisthesis Reduction Instrumentation (SRI)
Reduces spondylolisthesis in a controlled manner following the initial slip path of the upper spinal vertebra. Allows for reduction with a single level fusion, sparing adjacent healthy vertebra.


Tumor and Trauma Solutions

This complex and demanding area of spinal surgery requires not only high performance implants, but also state-of-the-art instrumentation to enable surgeons to carry out each procedure with precision and control.

Aesculap’s spine trauma solutions’ core competency embraces both endoscopic and minimally invasive surgical approaches. The trauma portfolio provides you with a total systems approach. Our instrumentation was designed to address both anterior and posterior treatment options for the thoracolumbar spine, including fracture reduction, anterior column reconstruction and stabilization.

S4® Fracture Reduction Instrumentation (FRI)
Distraction, reduction and curvature correction in all planes is accomplished with precision and control. For use with minimally invasive and open approaches.

Hydrolift® Vertebral Body Replacement (VBR) System
Hydrostatically controlled expandable cage with a digital pressure display, allows for a minimal cross sectional area. The bone preserving philosophy combined with the unique self-adjusting footplate optimizes conditions for a positive bone modeling response.

MACS TL® Anterior Plating System with MACS II Instrumentation
Low profile anterior plating system is the only true endoscopic system offered with MACS II instrumentation for ease of use. Four point fixation system allows for variations in bone density, vertebral size and additional posterior fixation.
Thoracolumbar Solutions

Using the S4® pedicle screws, Spyder® Retractor and TSpace® (TLIF) PEEK Interbody device together as a comprehensive system, creates the ideal atmosphere for minimally invasive procedures.

Minimally Invasive Surgery Solutions

Our MIS product portfolio provides a complete system for your surgical needs. Each product was specifically designed to complement the features of one another to create an interchangeable MIS system that maximizes surgical visibility, minimizes radiation exposure and eases use for surgical precision and minimal disruption of muscle tissue.

Aesculap offers a coordinated system of products that work harmoniously together to realize the benefits of Minimally Invasive Spine Surgery.

S4 MIS Cannulated Pedicle Screw System
Cannulated bone screws simplify locating pedicles under fluoroscopy and extended break-off tabs facilitate percutaneous rod capture.

Spyder MIS Retractor System
Facilitates a paraspinal, muscle splitting approach and offers full adjustability in both the cranial/caudal and medial/lateral directions, in addition to top-loading blades that can be removed intra-operatively without the need of removing the retractor frame during use.
Arcadius™ XP L Stand Alone Anterior Lumbar Interbody Fusion Device (ALIF) provides anterior fixation and stability through a four screw divergent design. The unique implant design and flexible instrumentation provide accessibility for screw insertion at various angles.

Lumbar Interbody Solutions

Aesculap offers a comprehensive range of interbody devices to accommodate ALIF, TLIF and PLIF procedures. Devices are available as standard or stand alone and available in PEEK or allograft materials. The new Arcadius™ XP L Stand Alone Anterior Lumbar Interbody Fusion Device features the innovative Plasmapore® XP osteoconductive coating for maximized stability.

Lumbar Distactor and Retractor Systems

Specialized instrumentation is available to complement specific surgical needs and approaches.

Arcadius™ XP L Stand Alone Anterior Lumbar Interbody Fusion Device (ALIF) provides anterior fixation and stability through a four screw divergent design. The unique implant design and flexible instrumentation provide accessibility for screw insertion at various angles.

Anterior Lumbar Interbody Fusion (ALIF) Implants

Available in PEEK or allograft materials; the comprehensive size range approximates individual patient anatomy to restore lordosis.

Transforaminal Lumbar Interbody Fusion (TLIF) Implants

TSpace® PEEK, made of radiolucent PEEK-OPTIMA®, has high-quality, easy-to-use instrumentation designed for both open and mini-open approaches. Allograft option also available.

ProSpace™ Posterior Lumbar Interbody Fusion (PLIF) Implants

Available in PEEK or allograft materials; designed to restore natural intravertebral height and sagittal alignment and meet the needs of individual patient anatomy.

Aesculap has staked its claim in surgical technology for over 150 years. During this long history of learning and experience, we have developed a deep understanding of differential diagnosis, indications and treatment options that provide an effective and sustainable treatment during the complete course of each patient’s disease.

The activL® lumbar arthroplasty device is currently engaged in an FDA clinical trial. Enrollment in the trial was completed in late 2009. The activC™ cervical arthroplasty device is currently marketed internationally and is not available in the US. Both discs are currently enjoying clinical and commercial success in Europe.

activL® Lumbar Arthroplasty Device
Translational movement of the devices’ inlay material promote load-sharing with the facet joint.
Investigational use only; not available for sale in US

activC™ Cervical Arthroplasty Device
Combination of superior spikes and inferior keel provide secure fixation and posterior center of rotation is independent of device height.
Not available for sale in US
Aesculap carries a comprehensive selection of biologic solutions to meet today’s surgical needs. From allograft interbody implants that restore height and lordosis to specially formulated bone void fillers, these products are designed to facilitate robust and lasting fusions.

CeSpace Bone®
- Allograft spacer for anterior cervical interbody fusion
- Cortical and cortical cancellous options
- Wide range of heights, footprint sizes and lordotic angles to maximize implant surface area contact

ProSpace™ DBM-D
Available in paste or putty, ready to use with convenient room temperature storage. Putty contains cancellous chips.

Cancellous Chip and Cubes
- Cancellous Chips (1-4 mm) in convenient 15 cc sizing
- Cancellous Cubes (4-6 mm) in convenient 15 cc sizing
- 40% Cortical/60% Cancellous Chip Mix (1-3 mm) in convenient 15 cc sizing

Focus on Clinical Education

The Aesculap Academy enjoys a world-wide reputation as a leading forum for advanced clinical education and answers the demands of spine surgeons and medical staff in the OR. Each year, Aesculap Spine, in cooperation with the Aesculap Academy, hosts a number of national and regional events that focus on understanding the pathologies and treatment modalities of complex spinal disorders. Events include simple lectures, hands-on workshops, seminars and intensive, multiple day cadaveric training courses which are open to all practicing spine surgeons.

The Aesculap Academy aims to provide highly specialized training to fit individual practice and hospital needs. Customized programs can be built to meet your curriculum and location needs. For the most up-to-date course offerings and details on how to attend an Aesculap Academy program, visit www.AesculapImplantSystems.com/Academy.