



DEGENERATIVE  
SPINAL DISORDERS

**AESCULAP® Ennovate®**  
HEALTH ECONOMICS  
SOLUTIONS BEYOND FUSION

# AESCULAP® Ennovate®

HEALTH ECONOMICS





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OVERVIEW

PROCESS  
OPTIMIZATION

ECONOMIC ASPECTS

IT SOLUTIONS

ADDITIONAL  
SERVICES

Ennovate®  
BROCHURES

## SOLUTIONS BEYOND FUSION

AESCULAP® Health Economics –  
We know that you deserve much  
more than mere product solutions

### VALUE PROPOSITION

We offer solutions for your individual and specific needs reaching beyond the product.

With the AESCULAP® Service Concepts we are offering solutions to drive the success of your organization.

Our holistic approach towards our client organizations allows you to profit from the broad range of services, such as customized supply solutions, technical support and various in-house consulting offers.

All our AESCULAP® services are backed by and based on the 150 years of experience in the medical devices industry and aim to drive down your costs and bring up your organizations level of efficiency.

Always aiming to meet highest quality standards and customer satisfaction is what solution beyond fusion stands for in the Ennovate® "health economics".



## LET OUR SOLUTIONS BE YOUR ORGANIZATIONS NEW BACKBONE

 **Ennovate®**  
SOLUTIONS BEYOND FUSION

### ECONOMIC ASPECTS

- Sterile packed implants
- Reduced reprocessing costs and increased efficiency (1, 4)
- Stock reduction and optimization (1, 4)

## ECONOMIC EFFICIENCY

### PROCESS OPTIMIZATION

- One screw – One system
- Lean management
- Sterile packed implant solutions
- Modular system structure
- Implement new customized supply concepts

### IT SOLUTIONS

- Asset Management
- Barcode App
- Reduction of error sources
- Improving organizational workflow
- Instrument Management System

### ADDITIONAL SERVICES

- European Loan Service
- In-house client consulting
- Advisory services

### ONE SCREW ONE SYSTEM

As complexity is ever-increasing  
in the health care industry  
we bring back simplicity

#### THE BEAUTY OF SIMPLICITY

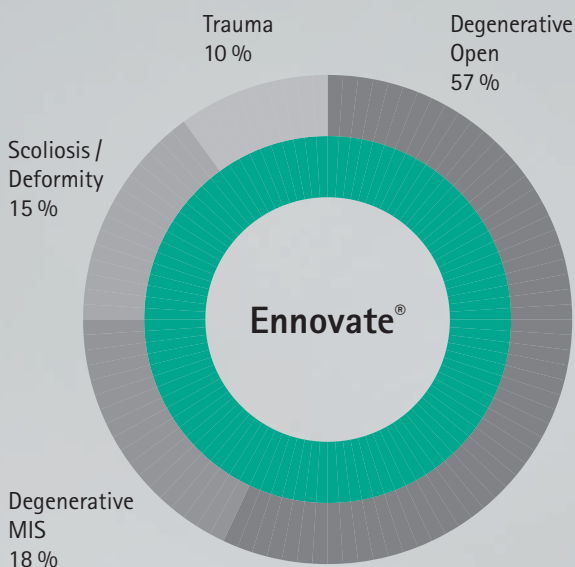
Reducing complexity in the everyday processes is a major step to improve your organizations efficiency.

In providing a one-screw-system for all indications the Ennovate® System allows to streamline activities along the whole process cycle, reducing costs and resource requirements.

One Screw – One System is the Ennovate® answer to this demand and is also backed by a recent health economics study conducted in 95 European spine centers. It was shown that 92 % of surgeons see a high risk reduction potential and decrease of non-economic processes through the use of only one system (1).

#### BENEFITS (1, 4):

- Reduction of storage and logistics
- Reduction of training for staff
- Reduced learning curve
- Reduction of handling costs
- Reduction of potential errors such as mix-up of different systems
- Potential reduction of OR time
- Supplier as true system partner
- One pool of implants





## SOLUTIONS BEYOND FUSION

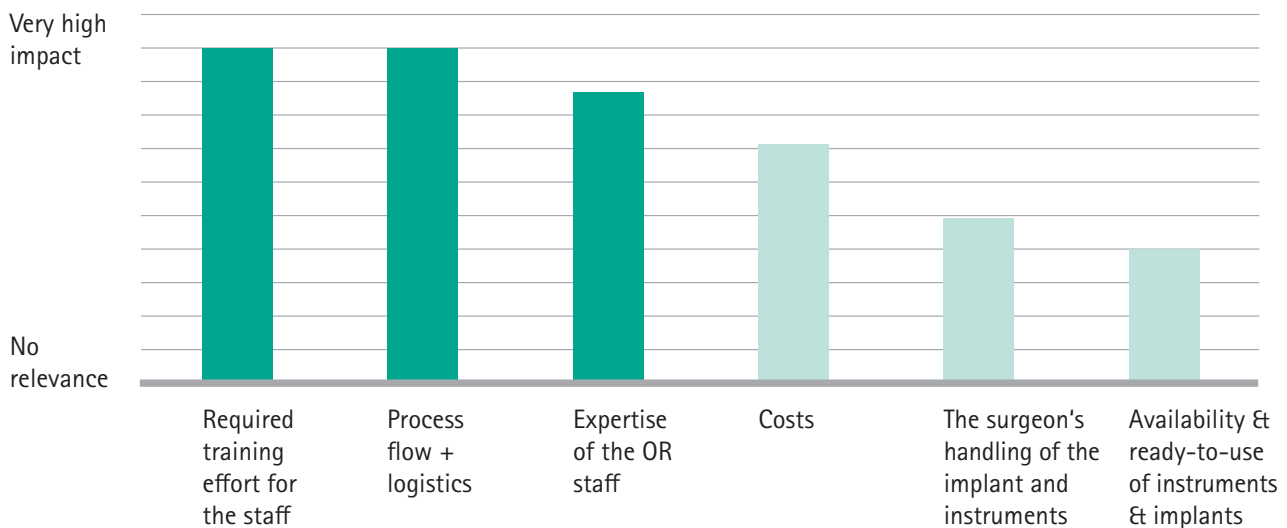
In contrast to our competitors the Ennovate® System covers a wider range of indications, allowing to reduce and optimize your in-house system portfolio.

Grasp this opportunity to bring down costs and save resources!

COMPANY INDICA- TION AREA	MEDTRONIC	DEPUY SYNTHE	K2M	NUVASIVE	ZIMMER BIOMET	STRYKER	GLOBUS MEDICAL	B. BRAUN / AESCULAP®
<b>Trauma</b>	Longitude® II Sextant®	USS® Expedium® Viper®	MESA® DENALI® MIS	Armada®	Polaris®	Xia3® ES2®	BEACON® CREO MIS®	Ennovate®
<b>Deformity</b>	Solera®	USS® II Expedium®	MESA® Def. EVEREST®	Armada®	Polaris® Def.	Xia3® Radius®	CREO AMP® REVERE Def.® PROTEX® Def.	Ennovate®
<b>Degenerative MIS</b>	Longitude® II Voyager® Sextant®	Viper® 2 Viper 3D® MIS	DENALI® MIS EVEREST® MIS	Precept®	PathFinder NXT® Ballista®	ES2® MANTIS®	REVOLVE® CREO MIS®	Ennovate®
<b>Degenerative Open</b>	Solera®	Expedium®	EVEREST® DENALI®	Armada® Reline®	Sequoia® Polaris® Vitality®	Xia3®	CREO® REVERE®	Ennovate®

Data on file. Product information available on request.

## WHAT IMPACT DOES THE REDUCTION TO ONE PEDICLE SCREW SYSTEM HAVE ON THE HOSPITAL (1)?



Study conducted in 90 spine centers.

# AESCULAP® Ennovate®

B | HEALTH ECONOMICS – PROCESS OPTIMIZATION

## HAVE IT THE WAY YOU WANT IT

Streamlining your workflow  
by reducing the number of  
instruments and implants



### MODULAR SYSTEM BASED ON INDIVIDUALIZATION

To be able to offer the right system for each spinal surgeon the AESCULAP® Ennovate® system has been developed as a modular system.

Depending on the individual and specific needs one can configure Ennovate® to use only the instruments and implants really required during the respective surgery.

It's your time to chose!

### BENEFITS:

- Configuration of trays in slim modules to improve the hospital workflow
- Space saving arrangement of trays in the operation room
- Reduced number of opened instrument trays for time savings during re-packing and reprocessing
- Complete range of sterile technology to cover your needs and increase safety
- Additional documentation system available to facilitate the hospital workflow



## SOLUTIONS BEYOND FUSION

With AESCULAP® Ennovate®, we introduce an all-in-one modular spine platform reducing your amount of instruments and implants, streamlining your processes and increasing your efficiency.



### AESCULAP® Ennovate® UNCLOSSES A NEW QUALITY OF STANDARDIZATION AND VERSATILITY

- One platform with wide-ranging modular solutions increase standardization and enhance efficiency
- Customizable portfolio precisely tailored to your needs facilitates lean hospital processes and reduced stock
- Comprehensive customer services enable profound competency enhancement



### BE SMART AND LET THE MODULAR DESIGN OF Ennovate® HELP YOU TO SIMPLIFY YOUR PROCESSES

- Comprehensive range of modular solutions provides a single source solution for spinal surgery
- Customizable set configurations reduce the amount of redundant instruments and implants, cutting the number of sterilization units by at least 50% and decreasing economic burden (2)
- Ennovate® process optimization solutions support you in a more efficient time management and savings of about 200 € per reprocessing cycle (3)

# STERILE PACKED IMPLANTS

Saving costs through a significant reduction of required process resources

### HOSPITAL A – REPROCESSING COSTS PEDICLE SCREWS

#### Average time and costs per sterile unit in € (4):

Personnel costs (approx. 46 min):	20.72
Media costs (washer-disinfector, container wash unit)	2.50
Maintenance	0.67
<u>Consumables</u>	<u>2.44</u>
Costs before VAT	26.33
Costs including VAT (19%)	31.33
<u>Contribution margin (example German CSSD)</u>	<u>7.50</u>
Costs per sterile unit:	38.83

#### Reprocessing units per year:

Use of pedicle screw system	500
No of pedicle screw implant trays	2

(Based on example of one type Ennovate® pedicle screws monoaxial and polyaxial with 2 washing and sterilization trays including set screws. Data example for reprocessing cost received from German clinic. International reprocessing costs may vary.)

#### Cost saving in €

38.83 € x 500 units x 2 trays

**= 38,830 €**

Additional potential savings for rods, connectors, containers etc. and systems without washing and sterilization trays.

#### Note:

According to the German society for sterile goods supply the costs for the reprocessing and control are higher than calculated so far (5).

## TIME AND COST EFFICIENCY

The repeated reprocessing of numerous implants provided for spinal surgery create financial expenses and are time-consuming.

In contrast, the use of sterile packed implants frees up time and resources at the sterilization department, which can then be invested in the reprocessing of further instruments.

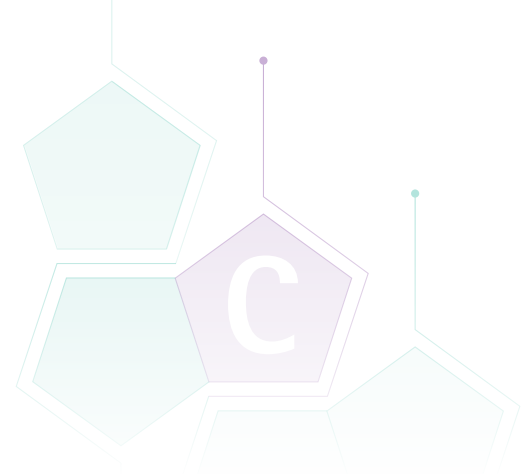
Alternatively we at AESCULAP® offer the AESCULAP® OrthoTray® as a validated washing and sterilization tray for our non-sterile packed implants. With this solution we aim to optimize and support the CSSD workflow, thereby reducing reprocessing costs.

## BENEFITS:

- Time and cost efficiency
- Cost savings through investment
- More efficient processes
- Complete sterile solution
- Implants always readily available

## EXAMPLE CALCULATION ON COST SAVINGS – REPROCESSING

Hospital with 500 spinal instrumentations per year using non-sterile packed pedicle screws with internal CSSD.

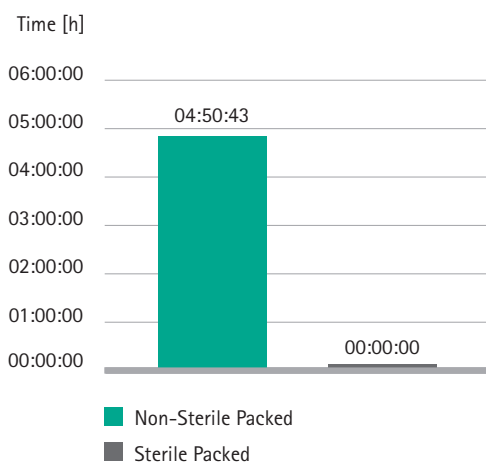


## SEE THE BIG PICTURE

A changeover to sterile brings down the overall costs in your organizational processes and does not only have an effect on the OR-process but also in other areas of your organization.

## TIME MEASUREMENTS IN THE CSSD (4)

### Average reprocessing time of non-sterile packed pedicle screws:



## RESULT:

- Reprocessing of non-sterile packed implants is highly time-consuming for CSSD
- No CSSD time required using sterile packed implants

## COSTS DOWN EFFICIENCY UP

Leveraging your process and reducing your upfront investment costs by designing the system around your needs

### A CHANGEOVER THAT CHANGES THINGS

It is in the nature of change to meet resistance, which is what we also experienced in our client organizations regarding the use of sterile packed spinal implants.

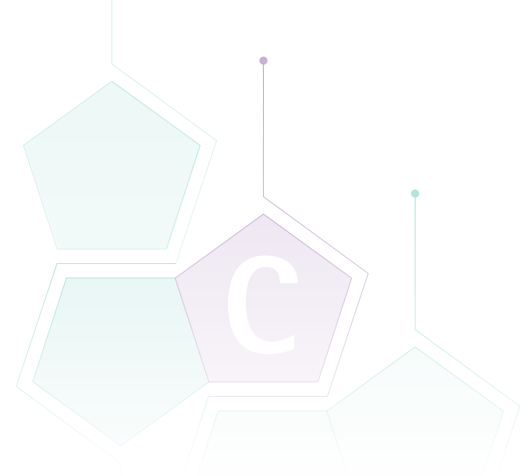
With the Ennovate® system we can now offer a fully sterile solution and combine it with an indispensable service concept regarding storage, supply and packaging.

### BENEFITS:

- Reduction of storage and logistics
- Reduction of handling costs
- Reduction of potential error sources
- Supplier as true system partner

THERE IS NO SIGNIFICANT TIME DIFFERENCE IN THE OPERATING ROOM WHEN USING STERILE PACKED PEDICLE SCREWS (4)!



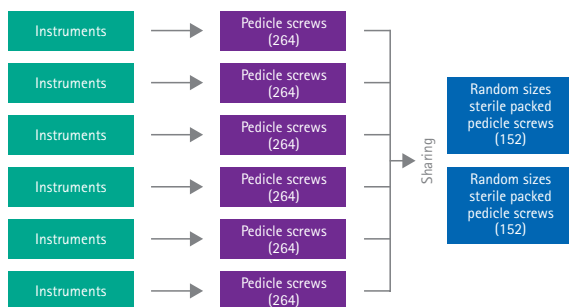


## EXAMPLE CALCULATIONS ON COST SAVINGS – INITIAL INVESTMENT (4)

- Two hospitals with 500 spinal instrumentations per year using Ennovate® pedicle screws
- Investment in 6 Ennovate® instrument sets
- Investment in complete set of monoaxial and polyaxial pedicle screws/one type

### Hospital A – Non-Sterile packed pedicle screws

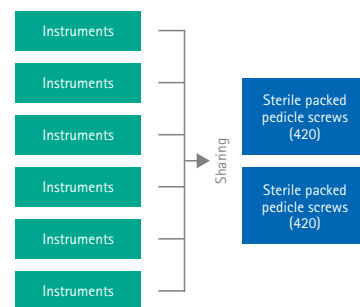
- 6 non-sterile packed implants sets standard sizes (= 2 washing/sterilization trays per instrument set)
- 2 sets pedicle screws with random sizes sterile packed
- 2 sets pedicle screws (Mono/Poly) non-sterile packed / 2 sets random sizes (Mono/Poly) sterile packed



Average of 1,888 screws  
+ High continuous reprocessing costs

### Hospital B – Sterile packed pedicle screws

- 2 sets pedicle screws sterile packed
- 2 sets pedicle screws (Mono/Poly) sterile packed



Average of 840 screws

### — NON-STERILE PACKED PEDICLE SCREWS

- Reprocessing costs for implants of ~40,000 € per year
- Higher risk of mis-allocation
- Risk of incomplete implant sets

### + STERILE PACKED PEDICLE SCREWS

- 56% reduction of initial investment through reduced number of Implants
- One pool with ready to use implants sharing instrument sets
- Clear overview of implant inventory
- Reduction of logistics, stock, handling and any other associated costs

## DIGITALIZATION IS ON ITS WAY

Benefiting from up-to-date  
technology supporting you  
in your workflow



### IMPROVING EXISTING PROCESSES USING NEW APPROACHES

Based on the experiences made at our client organizations AESCULAP® IT Services have developed intelligent solutions supporting both the Implant and Instrument side of the business.

#### Ennovate® BARCODE APP\*

The Ennovate® barcode app is independent from your internal systems and therefore quick and easy to implement.

Our aim was to develop an intuitively designed app, which gives access to all the product information you need. In our app you can now find product information not only for the scanned product, but also for any other related product.

Via the app you can commission product orders or repair works simply by the scan of a code and a tap of a finger. This avoids any kind of transmission error or order delay.

With the Ennovate® Barcode App you have the whole B. Braun AESCULAP® portfolio at your fingertips.

\* currently only available on B. Braun devices

### BENEFITS:

- Time and cost efficiency
- More efficient processes
- Lean asset management
- Reduction of error sources



## FULLY TRACEABLE



### Improving Patient Safety – Unique Device Identification (6) (UDI)

Ennovate® provides full traceability and safety standards according to MEDDEV and FDA regulations.

B. Braun AESCULAP® marks instruments and implants, both sterile packed and non-sterile packed, with a Data Matrix code. Our coding is accepted by the UDI as standard coding and also incorporates a Global Trade Item Number (GTIN).

It is to be expected that these standards will be applicable globally in near future, so we already built the supporting IT infrastructure for you.

## BENEFITS:

- Clear information on product including item number, GTIN, lot number and other information
- Full traceability through patient ID stickers with GS1 data matrix and instructions for use
- Increasing patient safety

## COMPLETE OVERVIEW

Instrument Management System – instacount®

Interconnected with your instrument management system and customized to your needs.

The requirements regarding traceability and documentation are ever increasing and regulatory bodies are pushing towards full traceability.

To support you in this matter we offer the ideal solution through instacount®, a software providing you with a comprehensive and customizable process support.

## BENEFITS:

- Optimizing standardized processes
- Complete documentation of sterile supply
- Well-structured and standardized inventory management
- Cost transparency across all processes



## HAVE IT WHEN YOU NEED IT

Trust in our services as  
systemic partner providing  
intelligent configurations of  
instrument models, fast  
shipment and ease of use



### EUROPEAN LOAN SERVICE AESCULAP®

The European Loan Service of AESCULAP® (ELSA) helps closing inventory gaps and overcoming bottlenecks in the supply of hospital equipment. The service also avoids additional purchase costs for infrequently used instrument, helping to save storage space and costs.

The Ennovate® loan system contains instrument sets for either OPEN or MIS surgery with the TRAUMA set as extension module. The instrument sets are designed around your needs according to operating procedure.

For easy orientation the Ennovate® sets are consistently color-coded across container, instrument tray and implant modules

Beside the AESCULAP® Ennovate® loan platform you can choose from over 50 different loan products, including spine surgery, all AESCULAP® hip and knee endoprosthesis systems, nail locking platforms and special revision instrument sets.

All loan sets are checked, setup and processed according to high quality standards.

**For more information please see our ELSA brochure.**



## WE COME TO YOU



### **In-house consulting services – surgical asset management**

**We go the extra mile in finding the right solution for each individual customer**

There is no other way in better understanding your organizations needs than visiting your organization and talk with you and your employees.

We define processes in your organizations workflow with optimization potential to then develop customized solutions.

### **BENEFITS:**

- Optimizing standardized processes
- Qualitative analysis
- Complete documentation of quality standards
- Detailed overview and feedback on performance
- Complete inventory analysis

## PARTNER AND ADVISOR

**Advisory services and set planning**  
**Every structural change opens up opportunities for improvement.**

Regarding purchases of new surgical instruments, motor system, devices or containers our team of advisors offer you a holistic approach looking to define a solution tailored according to your needs.



### **BENEFITS:**

- Overview of the latest developments in surgical products
- New insights in state-of-the-art surgical techniques
- Individual selection from a wide-ranging product portfolio
- Design of customized set system for flexible and efficient usage
- Reliable estimate of investment cost

# AESCULAP® Ennovate®

F | HEALTH ECONOMICS – Ennovate® BROCHURES

## DESIGNED AROUND YOUR NEEDS

We provide added value as your spine partner providing solutions for the improvement in your hospital pathway

### Ennovate® BROCHURES

Ennovate® OPEN –  
Surgical Technique  
048102



Ennovate® MIS –  
Surgical Technique  
000702



Ennovate® ELSA –  
European Loan Service  
of AESCULAP® 048502



Ennovate® Instrument  
and Tray Concept  
048402



Ennovate® Listing  
Sterile Packed Implants  
001002



Ennovate® Sterile  
Packed Implant Concept  
048602



Ennovate® Non-Sterile  
Packed Implant Concept  
000602



Ennovate®  
Health Economics  
001602



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- (6) Code of Federal Regulation Part 21 801 et seqq.



# AESCULAP® – a B. Braun brand

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