

Aesculap[®] Excia[®] 8 / 10

Hip Endoprosthesis System



Aesculap Orthopaedics

Excia[®]

Excellence in Arthroplasty



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 successfully 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.

Excia is one of the most important products in the Aesculap hip endoprosthesis range.



More than 10 Years of Excia[®]

2000

Start Excia Implantations

2001

Excia Caspar Implantations

2002

Excia Experience Meeting Lyon

2003

Excia OrthoPilot Navigation

2004

FDA Approval in USA

2005

1st Excia in USA



2006

Excia L 8 / 10
High Offset

2007

Excia 12 / 14

2008

Excia Curved
MIS Wingprofler

2009

MHLW Approval
in Japan

2010

Excia 10 Years

2011

Excia Hip Platform

Excia[®]

Excellence in Arthroplasty

Distinguished by

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

The prosthesis design, implantation technique and implant surface form the foundation for success in primary hip replacement surgery. Excia is implanted using a newly designed 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.



Excia[®]

Excellence in Arthroplasty

Distinguished by ... 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[®] μ -CaP coating.

Cemented design

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

Perfect stem alignment with the distal centralizer.

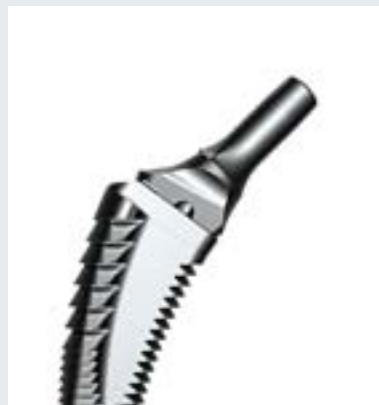


Two design options for implantation
with or without bone cement
with standard or high offset

Excia[®]

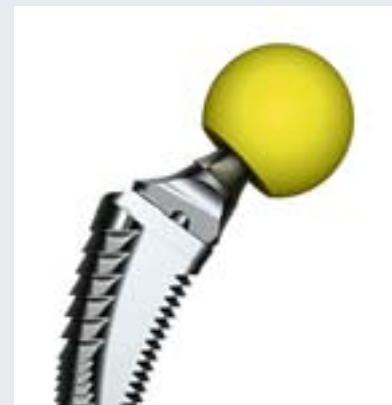
Excellence in Arthroplasty

Distinguished by ... technique



Lateral wing

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

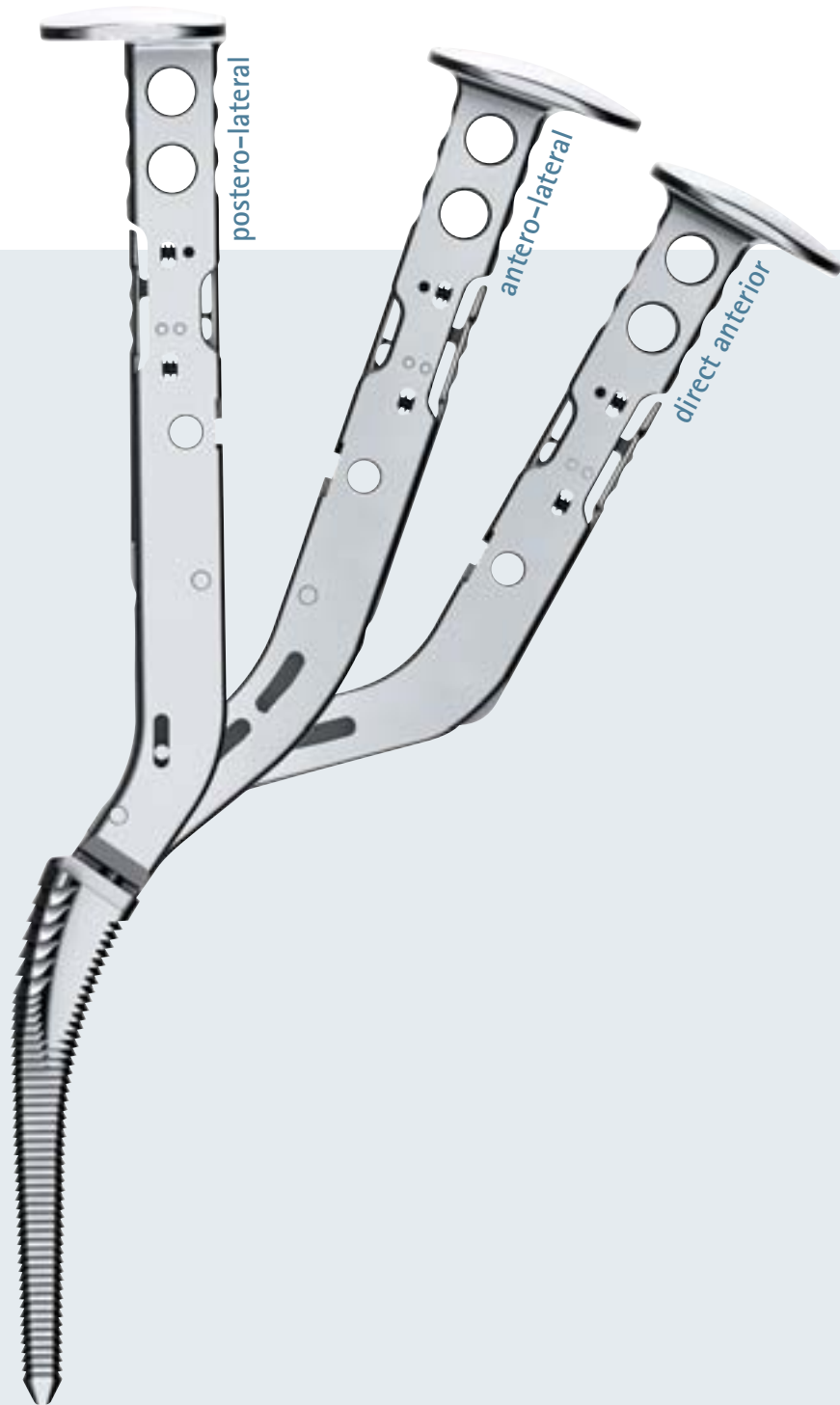


Rasps

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 stem rasps are so precisely machined that the trial reduction mimics the final implant perfectly.



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

Excia[®]

Excellence in Arthroplasty

Distinguished by ... surface



Implant surface

The cementless Excia features a proximal rough Plasmapore[®] porous coating. An additional 20 μm calcium phosphate layer is applied electrochemically.

Plasmapore[®] $\mu\text{-CaP}$

The calcium phosphate layer supports and accelerates the ingrowth of the bone into the Plasmapore[®] surface.

Results

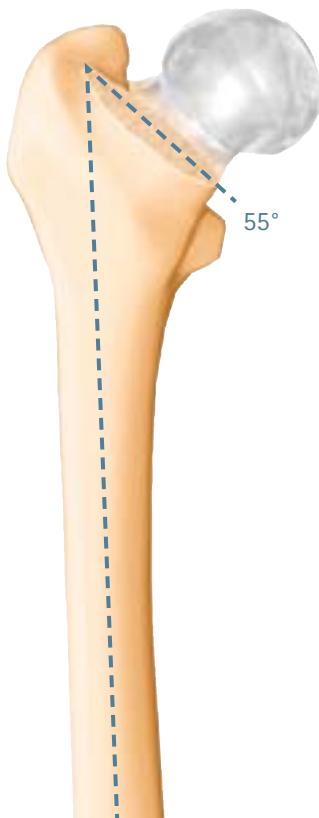
This is confirmed by long-term clinical experience with various cup and stem implants coated with Plasmapore[®] since 1987.



Plasmapore[®] μ -CaP –
Surface structure which provides
earlier direct bone contact

Excia[®]

Surgical Technique



Osteotomy

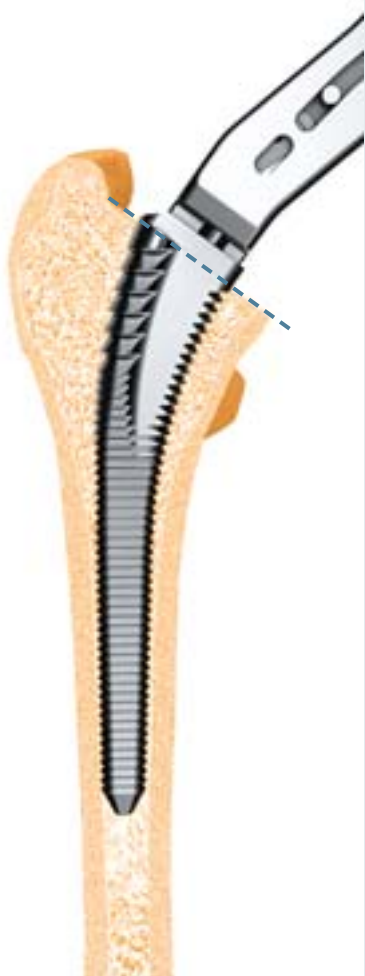
The osteotomy angle is 55°. All markings on the instruments and implants are in 55° reference to this plane. The resection is performed appr. 1.5 cm above the lesser trochanter.

Opening the medullary canal

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

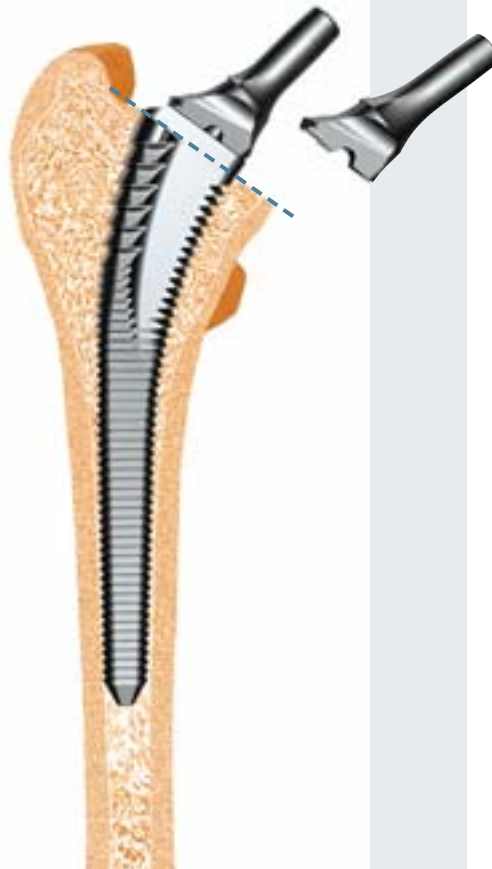
Starter rasp

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 perfectly the Excia implant geometry.



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

Excia[®]

Surgical Technique



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.

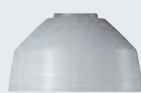
Biomechanical concept

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® μ -CaP coating.

Excia[®]

Cup Implants

Plasmacup[®] SC



Polyethylene Inserts



Ceramic Inserts



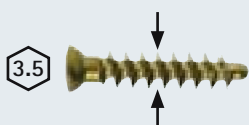
Size		symmetrical		posterior wall		asymmetrical		symmetrical		
		Ø 28 mm	Ø 32 mm	Ø 28 mm	Ø 32 mm	Ø 28 mm	Ø 32 mm	Ø 28 mm	Ø 32 mm	Ø 36 mm
44 mm	NH044T	NH191	–	NH401	–	NH471	–	NH091D	–	–
46 mm	NH046T									
48 mm	NH048T	NH192	NH202	NH402	–	NH472	–	–	NH102D	–
50 mm	NH050T									
52 mm	NH052T	NH193	NH203	NH403	NH413	NH473	NH323	–	NH103D	–
54 mm	NH054T									
56 mm	NH056T	NH194	NH204	NH404	NH414	NH474	NH324	–	NH104D	NH109D
58 mm	NH058T									
60 mm	NH060T	NH195	NH205	NH405	NH415	NH475	NH325	–	NH105D	NH110D
62 mm	NH062T									
64 mm	NH064T	NH196	NH206	NH406	NH416	NH476	NH326	–	NH106D	NH111D
66 mm	NH066T									
68 mm	NH068T									

ISOTAN[®] F
Plasmapore[®]

UHMWPE

Biolog[®] delta

Plasmacup[®] screws 6.5 mm



ISOTAN[®] F

Length	16 mm	20 mm	24 mm	28 mm	32 mm	36 mm	40 mm	44 mm
	NA766T	NA770T	NA774T	NA778T	NA782T	NA786T	NA790T	NA794T

Plasmacup[®] delta



Insert		
44 mm	NH644D	Ø 32 mm semi-modular
46 mm	NH646D	Ø 32 mm semi-modular
48 mm	NH648D	Ø 36 mm semi-modular
50 mm	NH650D	Ø 36 mm semi-modular
52 mm	NH652D	Ø 36 mm modular
54 mm	NH654D	Ø 36 mm modular

ISOTAN[®] F

Plasmacup delta implants complete the Plasmacup SC program with 36 and 32 mm ceramic inserts. These inserts **can not be combined** with Plasmacup SC components and are only supplied together with the Plasmacup delta cup component. Special PE inserts with shoulder and special ceramic inserts are available for revision operations.

Plasmacup[®] delta Revision Inserts

Plasmacup delta	PE cup inserts	Ceramic cup inserts
44 - 46 mm	NH407 (28 mm)	NH632D (32 mm)
48 mm	NH417 (32 mm)	NH636D (36 mm)
50 / 52 / 54 mm	NH418 (32 mm)	NH636D (36 mm)

UHMWPE

Biolog[®] delta

Cemented PE Cup – Standard



Low Profile

Size	Ø 28 mm	Ø 32 mm
42 mm	NK842	–
44 mm	NK844	–
46 mm	NK846	NK946
48 mm	NK848	NK948
50 mm	NK850	NK950
52 mm	NK852	NK952
54 mm	NK854	NK954
56 mm	NK856	NK956
58 mm	NK858	NK958
60 mm	NK860	NK960
62 mm	NK862	NK962
64 mm	NK864	NK964

UHMWPE

Cemented PE Cup – Snap Fit



Full Profile

Size	Ø 28 mm	Ø 32 mm
42 mm	–	–
44 mm	–	–
46 mm	NH947	–
48 mm	NH949	NH969
50 mm	NH951	NH971
52 mm	NH953	NH973
54 mm	NH955	NH975
56 mm	NH957	NH977
58 mm	NH959	NH979
60 mm	NH961	NH981
62 mm	NH963	NH983
64 mm	–	–

UHMWPE

Bipolar Cup



Size	Ø 28 mm
43 mm	NK043S
44 mm	NK044S
45 mm	NK045S
46 mm	NK046S
47 mm	NK047S
48 mm	NK048S
49 mm	NK049S
50 mm	NK050S
51 mm	NK051S
52 mm	NK052S
53 mm	NK053S
54 mm	NK054S
55 mm	NK055S

Implant steel
UHMWPE

Implant materials:

ISOTAN® F	Titanium forged alloy (Ti6Al4V / ISO 5832-3)
Plasmapore®	Pure titanium (Ti / ISO 5832-2)
ISODUR® F	Cobalt-chromium forged alloy (CoCrMo / ISO 5832-12)
BioloX® delta	Alumina matrix composite ceramic
UHMWPE	Ultra high molecular weight polyethylene (ISO 5834-2)
Implant steel	ISO 5832-1

Excia®

Implants

Excia® 8 / 10 cementless



Size	Standard	Lateralised*
8 mm	NC408T	NC428T
9 mm	NC409T	NC429T
10 mm	NC410T	NC430T
11 mm	NC411T	NC431T
12 mm	NC412T	NC432T
13 mm	NC413T	NC433T
14 mm	NC414T	NC434T
15 mm	NC415T	NC435T
16 mm	NC416T	NC436T
17 mm	NC417T	NC437T
18 mm	NC418T	NC438T

ISOTAN® F

Excia® 8 / 10 cemented



Size	Standard	Lateralised*
9 mm	NJ309K	—
10 mm	NJ310K	NJ330K
11 mm	NJ311K	NJ331K
12 mm	NJ312K	NJ332K
13 mm	NJ313K	NJ333K
14 mm	NJ314K	NJ334K
15 mm	NJ315K	NJ335K
16 mm	NJ316K	NJ336K
17 mm	NJ317K	NJ337K
18 mm	NJ318K	NJ338K

ISODUR® F

* 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



8 / 10

Size	28 mm	32 mm	36 mm
S	NJ101D	NJ106D	NJ116D
M	NJ102D	NJ107D	NJ117D
L	NJ103D	NJ108D	NJ118D
XL	—	NJ109D	NJ119D

BioloX® delta

Distal centraliser



Size	Code
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



8 / 10

Size	28 mm	32 mm
S	NJ131K	NJ126K
M	NJ132K	NJ127K
L	NJ133K	NJ128K
XL	NJ134K	NJ129K
XXL	NJ135K	NJ130K

ISODUR® F

IMSET Cement plug



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

Composition:

50 % gelatine (from pigs)
30 % glycerine
20 % water
0.02 % methylparahydroxybenzoate

Instruments

NT328 Excia® 8 / 10 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 8 / 10 trial components.

Recommended container only for Excia Basic Set NT328
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

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

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

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® 8 / 10 trial heads

Size	28 mm	32 mm	36 mm
S	NG301	NG316	NG341*
M	NG302	NG317	NG342*
L	NG303	NG318	NG343*
XL	NG304	NG319	NG344*
XXL	NG305	NG320	NG345*

Excia® 8 / 10 trial necks

NT302R	Trial neck standard
NT304R	Trial neck lateralised

NT300 Excia® Set for optional instruments



Recommended container for NT328 and NT300
Aesculap basic container 592 x 285 x 265 mm

Consisting of:

NT301R	Tray with supports 489 x 253 x 76 mm
JH217R	Lid
TF003	Grafic template

Optional instruments

ND060*	Impactor for prosthesis heads
ND845R*	Curved insertion instrument
ND847R*	Locked insertion instrument
ND472R*	Starter rasp
NT323R*	Canal finder

