



ORTHOPAEDIC SURGERY

# AESCULAP<sup>®</sup> Excia<sup>®</sup> 12/14

HIP ENDOPROTHESIS SYSTEM



The Excia® Hip System is based on many years of experience with straight stem implants in France, where the first Excia® was implanted in April 2000.

Today, the Excia® system is used throughout Europe, the US and Japan.

The Excia® system concept of using one instrument set for implantation with or without bone cement is time tested and has been subject to ongoing enhancements.



## 15 Years of Excia®

### 2000

Start Excia® Implantations

### 2001 – 2004

- Excia® Caspar Implantations
- Excia® Experience Meeting Lyon
- Excia® OrthoPilot® Navigation
- FDA Approval in USA

### 2005

1st Excia® in USA

### 2006 – 2009

- Excia® L 8/10 High Offset
- Excia® 12/14
- Excia® Curved MIS Wingprofler
- MHLW Approval in Japan



## 2010

Excia® 10 Years

## 2011 – 2014

- Excia® Hip Platform
- SFDA Approval in China
- More than 95,000 Excia® sold

## 2015

Excia® 15 Years

## Characteristics

The prosthesis design, implantation technique and implant surface are important factors in primary hip replacement surgery.

Excia® is implanted using a rasp that works for both the cementless stem and the cemented stem with a distal centralizer.

The lateral offset of the Excia® stem increases with stem size, further enhancing the stability of the joint.

Excia® can be implanted with computer navigation and supports less invasive surgical techniques, thus making it well-equipped for the needs of advanced hip replacement surgery.

- ... design
- ... technique
- ... surface



## Characteristics

## ... design



The Excia® straight stem is designed for implant longevity with or without bone cement – with standard or high offset.



### Cementless design

Stem design with distal fit and proximal flanges for mechanical stability. Proximal fixation with the Plasmapore® coating.

### Cemented design

Wingless stem design preserves bone near the trochanter. Flanges allow a good proximal fit within the cement mantle.

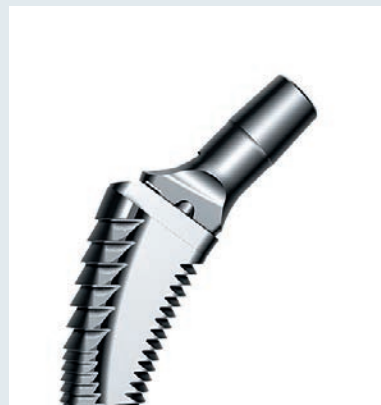
Good stem alignment with the distal centralizer.



Two design options for implantation  
with or without bone cement  
with standard or high offset

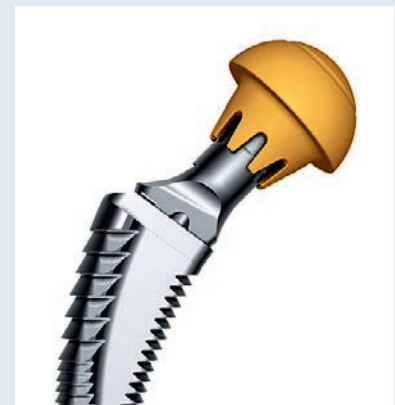
## Characteristics

## ... technique



### Lateral wing

Cementless and cemented Excia® stems differ by material, surface and especially by the lateral wing.



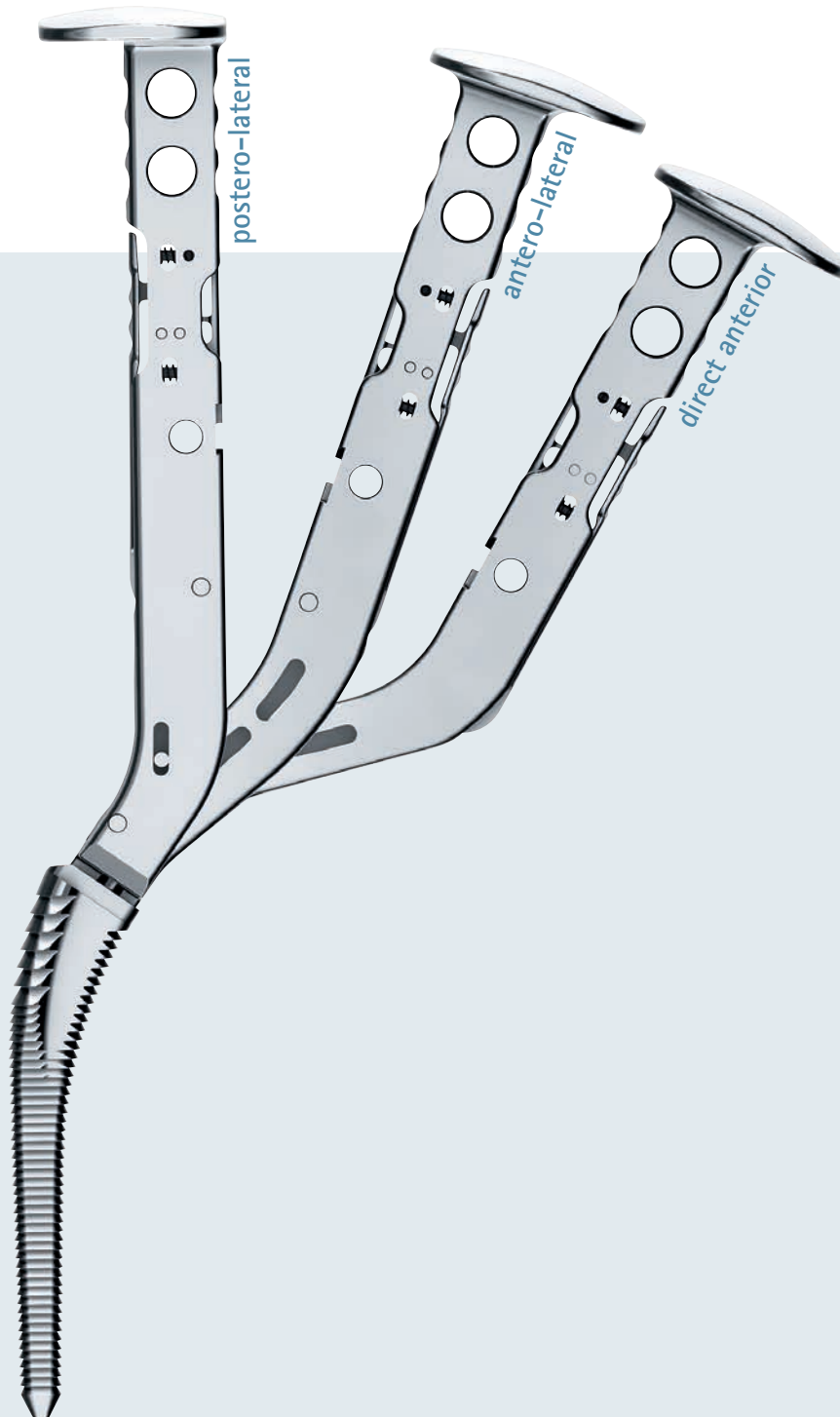
### Rasps

The wing rasp is only used in the final step of the cementless implantation.

The modular trial necks with standard or high offset offer the possibility to simulate an optimal soft tissue reconstruction.

The trial reduction with the stem rasps mimics the final implant accurately.

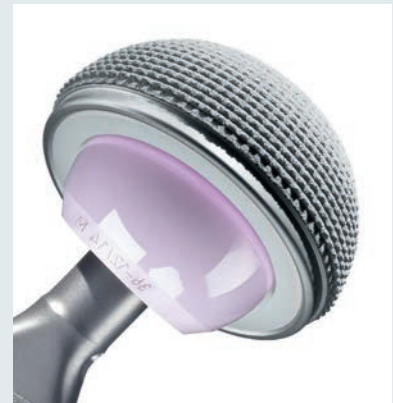
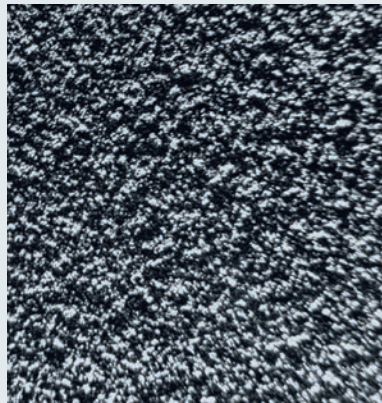
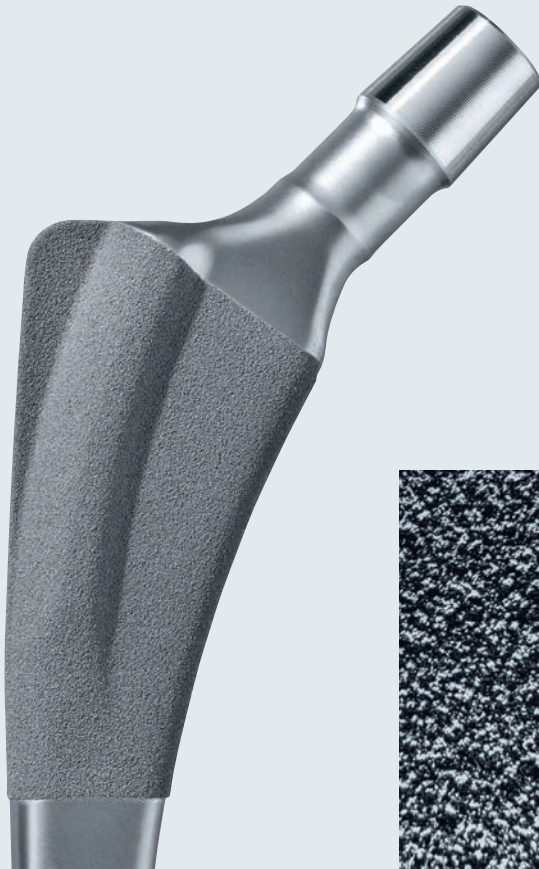




One instrument set for implantation  
with or without bone cement  
for all surgical approaches

## Characteristics

## ... surface



### Implant surface

The cementless Excia® features a proximal rough Plasmapore® porous coating.

### Plasmapore®

The rough 0.35 mm microporous pure titanium coating leads to direct bone apposition in the proximal part of the implant. (1)

### Results

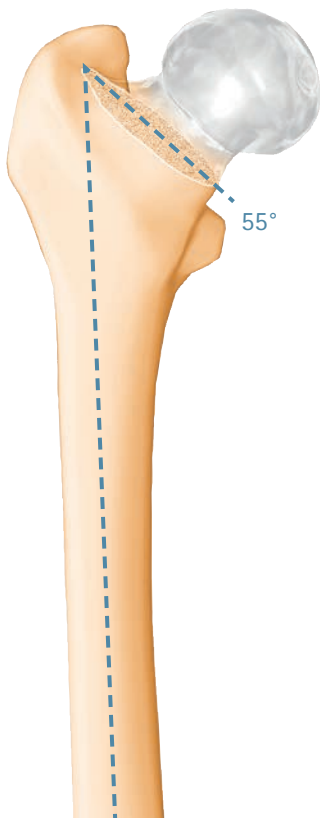
This is confirmed by long-term clinical experience with various cup and stem implants coated with Plasmapore® since 1987.

(1) Simank HG, Stuber M, Frahm R, Helbig L, van Lenthe H, Müller R.  
The influence of surface coatings of dicalcium phosphate (DCPD) and growth and differentiation factor-5 (GDF-5) on the stability of titanium implants in vivo.  
Biomaterials. 2006 Jul;27(21):3988-94



Plasmapore® -

AESCULAP®'s leading surface coating technology  
with more than 25 years of clinical experience



### Osteotomy

The osteotomy angle is 55 degrees. All markings on the instruments and implants are in 55° reference to this plane.



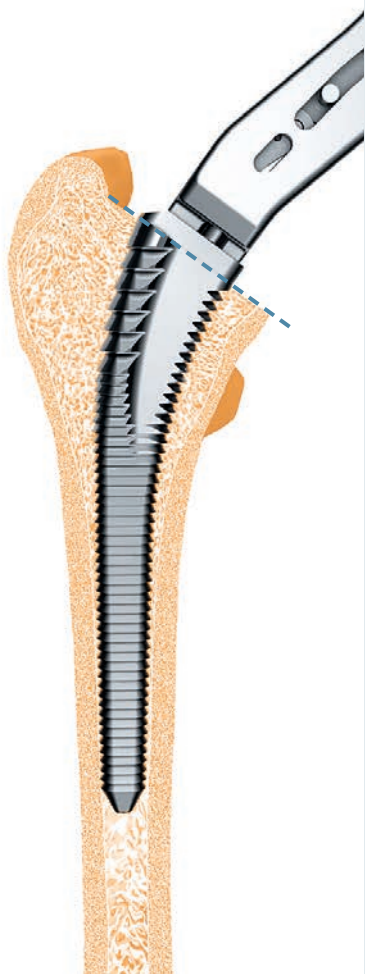
### Opening the medullary canal

The medullary canal is opened with a box osteotome, which is inserted posterolaterally and determines the femoral anteversion angle of the implant.



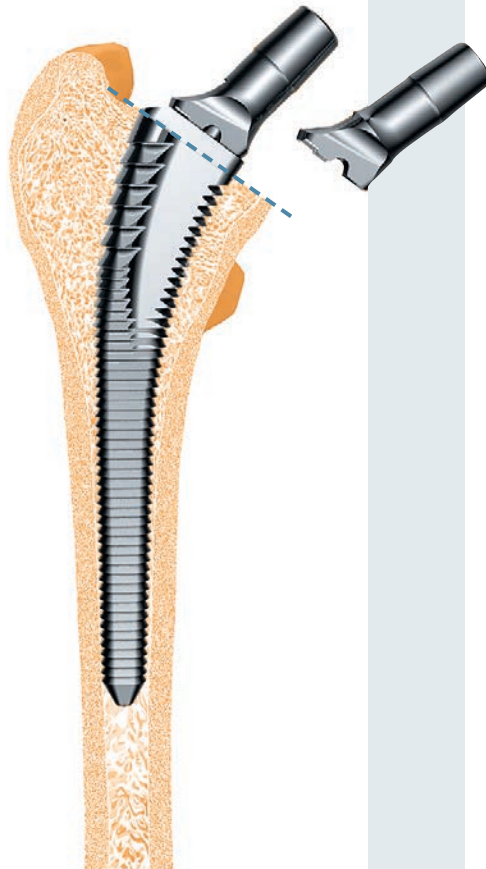
### Starter rasp

The starter rasp is an optional instrument which is used manually without any force to check the intramedullary situation. There is no need to use a hammer.



#### Rasp

The medullary canal is prepared with increasing sized rasps until the desired depth and stability are achieved.



#### Trial Reduction

In combination with the Excia® rasp the two modular trial necks with standard (135°) or high offset (128°, + 6 mm) simulate exactly the Excia® implant geometry.



The appropriate trial heads enable finally trial reduction and joint inspection with the Excia® rasp.



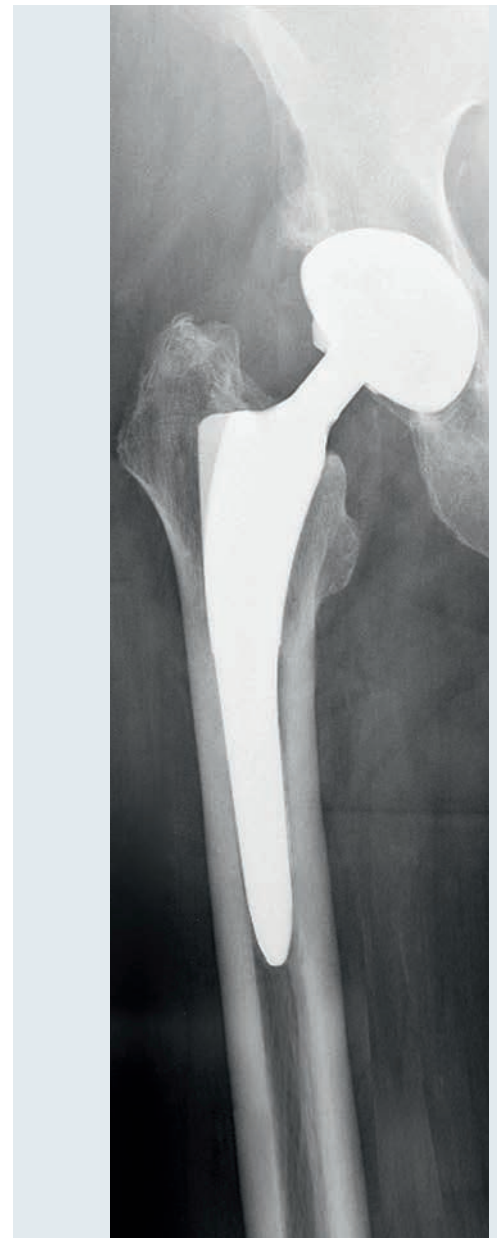
Cement mantle thickness	Rasp size	Excia® stem size	Distal centralizer size
1.0 mm	12	12	12
1.5 mm	12	11	12
2.0 mm	12	10	12

### Cemented implantation

For a cemented implantation the Excia® stem and centralizer sizes are selected according to the table above.

The distal centralizer size always corresponds to the size of the last rasp used.

The required thickness of the cement mantle can be adjusted from 1 to 2 mm, depending on the size of the final implanted stem.



#### Cementless implantation

For a cementless implantation, a groove for Excia's lateral wing is incised with the wing profiler, which is guided down a slot in the final stem rasp. The cementless Excia stem can be implanted after the trial reduction.

The size of the cementless Excia stem corresponds directly to the final stem rasp for a proper press-fit. The stem impactor controls the rotational alignment during implantation.

#### Biomechanical concept

Primary stability is achieved by a precise fit of the distal stem and rotational stability in the proximal area. Secondary stability results from bony ingrowth into the Plasmapore coating.

### Excia® 12/14 cementless



Size	Standard	Lateralised*
8 mm	NK198T	NK598T
9 mm	NK199T	NK599T
10 mm	NK200T	NK600T
11 mm	NK201T	NK601T
12 mm	NK202T	Nk602T
13 mm	NK203T	Nk603T
14 mm	NK204T	NK604T
15 mm	NK205T	NK605T
16 mm	NK206T	NK606T
17 mm	NK207T	NK607T
18 mm	NK208T	NK608T

ISOTAN®<sub>F</sub>

### Excia® 12/14 cemented



Size	Standard	Lateralised*
9 mm	NK689K	—
10 mm	NK690K	NK990K
11 mm	NK691K	NK991K
12 mm	NK692K	NK992K
13 mm	NK693K	NK993K
14 mm	NK694K	NK994K
15 mm	NK695K	NK995K
16 mm	NK696K	NK996K
17 mm	NK697K	Nk997K
18 mm	NK698K	NK998K

ISODUR®<sub>F</sub>

\* Excia® L (lateralised) implants have an increased offset of 6 mm compared with Excia® standard and a reduced CCD angle of 128°

### Ceramic modular prosthesis heads



12/14

Size	28 mm	32 mm	36 mm	40 mm
S	NK460D	NK560D	NK560D	NK750D
M	NK461D	NK561D	NK561D	NK751D
L	NK462D	NK562D	NK562D	NK752D
XL	—	NK563D	NK563D	NK753D

BioloX® delta

### Distal centralizer



9 mm	NK089
10 mm	NK090
11 mm	NK091
12 mm	NK092
13 mm	NK093
14 mm	NK094
15 mm	NK095
16 mm	NK096
17 mm	NK097
18 mm	NK098

PMMA

### Metal modular prosthesis heads



12/14

Size	28 mm	32 mm	36 mm	40 mm
S	NK429K	NK529K	NK669K	NK769K
M	NK430K	NK530K	NK670K	NK770K
L	NK431K	NK531K	NK671K	NK771K
XL	NK432K	NK532K	NK672K	NK772K
XXL	NK433K	NK533K	NK673K	NK773K

ISODUR®<sub>F</sub>

### IMSET Cement plug



10 mm	NK910
12 mm	NK912
14 mm	NK914
16 mm	NK916
18 mm	NK918

The materials used in the implant are listed on the packaging.

The IMSET plug has the following composition:

Gelatine (porcine based), approx. 57%

Glycerol (glycerin), approx. 37%

Water (purified), approx. 6%

Methylparahydroxybenzoate, approx. 0.2%

These components are in compliance with the European Pharmacopoeia standards.

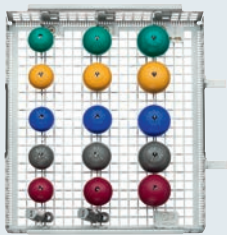


# INSTRUMENTS

## NT330 Excia® 12/14 Basic Set



In the tray NT329R three rasp handles can be stored. The small tray for the trial components fits on top.



Small tray with Excia® 12/14 trial components.

Recommended container only for Excia® Basic Set NT330  
AESCULAP® basic container 592 x 285 x 153 mm

### Consisting of:

NT329R	Tray with supports and small tray for trial components 489 x 253 x 106 mm
JH217R	Lid
TF004	Grafic template

ND844R	Insertion instrument
ND820R	Extraction instrument
NT321R	Wing profiler
NT118R	Modular box osteotome
ND017R*	Cross bar for rasp handle

### Excia® rasps

NT308R	Rasp size 8
NT309R	Rasp size 9
NT310R	Rasp size 10
NT311R	Rasp size 11
NT312R	Rasp size 12
NT313R	Rasp size 13
NT314R	Rasp size 14
NT315R	Rasp size 15
NT316R	Rasp size 16
NT317R	Rasp size 17
NT318R	Rasp size 18

### Rasp handles

NT001R*	Lateral approach, straight
NT002R*	Posterior approach, straight
NT003R*	Anterior approach, straight
NT004R*	Lateral approach, offset left
NT005R*	Lateral approach, offset right
NT006R*	Anterior approach, offset left
NT007R*	Anterior approach, offset right

### Excia® 12/14 trial heads

Size	28 mm	32 mm	32 mm
S	NT356	NT366	NT366
M	NT357	NT367	NT367
L	NT358	NT368	NT368
XL	NT359	NT369	NT369
XXL	NT360	NT370	NT370

### Excia® 12/14 trial necks

NT303R	Trial neck standard
NT305R	Trial neck lateralised

### Excia® optional instruments

NT301R*	Tray with supports 489 x 253 x 76 mm	NT323R*	Canal finder
JH217R*	Lid	NG922*	Excia® cemented X-ray templates
ND060*	Impactor for prosthesis heads	NG923*	Excia® cementless X-ray templates
ND845R*	Curved insertion instrument	ND058R*	Femoral head saw guide 55°
ND472R*	Starter rasp		

Recommended container for NT330 and NT301R  
AESCULAP® basic container 592 x 285 x 265 mm

with \* marked instruments please order separately

# AESCULAP® – a B. Braun brand

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