Product Rationale

# C-Stem™ AMT C-Stem™

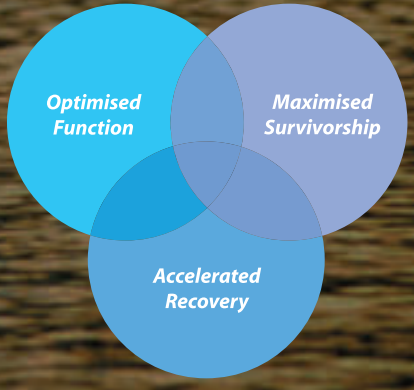
## Triple Tapered Stabilised Hip

DePuy
a Johnson & Johnson company

# Rising to the challenge of increased expectations

**People are living longer.** In the last 40 years THR has transformed from a revolutionary procedure, pioneered by visionary surgeons like Professor John Charnley, to a procedure routinely performed by thousands of surgeons around the world. But this is not all that has changed. The patients who are being treated with THR now expect to live longer than earlier generations.

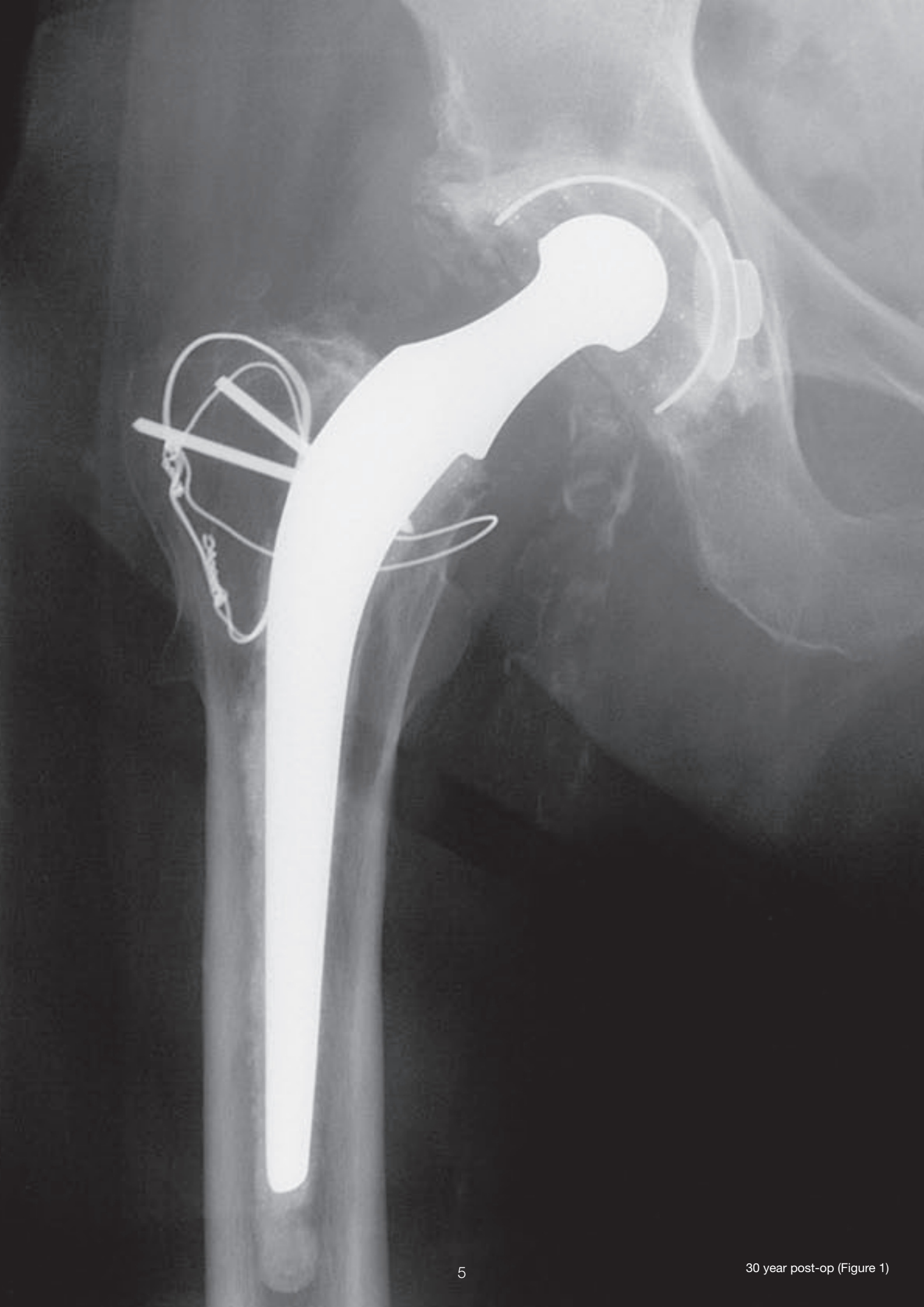
**Surgery is happening earlier.** The impressive clinical results published by centres of excellence show very few cases ending in failure. As confidence in THR has continued to rise, patients and surgeons are prepared to undertake surgery earlier – with high expectations of freedom from pain and good joint function. The desire is for a return to as active a lifestyle as possible. The effect is to extend the required survivorship of the implant still further.



# Balancing expectation against known implant life

The implant design, the materials and surgical techniques involved in THR have remained fundamentally unchanged over the past two decades. The Charnley® Hip's success at ten, fifteen, twenty and, remarkably, even at thirty years is still the benchmark by which all others – new and old – stand judgment. However, as the age criteria for a hip replacement operation decreases, the length of time the implant is expected to survive and avoid revision is progressively increasing. It is becoming more difficult to balance expectation with reality.

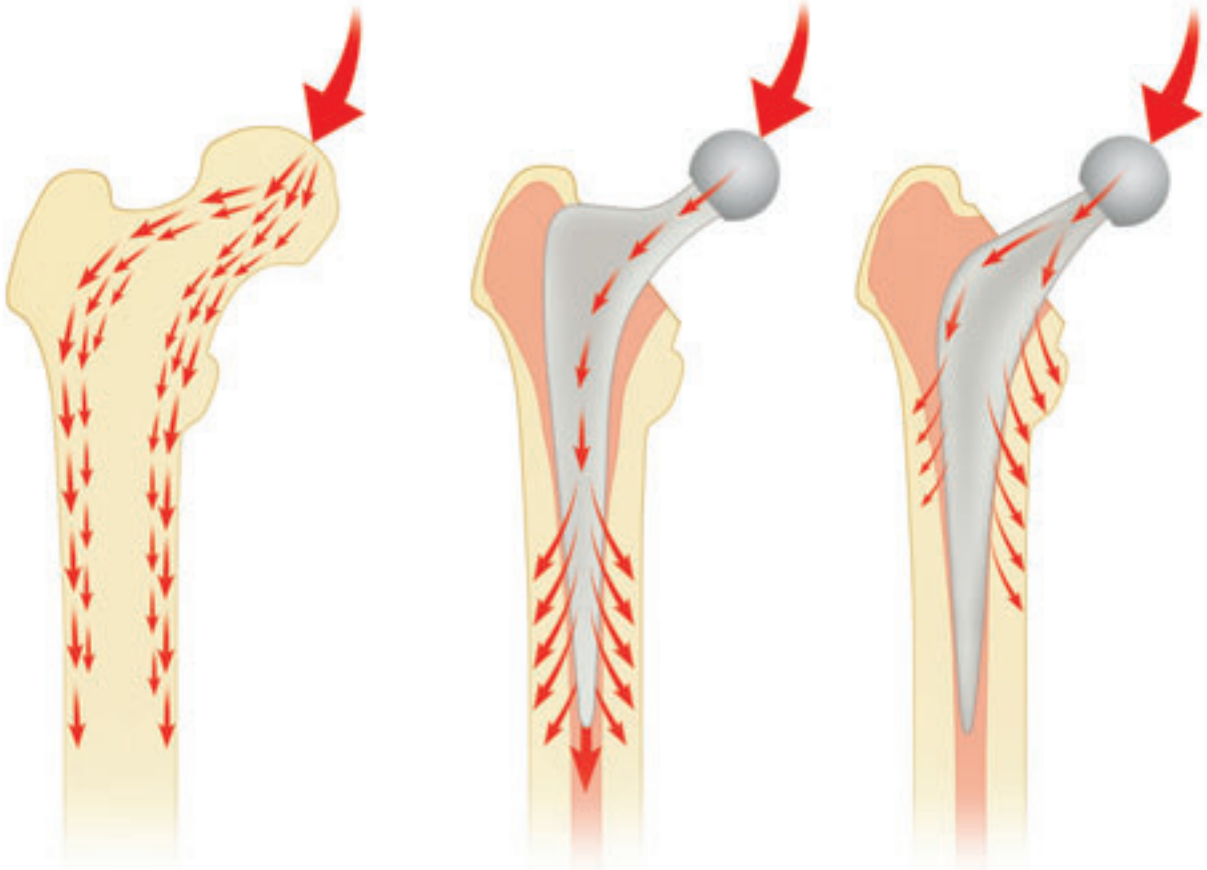
A major cause of long-term failure is the deterioration of strong supportive bone around the implant: negative bone remodelling (as can be seen in the X-ray, Figure 1). Good surgical technique with accurate implant alignment in primary surgery is essential, but it is not sufficient in itself to prevent the process of gradual deterioration. There is a need to address this primary mechanism of failure.





30 year post-op (Figure 1)

# The first cemented stem to show positive post-operative bone remodelling[1]



Load transfer patterns within the natural femur

Load transfer pattern from conventional stem forms

Load transfer pattern around the C-Stem™

The natural, complete femur accepts load through the femoral head and passes it down the bone through the cortices. Once the femoral neck is resected and a conventional tapered stem is implanted, that pattern changes. Load is passed along the centreline of the stem and released through the distal tip lower down the femur, bypassing and 'unloading' the proximal cortices. Since bone that is not stressed will become redundant and resorb, a pattern of negative bone remodelling becomes inevitable. This effect is exacerbated by distal hypertrophy due to excessive loading at the distal tip.

The C-Stem™ system changes that pattern by transferring positive load more anatomically to the proximal, medial and lateral cortices.

Immediate post-op

5 year post-op

## The evidence - observed bone remodelling.

In a cohort of 500 patients among the first to receive C-Stem™ implants, follow-up studies have shown clear evidence of positive bone remodelling in 20% of cases. The mean age of patients was 53.7 years, and the mean age of follow-up was 3.4 years (1 to 7 years).[1] The radiographic evidence of denser cancellous bone has been observed to appear at different stages post-operatively, possibly influenced as much by the activity level of patients as by the time elapsed. At 5 years this improvement in cancellous bone quality is clearly evident.

C-Stem™ C-Stem™ AMT

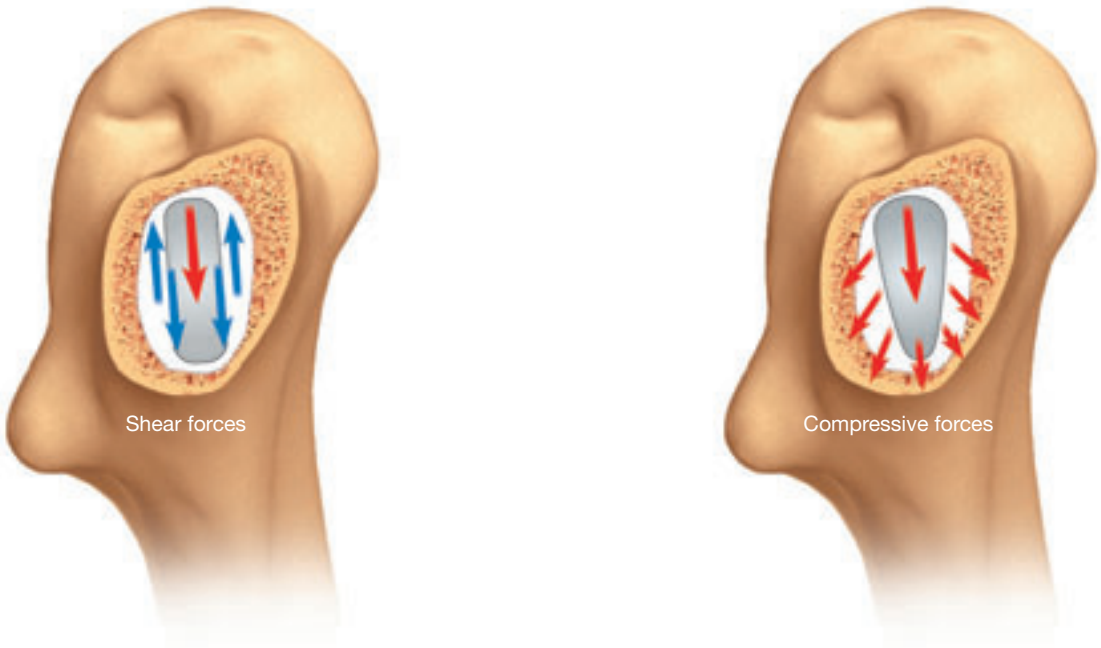
**Deepened medial profile loads the proximal femur.**

- Greater depth in the medial curve brings the loading area closer to the medial calcar.[2]
- Load transfers directly to supportive bone in the proximal femur, and reduces progressively as the smooth curve slims towards the distal tip.[3]
- Strong cortical bone is loaded positively, distal load transfer is minimised, hence negative bone remodelling is avoided.[3]

**Narrow tip, short stem length and void centraliser avoid distal loading.**

- Compared to other polished double tapered stems, the shorter overall stem length ensures optimum load transfer in the proximal medial region.[3]
- Narrow implant tip is correctly aligned in the femoral canal by the four-winged C-Stem™ void centraliser.
- Contact in the mid to distal diaphysis is prevented, and there is no end bearing.
- Minimised distal loading reduces the possibility of distal hypertrophy.[1]

# The evolution of our understanding




Straight, flat stem sections, joined by sharp corners, impose high peak stresses on narrow areas of the bone, undermining bone mineral density (Wolff's law). These sections are also subject to medial / lateral shear forces that can lead to stem loosening.[4]

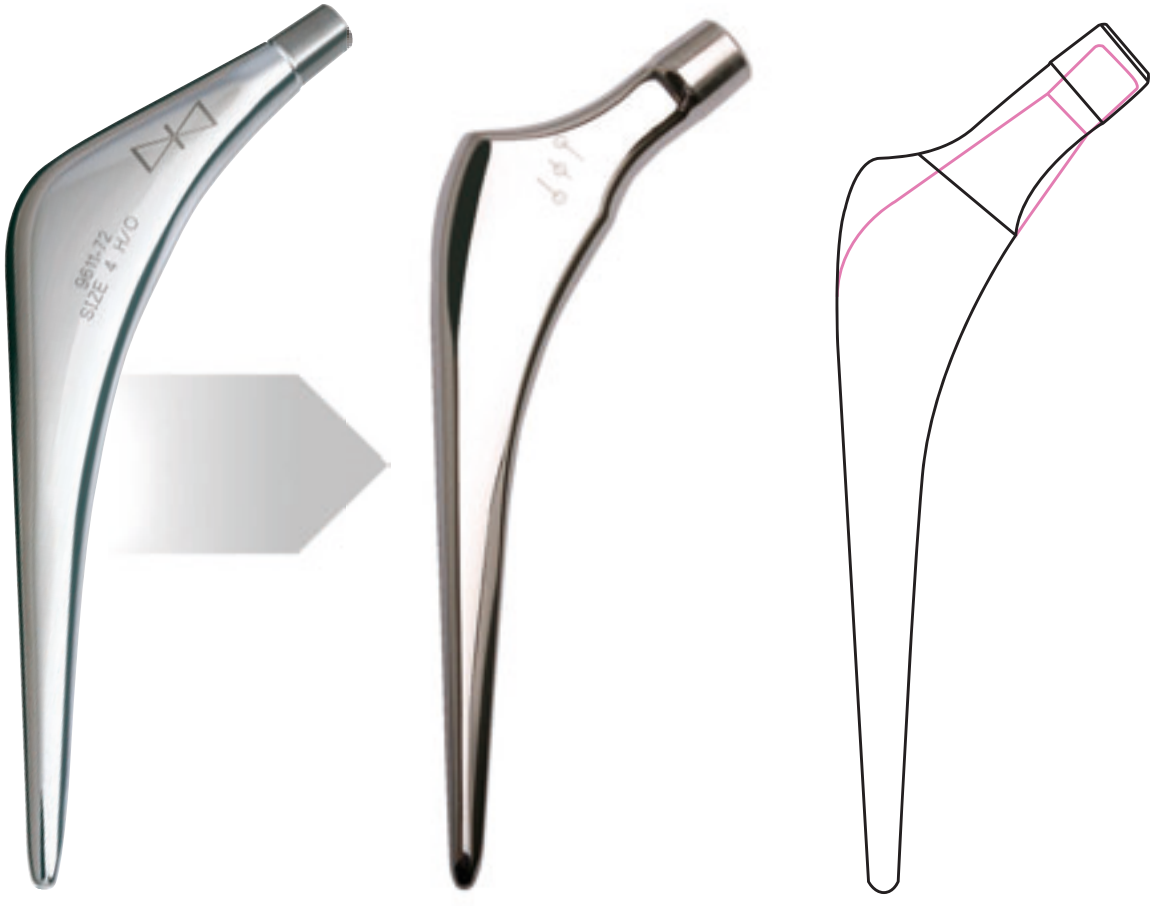
**Triple taper stem section to load the medial bone and optimise interface stresses.**

- The third taper of the C-Stem™ system, from lateral to medial, delivers increased load to the medial cortices.[3]
- The triple tapered C-Stem™ prosthesis also produces a smoother loading envelope that converts shear forces into compression.
- Optimal compression of the cement and bone encourages positive bone remodelling and helps maintain strong healthy bone in the proximal femur.[1]
- The C-Stem™ triple taper section compressively loads the cement mantle to achieve greater stability.
- Its polished stem surface prevents cement abrasion during any minute movement that initial stabilisation may involve.

# C-Stem™ AMT triple tapered stem an evolution of our understanding

Cemented THA continues to evolve and improve as time and experience reveal which design features improve results. The original C-Stem™ Triple Tapered Stem established a tapered slip stem that not only worked with the bone cement mantle, but was also the first stem to demonstrate positive bone remodelling through an even proximal load transfer.

The C-Stem™ AMT Triple Tapered Stem builds upon the clinical success of the original C-Stem™ Triple Tapered Stem. It has the same functional internal geometry as the C-Stem™ Triple Tapered Stem combined with the advanced biomechanics that are successfully utilised in the Summit® Tapered Stem Platform. This provides options to more accurately address the anatomy of each patient.



C-Stem™ C-Stem™ AMT


**Available in standard and high offset** to accurately restore patient anatomy

**Optimised Articul/eze® mini taper** to increase range of motion and reduce neck impingement

**Narrowed neck geometry** to increase range of motion

**Deepened medial profile** to load proximal femur anatomically

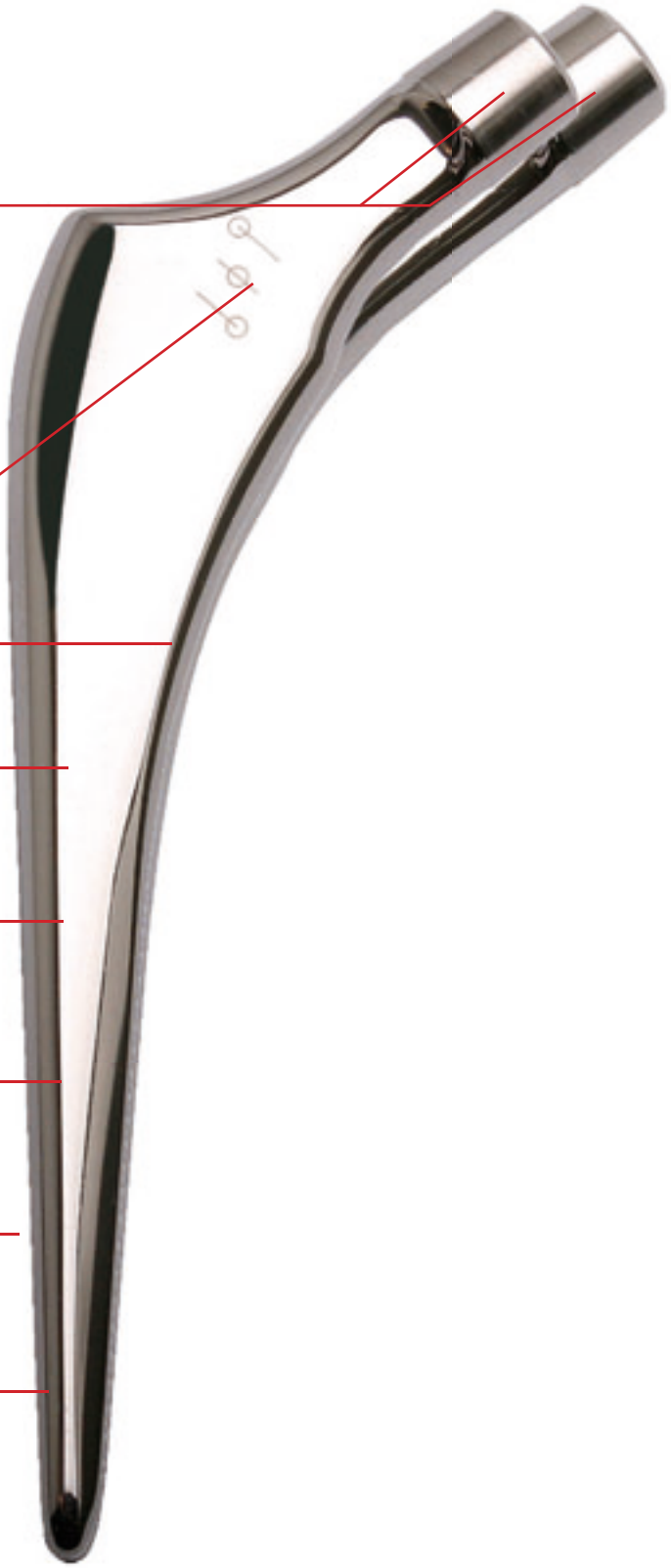
**Broad proximal medial to lateral dimensions** to increase torsional stability

**Highly-polished surface finish** to prevent “sandpapering” effect at the stem-cement interface

**Multi-tapered geometry to** create an even load transfer from stem to bone for enhanced bone remodelling

**Triple taper stem section** to load the medial bone and optimise interface stresses

**Narrow tip, short stem length and void centraliser** to prevent distal loading



# Restoring function through enhanced biomechanics


**Progressive offset configuration enables optimal biomechanical restoration without increasing leg length.**

- By increasing joint offset, the surgeon can lower the joint reactive forces and potentially minimise loosening, wear debris and dislocation.
- Biomechanical restoration is accomplished through dual offset options for each stem. The definitive offset can be determined intraoperatively with the use of trial neck segments.

The C-Stem™ AMT Triple Tapered Stem improves upon the original C-Stem™ Triple Tapered Stem by expanding options surgeons have to restore function. Utilising the same enhanced biomechanics that the Summit® Platform has successfully used to restore patient function, the C-Stem™ AMT Triple Tapered Stem can now more accurately address offset, joint stability and range of motion.

This in turn can reduce the risk of impingement, dislocation and wear debris associated with impingement on the polyethylene. Reducing these risks while increasing patient satisfaction through proper leg length restoration, increased range of motion and restored offset is made possible with the range of options surgeons have to restore function.

The high offset option directly lateralises the stem by 6-8 mm, depending on stem size.

The clinically proven Articul/eze® 12/14 taper has been shortened so that it is fully captured by all non-skirted Articul/eze® heads, thus eliminating the creation of a false skirt due to trunnion protrusion

The polished neck with reduced A/P dimensions is designed to reduce wear debris generation secondary to prosthetic impingement.

# A stem for virtually every patient


8 High Offset C-Stem™ AMT Implants
8 Primary C-Stem™ AMT Implants

# Compatibility with DePuy High Performance Bearings

Head diameters of 22-36 mm in both metal and ceramic provide the surgeon with patient treatment options.

Additionally, the range of XL heads from 39-63 mm can be used with C-Stem™ AMT Triple Tapered Stem.

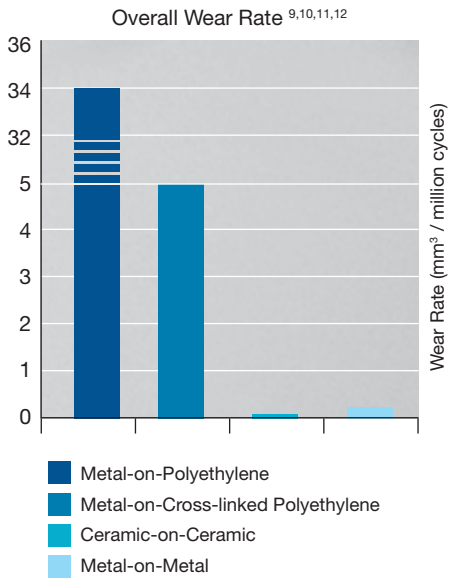
Stem selection involves more than selecting a reliable femoral stem with a simplified surgical technique and instrumentation. When you choose a stem you are also choosing the bearing and cup option you will use to best restore function to your patients.

The C-Stem™ AMT Triple Tapered Stem is compatible with the Pinnacle® Cup System which offers a range of High Performance Bearing options. This comprehensive portfolio provides the options needed to restore functions to today's high-demand patient. This includes metal-on-metal, metal-on-crossed linked poly, ceramic-on-ceramic as well as a variety of head sizes that work with C-Stem™ AMT Triple Tapered Stems biomechanics to restore offset, increase ROM, decrease wear and decrease the risk of impingement.

# Total system approach to THR

## Comprehensive commitment to low implant wear.

The C-Stem™ Triple Tapered Stem system is compatible with both cemented and cementless cups and gives the freedom to select the femoral head / acetabular cup combination to suit each patient. The proven flanged Ogee® cemented cup[5] fully occludes the cement, ensuring good pressurisation and restricting the escape of particles. The Pinnacle™ cementless cup has evolved from the proven Duraloc® cup design[6,6a] and allows uncompromised intra-operative selection of polyethylene, ceramic or metal bearing surfaces. For each bearing combination – ceramic-on-ceramic, metal-on-metal and ceramic or metal-on-highly cross-linked polyethylene – the component finish and design ensure extremely low wear characteristics. In younger patients with more active lifestyles, the risk of osteolysis triggered by wear can be minimised with high performance, low-wear bearing components.[7,8]




## Avoiding dislocation, restoring maximum range of movement.

The slim neck profile of the C-Stem™ Triple Tapered Stem prosthesis receives modular heads up to 36 mm in size. This combination of narrow neck and large diameter head maximises range of movement without compromising stability, particularly for younger, more active patients.

This range of movement is further enhanced using the C-Stem™ AMT Triple Tapered Stem with the reduced diameter neck in the A-P profile.

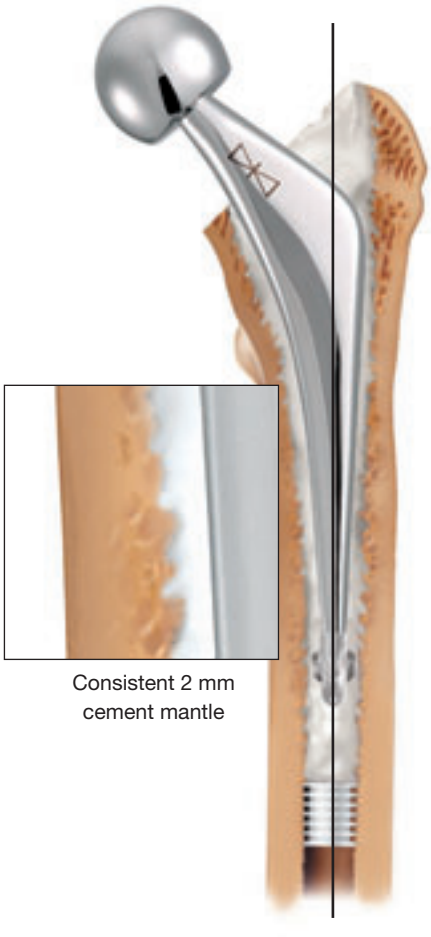
C-Stem™

C-Stem™ AMT


65-6666
45°
COLLAR ANGLE

# Precision instruments assure optimum cementation

C-Stem™ and C-Stem™ AMT surgical instruments have been developed to assist the surgeon to obtain precise implant position and alignment within the femur. Efficient, diamond tooth broaches cut a cavity that accurately reflects the C-Stem™ Triple Tapered Stems unique profile, assuring a cement mantle around the implant that is entirely uniform and of optimum thickness to confirm stability and prevent mantle failure.[13,14,15]



Consistent 2 mm
cement mantle

# Ordering Information - C-Stem™

**C-Stem™ Core Instrument Kit**

2001-65-000 Excel™ Femoral Head Impactor

2522-00-502 Stem Introducer

856696 C-Stem™ Diamond Broach Handle

855949 C-Stem™ Diamond Broach Remover

9611-91-500 C-Stem™ Diamond Broach Size 1
9611-92-500 C-Stem™ Diamond Broach Size 2
9611-93-500 C-Stem™ Diamond Broach Size 3
9611-94-500 C-Stem™ Diamond Broach Size 4
9611-95-500 C-Stem™ Diamond Broach Size 5
9611-96-500 C-Stem™ Diamond Broach Size 6

9612-19-500 C-Stem™ Diamond Broach Instrument Case

9612-20-501 C-Stem™ Diamond Broach Trial Neck Size CDH
9612-01-501 C-Stem™ Diamond Broach Trial Neck Size 1
9612-02-501 C-Stem™ Diamond Broach Trial Neck Size 2
9612-03-501 C-Stem™ Diamond Broach Trial Neck Size 3
9612-04-501 C-Stem™ Diamond Broach Trial Neck Size 4
9612-05-501 C-Stem™ Diamond Broach Trial Neck Size 5
9612-06-501 C-Stem™ Diamond Broach Trial Neck Size 6

9612-12-501 C-Stem™ Diamond Broach Trial Neck Size 2 High Offset
9612-13-501 C-Stem™ Diamond Broach Trial Neck Size 3 High Offset
9612-14-501 C-Stem™ Diamond Broach Trial Neck Size 4 High Offset
9612-15-501 C-Stem™ Diamond Broach Trial Neck Size 5 High Offset

## Individual Instruments

2001-42-000 Excel™ T-Handle

2001-43-000 Excel™ Intra Medullary Initiator

2354-10-000 Muller Awl Reamer With Hudson End

2002-25-000 Anteversion Osteotome Medium

9611-90-500 C-Stem™ Diamond Broach Size CDH

9613-13-000 Primary C-Stem™ X-Ray Templates
9613-14-000 Revision C-Stem™ X-Ray Templates
9613-13-500 C-Stem™ Asian Templates

## Diamond Broach & Neck Trial Kit Size 7 & 8

9611-97-500 C-Stem™ Diamond Broach Size 7
9611-98-500 C-Stem™ Diamond Broach Size 8

9612-07-501 C-Stem™ Diamond Broach Trial Neck Size 7
9612-08-501 C-Stem™ Diamond Broach Trial Neck Size 8

## C-Stem™ Neck Resection Kit

9612-09-000 Neck Resection Guide
9751-90-000 Neck Resection Calliper
9614-16-000 Neck Resection Osteotomy Template

# Ordering Information - C-Stem™

**C-Stem™ Canal Reamer Kit**

| | |
|---|---|
| 9611-75-000 | Canal Reamer 8 mm |
| 9611-76-000 | Canal Reamer 9 mm |
| 9611-77-000 | Canal Reamer 10 mm |
| 2105-14-000 | Canal Reamer 11 mm |
| 9611-79-000 | Canal Reamer 12 mm |
| 9611-80-000 | Canal Reamer 13 mm |
| 9611-81-000 | Canal Reamer 14 mm |
| 9611-82-000 | Canal Reamer 15 mm |
| 9611-83-000 | Canal Reamer 16 mm |
| 9611-84-000 | Canal Reamer 17 mm |
| 9611-85-000 | Canal Reamer 18 mm |
| 9611-86-000 | Canal Reamer 19 mm |
| 9611-87-000 | Canal Reamer 20 mm |
| 2611-30-000 | C-Stem™ Femoral Reamer Case |

**Trial Heads 22.225 mm**

| | |
|---|---|
| 2522-22-001 | Trial Head 22.225 - 3 |
| 2522-22-002 | Trial Head 22.225 +0 |
| 2522-22-003 | Trial Head 22.225 +3 |
| 2522-22-004 | Trial Head 22.225 +6 |

**Trial Heads 26 mm**

| | |
|---|---|
| 2522-26-001 | Trial Head 26 - 3 |
| 2522-26-002 | Trial Head 26 +0 |
| 2522-26-003 | Trial Head 26 +3 |

**Trial Heads 28 mm**

| | |
|---|---|
| 2522-28-001 | Trial Head 28 - 3 |
| 2522-28-002 | Trial Head 28 +0 |
| 2522-28-003 | Trial Head 28 +3 |
| 2522-28-004 | Trial Head 28 +6 |

**28 mm 9/10 Alternative Bearing (AB) Head Trial**

| | |
|---|---|
| 9611-56-000 | Alternative Bearing Head Trial Neck Length - 3 |
| 9611-57-000 | Alternative Bearing Head Trial Neck Length +0 |
| 9611-58-000 | Alternative Bearing Head Trial Neck Length +3 |
| 9611-59-000 | Alternative Bearing Head Trial Neck Length +6 |

**36 mm 9/10 Alternative Bearing (AB) Head Trial**

| | |
|---|---|
| 9608-08-001 | 36 mm 9/10 Alternative Bearing Head Trial Neck Length - 3 |
| 9608-09-001 | 36 mm 9/10 Alternative Bearing Head Trial Neck Length +0 |
| 9608-10-001 | 36 mm 9/10 Alternative Bearing Head Trial Neck Length +3 |
| 9608-11-001 | 36 mm 9/10 Alternative Bearing Head Trial Neck Length +6 |

**Individual Codes Trial Heads 32 mm**

| | |
|---|---|
| 2522-32-001 | Elite™ Implant Trial Head 32 mm - 3 |
| 2522-32-002 | Elite™ Implant Trial Head 32 mm +0 |
| 2522-32-003 | Elite™ Implant Trial Head 32 mm +3 |

**C-Stem™ Femoral Implants**

| | |
|---|---|
| 9611-60-000 | C-Stem™ CDH |

| | |
|---|---|
| 9611-61-000 | C-Stem™ Size 1 Primary |
| 9611-62-000 | C-Stem™ Size 2 Primary |
| 9611-63-000 | C-Stem™ Size 3 Primary |
| 9611-64-000 | C-Stem™ Size 4 Primary |
| 9611-65-000 | C-Stem™ Size 5 Primary |
| 9611-66-000 | C-Stem™ Size 6 Primary |
| 9611-67-000 | C-Stem™ Size 7 Primary |
| 9611-68-000 | C-Stem™ Size 8 Primary |

| | |
|---|---|
| 9613-15-000 | C-Stem™ High Offset Size 2 |
| 9611-70-000 | C-Stem™ High Offset Size 3 |
| 9611-72-000 | C-Stem™ High Offset Size 4 |
| 9611-74-000 | C-Stem™ High Offset Size 5 |

| | |
|---|---|
| 9613-07-000 | C-Stem™ Size 4 Revision 200 |
| 9613-08-000 | C-Stem™ Size 4 Revision 240 |
| 9613-09-000 | C-Stem™ Size 6 Revision 200 |
| 9613-10-000 | C-Stem™ Size 6 Revision 240 |
| 9613-11-000 | C-Stem™ Size 8 Revision 200 |
| 9613-12-000 | C-Stem™ Size 8 Revision 240 |

| | |
|---|---|
| 9611-00-000 | C-Stem™ Size 0A |
| 9611-00-500 | C-Stem™ Size 1A |
| 9611-01-500 | C-Stem™ Size 2A |
| 9611-02-500 | C-Stem™ Size 3A |

Cement Restrictors (Polyethylene)

| | |
|---|---|
| 5460-10-000 | Cement Restrictor Size 1 |
| 5460-12-000 | Cement Restrictor Size 2 |
| 5460-14-000 | Cement Restrictor Size 3 |
| 5460-16-000 | Cement Restrictor Size 4 |
| 5460-18-000 | Cement Restrictor Size 5 |
| 5460-20-000 | Cement Restrictor Size 6 |
| 5460-22-000 | Cement Restrictor Size 7 |

# Ordering Information - C-Stem™

**C-Stem™ Femoral Trials Core Sizes**

| | |
|---|---|
| 9611-88-000 | Peg For C-Stem™ Trial Stem |
| 9614-02-000 | C-Stem™ Trial Femoral CDH |
| 9614-03-000 | C-Stem™ Trial Femoral Size 1 |
| 9614-04-000 | C-Stem™ Trial Femoral Size 2 |
| 9614-05-000 | C-Stem™ Trial Femoral Size 3 |
| 9614-06-000 | C-Stem™ Trial Femoral Size 4 |
| 9614-07-000 | C-Stem™ Trial Femoral Size 5 |
| 9614-08-000 | C-Stem™ Trial Femoral Size 6 |
| 9613-16-000 | C-Stem™ Trial Femoral Size 2 High Offset |
| 9614-11-000 | C-Stem™ Trial Femoral Size 3 High Offset |
| 9614-12-000 | C-Stem™ Trial Femoral Size 4 High Offset |
| 9614-13-000 | C-Stem™ Trial Femoral Size 5 High Offset |

**Individual Codes**

| | |
|---|---|
| 9614-09-000 | C-Stem™ Trial Femoral Size 7 |
| 9614-10-000 | C-Stem™ Trial Femoral Size 8 |

**C-Stem™ Revision Femoral Trials**

| | |
|---|---|
| 9612-34-000 | C-Stem™ Revision Trial Femoral Size 4 200 |
| 9612-35-000 | C-Stem™ Revision Trial Femoral Size 4 240 |
| 9612-36-000 | C-Stem™ Revision Trial Femoral Size 6 200 |
| 9612-37-000 | C-Stem™ Revision Trial Femoral Size 6 240 |
| 9612-38-000 | C-Stem™ Revision Trial Femoral Size 8 200 |
| 9612-39-000 | C-Stem™ Revision Trial Femoral Size 8 240 |
| 9612-18-000 | C-Stem™ Instrument Tray 2 - Trial Stems |

**C-Stem™ Asian Sizes Kit**

| | |
|---|---|
| 9614-03-500 | C-Stem™ Trial Stem Size 0A |
| 9614-00-500 | C-Stem™ Trial Stem Size 1A |
| 9614-01-500 | C-Stem™ Trial Stem Size 2A |
| 9614-02-500 | C-Stem™ Trial Stem Size 3A |
| 9610-79-500 | C-Stem™ Asian Trial Neck Size 0 |
| 9611-99-500 | C-Stem™ Asian Trial Neck Size 1 |
| 9612-99-500 | C-Stem™ Asian Trial Neck Size 2 |
| 9613-99-500 | C-Stem™ Asian Trial Neck Size 3 |

| | |
|---|---|
| 9611-83-500 | C-Stem™ Broach Size 0A |
| 9611-80-500 | C-Stem™ Broach Size 1A |
| 9611-81-500 | C-Stem™ Broach Size 2A |
| 9611-82-500 | C-Stem™ Broach Size 3A |

**Elite™ Modular Heads 9/10 Taper**

| | |
|---|---|
| 9627-30-000 | 22.225 mm Elite™ Modular Head - 3 |
| 9625-67-000 | 22.225 mm Elite™ Modular Head +0 |
| 9627-31-000 | 22.225 mm Elite™ Modular Head +3 |
| 9625-29-000 | 22.225 mm Elite™ Modular Head +6 |

| | |
|---|---|
| 9625-69-000 | 26 mm Elite™ Modular Head - 3 |
| 9625-70-000 | 26 mm Elite™ Modular Head +0 |
| 9627-32-000 | 26 mm Elite™ Modular Head +3 |

| | |
|---|---|
| 9625-72-000 | 28 mm Elite™ Modular Head - 3 |
| 9625-73-000 | 28 mm Elite™ Modular Head +0 |
| 9627-34-000 | 28 mm Elite™ Modular Head +3 |
| 9627-47-000 | 28 mm Elite™ Modular Head +6 |

| | |
|---|---|
| 9625-74-000 | 32 mm Elite™ Modular Head - 3 |
| 9625-75-000 | 32 mm Elite™ Modular Head +0 |
| 9627-35-000 | 32 mm Elite™ Modular Head +3 |

| | |
|---|---|
| 9621-73-000 | 28 mm Elite™ Alumina Ceramic Head - 3 |
| 9621-74-000 | 28 mm Elite™ Alumina Ceramic Head +0 |

**22.225 mm 9/10 Ceramax™ Head**

| | |
|---|---|
| 1365-22-110 | 22.225 mm 9/10 Ceramax™ Head Neck Length - 3 |
| 1365-22-120 | 22.225 mm 9/10 Ceramax™ Head Neck Length +0* |

(*) Note: Must not be used with CoCr Tapers

**28 mm 9/10 Ceramax™ Head**

| | |
|---|---|
| 1365-28-110 | 28 mm 9/10 Ceramax™ Head Neck Length - 3 |
| 1365-28-120 | 28 mm 9/10 Ceramax™ Head Neck Length +0 |
| 1365-28-130 | 28 mm 9/10 Ceramax™ Head Neck Length +3 |

**32 mm 9/10 Ceramax™ Head**

| | |
|---|---|
| 1365-32-110 | 32 mm 9/10 Ceramax™ Head Neck Length - 3 |
| 1365-32-120 | 32 mm 9/10 Ceramax™ Head Neck Length +0 |
| 1365-32-130 | 32 mm 9/10 Ceramax™ Head Neck Length +3 |

**36 mm 9/10 Ceramax™ Head**

| | |
|---|---|
| 1365-36-110 | 36 mm 9/10 Ceramax™ Head Neck Length - 3 |
| 1365-36-120 | 36 mm 9/10 Ceramax™ Head Neck Length +0 |
| 1365-36-130 | 36 mm 9/10 Ceramax™ Head Neck Length +3 |

# Ordering Information - C-Stem™

**28 mm 9/10 Ultamet™ Head**

| | |
|---|---|
| 9627-00-100 | 28 mm 9/10 Ultamet™ Head Neck Length - 3 |
| 9627-01-100 | 28 mm 9/10 Ultamet™ Head Neck Length +0 |
| 9627-02-100 | 28 mm 9/10 Ultamet™ Head Neck Length +3 |
| 9627-03-100 | 28 mm 9/10 Ultamet™ Head Neck Length +6 |

**36 mm 9/10 Ultamet™ Head**

| | |
|---|---|
| 9627-10-000 | 36 mm 9/10 Ultamet™ Head Neck Length - 3 |
| 9627-11-000 | 36 mm 9/10 Ultamet™ Head Neck Length +0 |
| 9627-12-000 | 36 mm 9/10 Ultamet™ Head Neck Length +3 |
| 9627-13-000 | 36 mm 9/10 Ultamet™ Head Neck Length +6 |

For Complete Code Listings for Pinnacle™ please use 9080-10-000 Pinnacle™ Reference Guide

**C-Stem™ Cement Restrictor Kit**

| | |
|---|---|
| 5460-02-000 | Cement Restrictor Inserter |

| | |
|---|---|
| 5460-30-000 | Cement Restrictor Trial 1 |
| 5460-32-000 | Cement Restrictor Trial 2 |
| 5460-34-000 | Cement Restrictor Trial 3 |
| 5460-36-000 | Cement Restrictor Trial 4 |
| 5460-38-000 | Cement Restrictor Trial 5 |
| 5460-40-000 | Cement Restrictor Trial 6 |
| 5460-42-000 | Cement Restrictor Trial 7 |

**End Caps & Centralisers**

| | |
|---|---|
| 9612-21-000 | C-Stem™ End Cap (Resorbable) |
| 9612-26-000 | C-Stem™ End Cap (PMMA) |

**Void Centralisers**

| | |
|---|---|
| 9612-10-500 | C-Stem™ Void Centraliser Size 10 |
| 9612-12-500 | C-Stem™ Void Centraliser Size 12 |
| 9612-14-500 | C-Stem™ Void Centraliser Size 14 |
| 9612-16-500 | C-Stem™ Void Centraliser Size 16 |
| 9612-18-500 | C-Stem™ Void Centraliser Size 18 |
| 9612-20-500 | C-Stem™ Void Centraliser Size 20 |

**Cemvac® Vacuum Mixing System**

Hardware

| | |
|---|---|
| 831401 | DePuy Multi-Pressure Vacuum Pump |
| 3210031 | International Air Hose |
| 831202 | Syringe Holder |
| 831205 | Cemvac® 1 Piece Gun |
| 3210016 | Nozzle Cutter |

**Disposables**

| | |
|---|---|
| 831215 | Single Syringe Set (Box 20 x 1 single sterile pack) |
| 831220 | Double Syringe Set (Box 10 x 2 double sterile pack) |
| 831230 | Revision Nozzle (8.5 mm x 5) |
| 831231 | Revision Nozzle (6.5 mm x 5) |
| 831234 | Nozzle Adaptor 90 Degree (x 5) |
| 831235 | Tibial Bone Applicator (x 5) |

**CMW® Bone Cements**

| | |
|---|---|
| 3102040 | SmartSet® MV Medium Viscosity Bone Cement 40g |
| 3092040 | SmartSet® HV High Viscosity Bone Cement 40g |

**CMW® Gentamicin Antibiotic Bone Cements**

| | |
|---|---|
| 3105040 | SmartSet® GMV Medium Viscosity Gentamicin Bone Cement 40g |
| 3095040 | SmartSet® GHV High Viscosity Gentamicin Bone Cement 40g |

# Ordering Information - C-Stem™ AMT

**C-stem™ AMT Core Instrument Kit**

| | |
|---|---|
| 2580-00-010 | C-Stem™ AMT Broach Size 1 |
| 2580-00-011 | C-stem™ AMT Broach Size 2 |
| 2580-00-012 | C-stem™ AMT Broach Size 3 |
| 2580-00-013 | C-stem™ AMT Broach Size 4 |
| 2580-00-014 | C-stem™ AMT Broach Size 5 |
| 2580-00-015 | C-stem™ AMT Broach Size 6 |
| 2580-00-016 | C-stem™ AMT Broach Size 7 |
| 2580-00-017 | C-stem™ AMT Broach Size 8 |
| 2580-00-060 | C-stem™ AMT Tray-femoral Prep |
| 2580-00-061 | C-stem™ AMT Tray-broaches |
| 2580-00-056 | C-stem™ AMT X-ray Templates |
| 2570-01-600 | Summit™ Univ Neck Res Guide |

| | |
|---|---|
| 2522-00-502 | Stem Introducer |
| 2570-00-000 | Summit™ Universal Broach Handle |
| 2570-00-002 | Summit™ Broach Extractor |
| 2570-00-005 | Summit™ Lateraliser |

| | |
|---|---|
| 2001-65-000 | Excel™ Femoral Head Impactor |
| 853927 | P.F.C.® Femoral Rasp |
| 854673 | Box Osteotome |

| | |
|---|---|
| 2002-25-000 | Anteversion Osteotome Medium |
| 853928 | P.F.C.® Broach Hand Align Rod |

| | |
|---|---|
| 2354-10-000 | Muller Awl Reamer W/Hudson End |
| 2570-20-000 | Canal Sizers Size 8-9 |
| 2570-21-000 | Canal Sizers Size 10 -11 |
| 2570-22-000 | Canal Sizers Size 12-13 |
| 2570-23-000 | Canal Sizers Size 14-15 |
| 2570-24-000 | Canal Sizers Size 16-17 |
| 2001-80-501 | IM Initiator Sized |

| | |
|---|---|
| 2570-03-000 | Summit™ Size 0/1 Standard Neck Segment |
| 2570-03-050 | Summit™ Size 0/1 Hi Neck Segment |
| 2570-03-100 | Summit™ Size 2/3 Standard Neck Segment |
| 2570-03-150 | Summit™ Size 2/3 Hi Neck Segment |
| 2570-03-200 | Summit™ Size 4/5 Standard Neck Segment |
| 2570-03-250 | Summit™ Size 4/5 Hi Neck Segment |
| 2570-03-300 | Summit™ Size 6/7 Standard Neck Segment |
| 2570-03-350 | Summit™ Size 6/7 Hi Neck Segment |
| 2570-03-400 | Summit™ Size 8/9 Standard Neck Segment |
| 2570-03-450 | Summit™ Size 8/9 Hi Neck Segment |

| | |
|---|---|
| 200142000 | Excel™ T-Handle |

**C-Stem™ to C-Stem™ AMT Conversion Kit**

| | |
|---|---|
| 2580-00-045 | C-Stem™ To AMT Hi Neck Sg 1 |
| 2580-00-046 | C-Stem™ To AMT Hi Neck Sg 2 |
| 2580-00-047 | C-Stem™ To AMT Hi Neck Sg 3 |
| 2580-00-048 | C-Stem™ To AMT Hi Neck Sg 4 |
| 2580-00-049 | C-Stem™ To AMT Hi Neck Sg 5 |
| 2580-00-050 | C-Stem™ To AMT Hi Neck Sg 6 |
| 2580-00-051 | C-Stem™ To AMT Hi Neck Sg 7 |
| 2580-00-052 | C-Stem™ To AMT Hi Neck Sg 8 |
| 2580-00-034 | C-Stem™ To AMT Standard Neck Sg 1 |
| 2580-00-035 | C-Stem™ To AMT Standard Neck Sg 2 |
| 2580-00-036 | C-Stem™ To AMT Standard Neck Sg 3 |
| 2580-00-037 | C-Stem™ To AMT Standard Neck Sg 4 |
| 2580-00-038 | C-Stem™ To AMT Standard Neck Sg 5 |
| 2580-00-039 | C-Stem™ To AMT Standard Neck Sg 6 |
| 2580-00-040 | C-Stem™ To AMT Standard Neck Sg 7 |
| 2580-00-041 | C-Stem™ To AMT Standard Neck Sg 8 |
| 2580-00-056 | C-Stem™ AMT X-ray Templates |
| 2580-00-059 | C-Stem™ To AMT Conversion Kit |
| 2570-20-000 | Canal Sizers Size 8-9 |
| 2570-21-000 | Canal Sizers Size 10 -11 |
| 2570-22-000 | Canal Sizers Size 12-13 |
| 2570-23-000 | Canal Sizers Size 14-15 |
| 2570-24-000 | Canal Sizers Size 16-17 |
| 2570-00-005 | Summit™ Lateraliser |
| 2570-01-600 | Summit™ Univ Neck Res Guide |

# Ordering Information - C-Stem™ AMT

**Summit™ to C-Stem™ AMT Conversion Kit**

| | |
|---|---|
| 2580-00-010 | C-Stem™ AMT Broach Size 1 |
| 2580-00-011 | C-Stem™ AMT Broach Size 2 |
| 2580-00-012 | C-Stem™ AMT Broach Size 3 |
| 2580-00-013 | C-Stem™ AMT Broach Size 4 |
| 2580-00-014 | C-Stem™ AMT Broach Size 5 |
| 2580-00-015 | C-Stem™ AMT Broach Size 6 |
| 2580-00-016 | C-Stem™ AMT Broach Size 7 |
| 2580-00-017 | C-Stem™ AMT Broach Size 8 |
| 2580-00-058 | C-Stem™ AMT Broach Instrument Tray |
| 2580-00-056 | C-Stem™ AMT X-ray Templates |

| | |
|---|---|
| 2522-00-502 | Stem Introducer |

**Articul/eze® Trial Heads 22.225 mm**

| | |
|---|---|
| 2530-69-000 | Articul/eze® Trial Head 22.225 +4 |
| 2530-70-000 | Articul/eze® Trial Head 22.225 +7 |

**Articul/eze® 12/14 Trial Heads 26 mm**

| | |
|---|---|
| 2530-71-000 | Articul/eze® Trial Head 26 +4 |
| 2530-72-000 | Articul/eze® Trial Head 26 +7 |
| 2530-73-000 | Articul/eze® Trial Head 26 +10 |

**Articul/eze® 12/14 Trial Heads 28 mm**

| | |
|---|---|
| 2530-81-000 | Articul/eze® Trial Head 28 +1.5 |
| 2530-82-000 | Articul/eze® Trial Head 28 +5 |
| 2530-83-000 | Articul/eze® Trial Head 28 +8.5 |
| 2530-84-000 | Articul/eze® Trial Head 28 +12 |
| 2530-85-000 | Articul/eze® Trial Head 28 +15.5 |

**Articul/eze® 12/14 Trial Heads 32 mm**

| | |
|---|---|
| 2530-91-000 | Articul/eze® Trial Head 32 +1 |
| 2530-92-000 | Articul/eze® Trial Head 32 +5 |
| 2530-93-000 | Articul/eze® Trial Head 32 +9 |
| 2530-94-000 | Articul/eze® Trial Head 32 +13 |
| 2530-95-000 | Articul/eze® Trial Head 32 +17 |

### Articul/eze® 12/14 Trial Heads 36 mm

| | |
|---|---|
| 2531-50-000 | Articul/eze® Trial Head 36 -2 |
| 2531-51-000 | Articul/eze® Trial Head 36 +1.5 |
| 2531-52-000 | Articul/eze® Trial Head 36 +5 |
| 2531-53-000 | Articul/eze® Trial Head 36 +8.5 |
| 2531-54-000 | Articul/eze® Trial Head 36 +12 |

### C-Stem™ AMT Femoral Implants

| | |
|---|---|
| | C-Stem™ AMT Size 1 Standard Offset |
| 1570-04-085 | C-Stem™ AMT Size 2 Standard Offset |
| 1570-04-090 | C-Stem™ AMT Size 3 Standard Offset |
| 1570-04-100 | C-Stem™ AMT Size 4 Standard Offset |
| 1570-04-110 | C-Stem™ AMT Size 5 Standard Offset |
| 1570-04-120 | C-Stem™ AMT Size 6 Standard Offset |
| 1570-04-135 | C-Stem™ AMT Size 7 Standard Offset |
| 1570-04-150 | C-Stem™ AMT Size 8 Standard Offset |

| | |
|---|---|
| 1570-14-070 | C-Stem™ AMT Size 1 High Offset |
| 1570-14-085 | C-Stem™ AMT Size 2 High Offset |
| 1570-14-090 | C-Stem™ AMT Size 3 High Offset |
| 1570-14-100 | C-Stem™ AMT Size 4 High Offset |
| 1570-14-110 | C-Stem™ AMT Size 5 High Offset |
| 1570-14-120 | C-Stem™ AMT Size 6 High Offset |
| 1570-14-135 | C-Stem™ AMT Size 7 High Offset |
| 1570-14-150 | C-Stem™ AMT Size 8 High Offset |

### Articul/eze® 12/14 Biolox® Delta Head 28 mm

| | |
|---|---|
| 1365-28-310 | 28 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +1.5 |
| 1365-28-320 | 28 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +5 |
| 1365-28-330 | 28 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +8.5 |

### Articul/eze® 12/14 Biolox® Delta Head 32 mm

| | |
|---|---|
| 1365-32-310 | 32 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +1 |
| 1365-32-320 | 32 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +5 |
| 1365-32-330 | 32 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +9 |

### Articul/eze® 12/14 Biolox® Delta Head 36 mm

| | |
|---|---|
| 1365-36-310 | 36 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +1.5 |
| 1365-36-320 | 36 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +5 |
| 1365-36-330 | 36 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +8.5 |
| 1365-36-340 | 36 mm 12/14 Articul/eze® Biolox® Delta Head Neck Length +12 |

# Ordering Information - C-Stem™ AMT

**Articul/eze® 12/14 Ultamet™ Head 28 mm**

| | |
|---|---|
| 1365-11-500 | 28 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +1.5 |
| 1365-12-500 | 28 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +5 |
| 1365-13-500 | 28 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +8.5 |

**Articul/eze® 12/14 Ultamet™ Head 36 mm**

| | |
|---|---|
| 1365-50-000 | 36 mm 12/14 Articul/eze® Ultamet™ Head Neck Length -2 |
| 1365-51-000 | 36 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +1.5 |
| 1365-52-000 | 36 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +5 |
| 1365-53-000 | 36 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +8.5 |
| 1365-54-000 | 36 mm 12/14 Articul/eze® Ultamet™ Head Neck Length +12 |

For Complete Code Listings for Pinnacle™ please use 9080-10-000 Pinnacle™ Reference Guide

**Modular Heads**

| | |
|---|---|
| 9998-90-139 | ASR™ Uni Femoral Implant Size 39 |
| 9998-90-141 | ASR™ Uni Femoral Implant Size 41 |
| 9998-90-143 | ASR™ Uni Femoral Implant Size 43 |
| 9998-90-145 | ASR™ Uni Femoral Implant Size 45 |
| 9998-90-146 | ASR™ Uni Femoral Implant Size 46 |
| 9998-90-147 | ASR™ Uni Femoral Implant Size 47 |
| 9998-90-149 | ASR™ Uni Femoral Implant Size 49 |
| 9998-90-151 | ASR™ Uni Femoral Implant Size 51 |
| 9998-90-153 | ASR™ Uni Femoral Implant Size 53 |
| 9998-90-155 | ASR™ Uni Femoral Implant Size 55 |
| 9998-90-157 | ASR™ Uni Femoral Implant Size 57 |
| 9998-90-159 | ASR™ Uni Femoral Implant Size 59 |
| 9998-90-161 | ASR™ Uni Femoral Implant Size 61 |
| 9998-90-163 | ASR™ Uni Femoral Implant Size 63 |

**ASR™ Tapered Sleeve Adaptor**

| | |
|---|---|
| 9998-00-102 | ASR™ Tapered Sleeve Adaptor 12/14 +2 |
| 9998-00-105 | ASR™ Tapered Sleeve Adaptor 12/14 +5 |
| 9998-00-108 | ASR™ Tapered Sleeve Adaptor 12/14 +8 |
| 9998-00-300 | ASR™ Tapered Sleeve Adaptor 9/10 +0 |
| 9998-00-303 | ASR™ Tapered Sleeve Adaptor 9/10 +3 |
| 9998-00-313 | ASR™ Tapered Sleeve Adaptor 9/10 -2 |

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