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The Right Choice

Exeter™

total hip system

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Anatomic Reconstruction

- The objectives of total hip replacement are to:
  - relieve pain
  - increase mobility and function

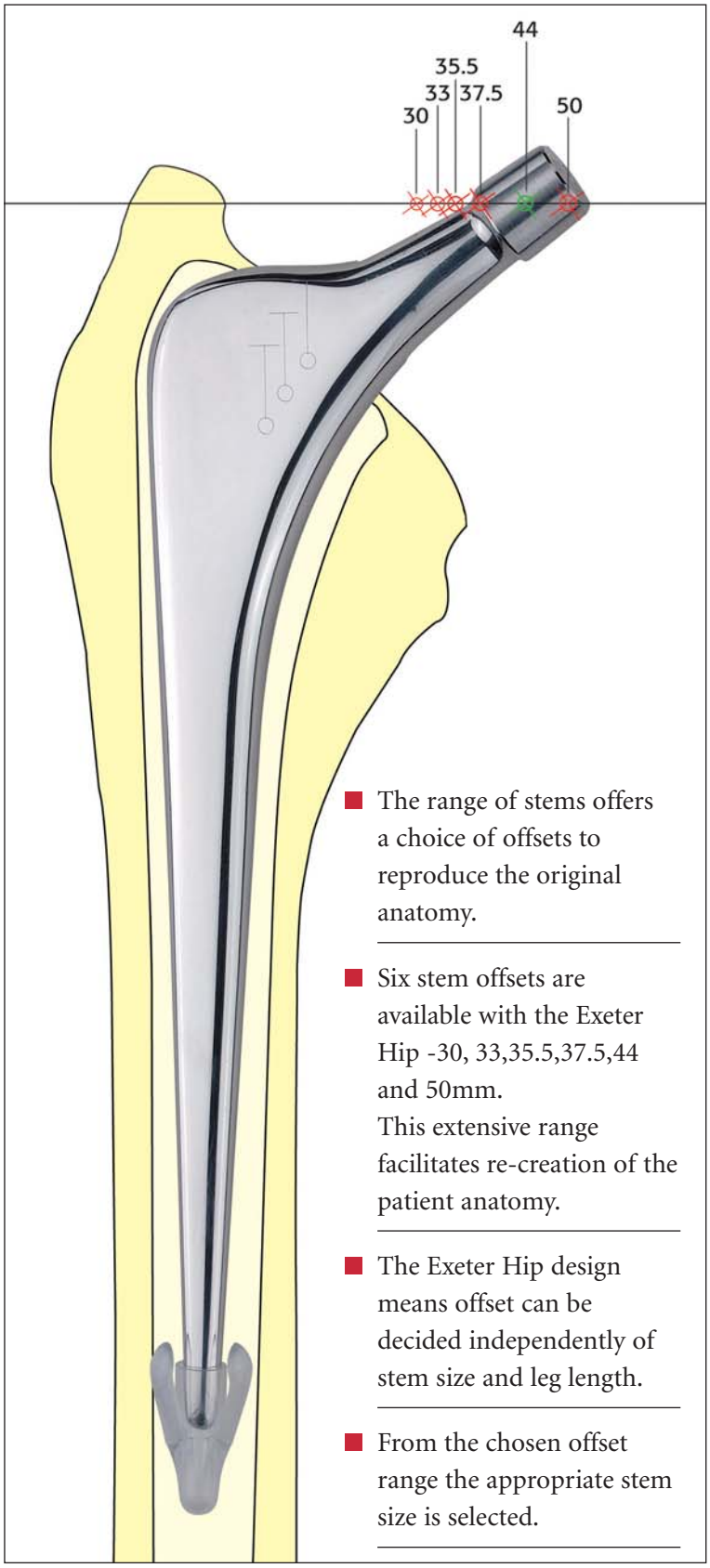
- Achieving a correct anatomic reconstruction maximises these objectives.

- The unique design of the Exeter Hip greatly assists the correct restoration of the patient's original anatomy through the ability to alter intra-operatively:
  - Leg length
  - Offset
  - Stem version

  Each of these variables is independent of the others.

- In order to minimise the risk of dislocation, different head size diameters may be used. Increasing the head size increases the range of motion arc and jump distance, reducing impingement and decreasing the risk of dislocation. 'Total hips with larger diameter heads are more resistant to dislocation[1].'

Offset



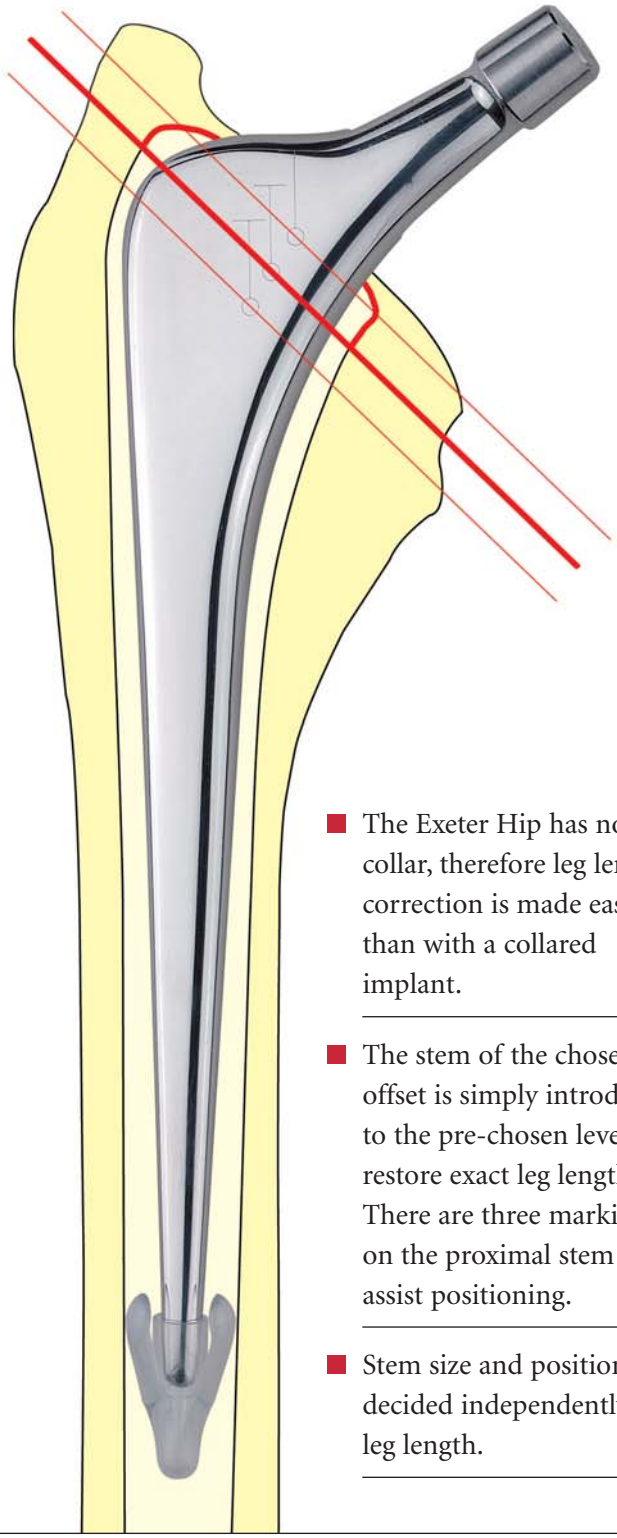
- The range of stems offers a choice of offsets to reproduce the original anatomy.

- Six stem offsets are available with the Exeter Hip -30, 33,35.5,37.5,44 and 50mm.
  This extensive range facilitates re-creation of the patient anatomy.

- The Exeter Hip design means offset can be decided independently of stem size and leg length.

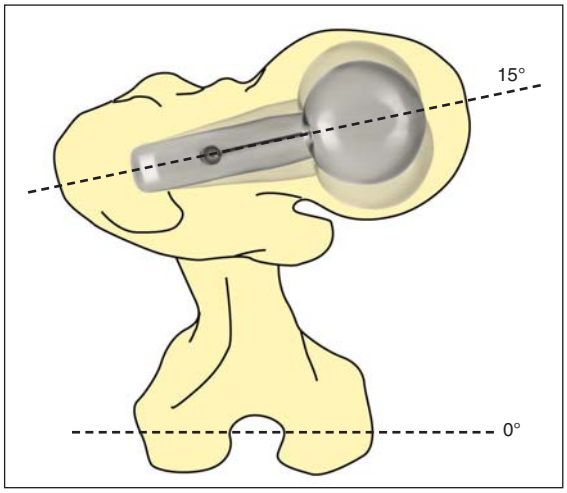
- From the chosen offset range the appropriate stem size is selected.

Leg Length



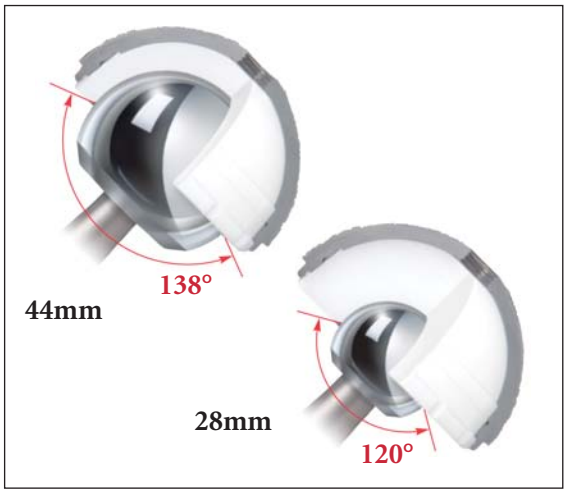
- The Exeter Hip has no collar, therefore leg length correction is made easier than with a collared implant.
- The stem of the chosen offset is simply introduced to the pre-chosen level to restore exact leg length. There are three markings on the proximal stem to assist positioning.
- Stem size and position are decided independently of leg length.

Stem Version



- The Exeter Hip may be implanted in natural anteversion(15 degrees) or in additional anteversion or retroversion if clinically indicated.
- As it is a cemented implant, the stem version can be changed intraoperatively during femoral preparation and/or final implantation.

Stability and Head Size



- Head sizes up to 44mm in diameter are available for use with a V40™ spigot, and may assist in reducing the rate of dislocation due to an increased range of motion and jump distance.

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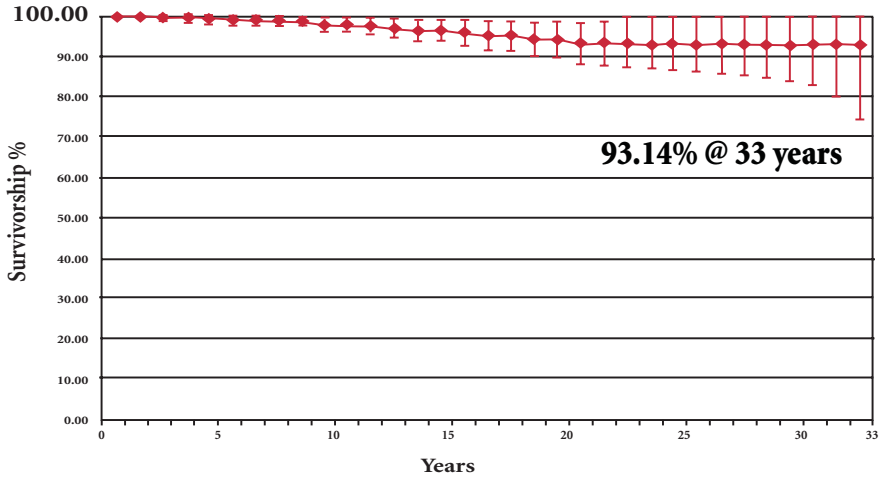
Clinical Success @ 33 Years

- From November 1970 to the end of 1975, the original 433 Exeter™ Hips were implanted at the Princess Elizabeth Orthopaedic Hospital, Exeter.

- The mean age at operation for the entire series was 66.8 years (range: 30-84 yrs.).

- From the 433 hips, with revision for aseptic stem loosening as the end-point, survivorship into the 33rd year of follow-up is 93.14%[2].



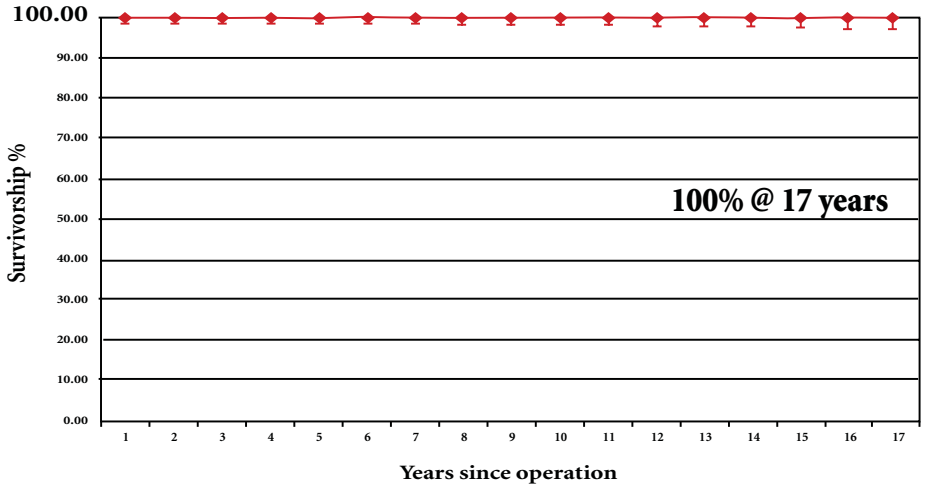
Original Exeter™ polished stems-
Survival rate to 33rd year with end-point revision for aseptic stem loosening: (percent)[2]

Clinical Success @ 17 Years

- At follow up at 17 years, survivorship with revision of the femoral component for aseptic loosening as the endpoint was 100%[3].

- No patients were lost to follow up. The fate of every implant was known.

- This was not a single surgeon series. The operations were undertaken by surgeons of widely differing experience.



Survivorship Curve for a series of 325 Exeter Universal Hips with the end point of reoperation for aseptic loosening[3]

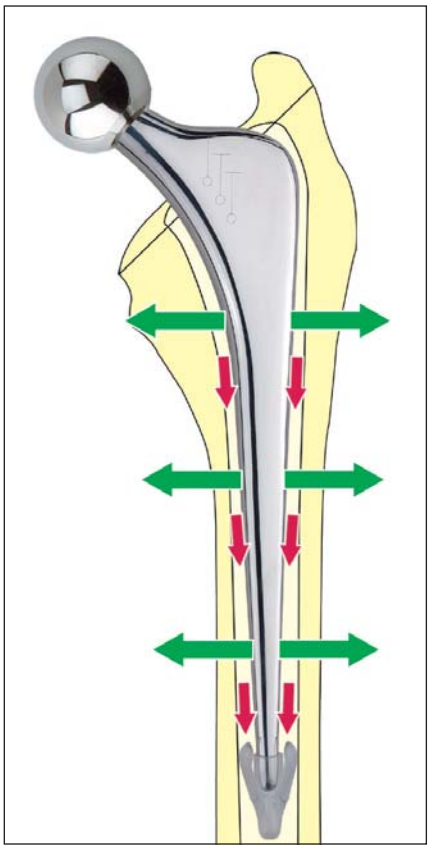
A successful design rationale

- The polished double tapered Exeter stem creates radial compressive loading as the predominant force, unlike a non-polished surface non tapered stem, which creates greater shear force as stem migrates distally.

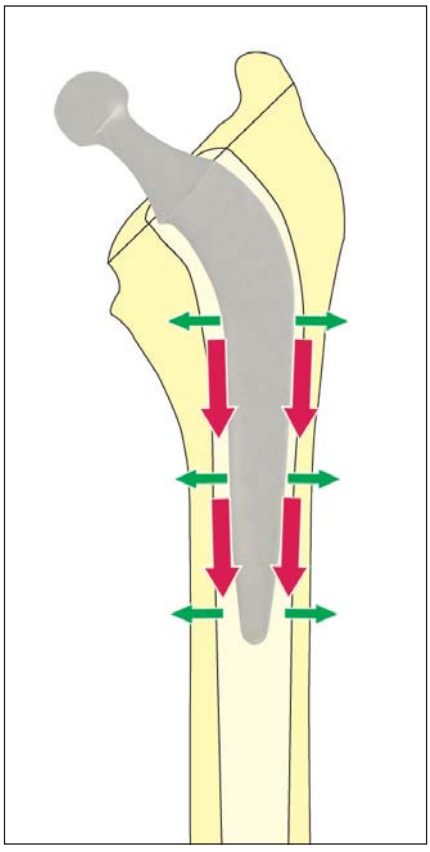
- With a rate of aseptic loosening of just 0.5% at 13-18 years[4] the success of the Exeter can be attributed to the 'taper slip principle' ie. the design and its surface finish allow subsidence to occur[5].

- Roentegen stereophotogrammetric analysis (RSA) has demonstrated distal stem migration at the cement-implant interface with the polished Exeter stem. The non-polished design migrated not only at the cement-implant interface, but also at the cement-bone interface. Migration at the cement-bone interface may interfere with fixation[6].

- RSA techniques have also demonstrated significant differences in rapid posterior head migration of the polished Exeter compared to that of a non-polished design. The subsidence of the polished, collarless, tapered stem within the cement mantle compresses the interfaces and renders them more able to resist shear forces generated by the posteriorly directed loads on the femoral head. Polished, collarless, tapered stems are more forgiving than conventional designs[7].



Polished



Non-Polished

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EXETER™ CUP ▶

CONTEMPORARY™
◀ HOODED CUP

EXETER™
CONTEMPORARY™
FLANGED CUP ▶

CEMENTED
CONSTRAINED CUP ▶

Acetabular Solutions

MITCH TRH™
- LARGE DIAMETER MODULAR HEAD
- RESURFACING CUP ▶

TRIDENT® HA COATED CUP X3™ LINER ▶

TRIDENT® HA COATED CUP - CERAMIC LINER ▼

ABG®II HA COATED CUP - CERAMIC LINER ▼

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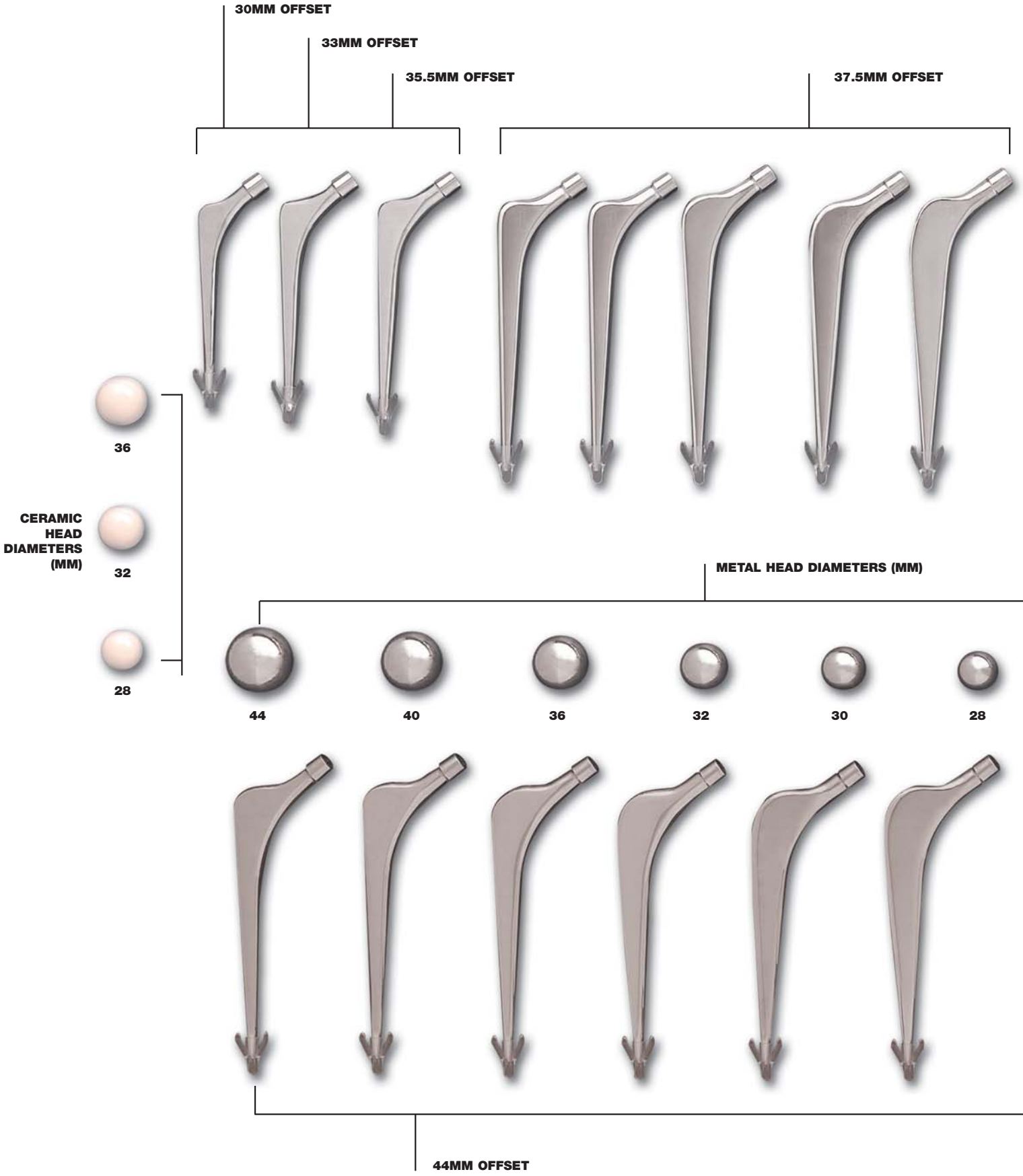


Femoral Solutions

SHORT REVISION STEM

44MM OFFSET

LONG STEM OPTION FULLY TAPERED

205MM
37.5MM OFFSET
44MM OFFSET

LONG STEM OPTIONS 44MM OFFSET

200MM
220MM
240MM
260MM

26 **22**

50MM OFFSET

X-change®

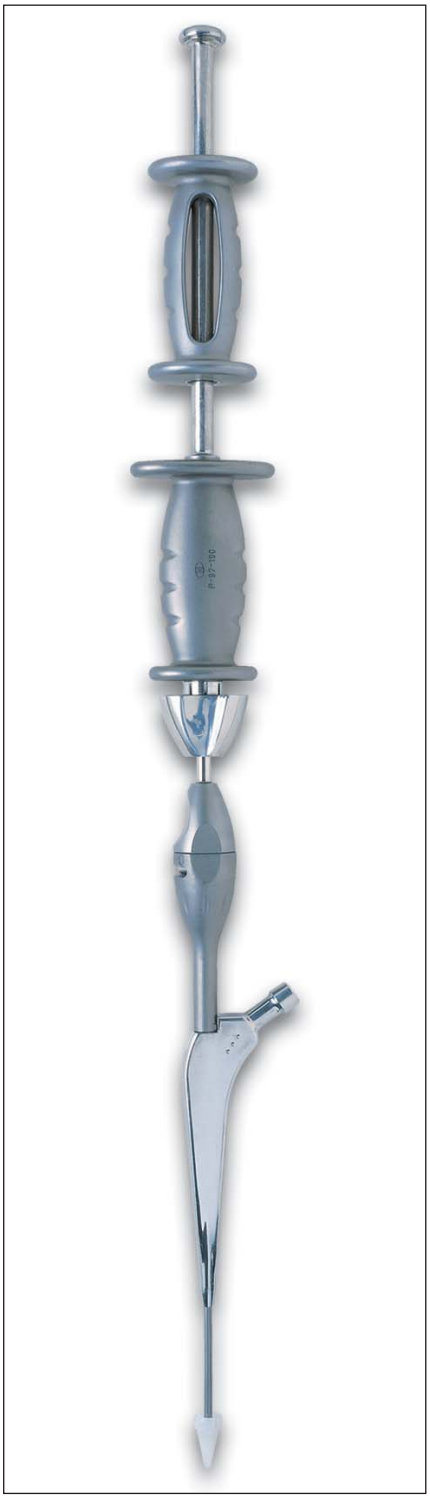
revision instruments system

- The X-change® Revision Instruments System is designed to restore bone stock using allograft allowing for:

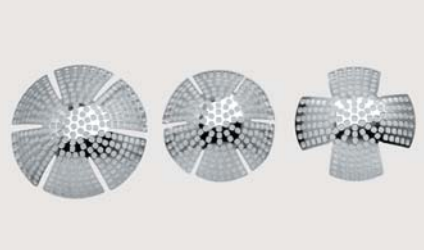
  - Controlled creation of tapered femoral cavity
  - Controlled creation of an acetabular cavity
  - Controlled creation of a complete cement mantle

- Histological evidence from post mortem studies in patients who have undergone impaction bone grafting suggest that a high proportion of the graft is replaced by living host bone with direct contact between new osteoid and acrylic cement, without the interposition of a soft tissue membrane.[8]

- The X-change system has been specifically designed for use with the EXETER™ Hip with a complete range of sophisticated femoral and acetabular instrumentation.



Revision



MEDIAL WALL MESH

'Petal' shaped design allows constraint of graft in the acetabulum. The petals may be cut to the required shape.

RIM MESH

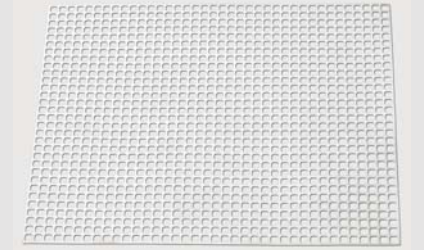
Three sizes are available to provide support for the rim of the acetabulum.

FEMORAL MESH

Enables the surgeon to provide additional strengthening to the femur prior to impaction grafting.

FEMORAL ANATOMIC MESH

Allows build-up of the calcar region. It is shaped to support the entire proximal femur.



FLAT MESH

May be used for any situation where bone needs to be supported. The mesh can be cut to the required size.

X-CHANGE® SCREWS

These self-tapping screws are available to fix the mesh to bone. There are six lengths (10 - 35mm).

All implants are manufactured in high grade stainless steel.

Clinical References

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Literature Number: EXEBR01E03
BEN16352/REF 07/07