

TaperFit™

Cemented Total Hip
Replacement

Surgical technique



Corin

Connected Orthopaedic Insight

Disclaimers

- Please refer to the instructions for use for further information
- Please also refer to the instructions for use or other labelling associated with the devices identified in this surgical technique for additional information.
- Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.
- The product images shown are for illustration purposes only and may not be an exact representation of the product.
- For more information on ordering of instruments specific to the product in scope, please contact your Corin representative.



TaperFit™

Design | History | Function



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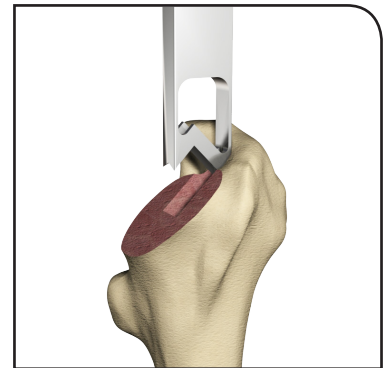
Description

The TaperFit™ Hip is a double tapered, polished, collarless stem designed to be implanted using bone cement. The TaperFit™ Stem is manufactured from high strength stainless steel (to ISO 5832-9) and is available in five sizes with three offset configurations: 38mm, 45mm and 50mm*. The TaperFit™ modular trunnion is compatible with a range of Corin cobalt chrome and ceramic** modular heads. An additional stem (CDH stem, 36mm offset) is included in the range for use in patients with developmental and congenital dysplasia of the hip.

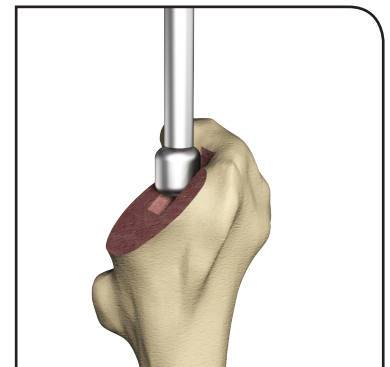
*Size 0 and 50mm offset stems not available in USA

**The TaperFit™ Stem is not cleared for use in the USA with the Trinity™ BIOLOX delta™ ceramic heads.

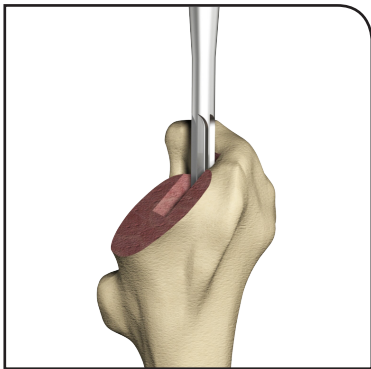
Operative summary



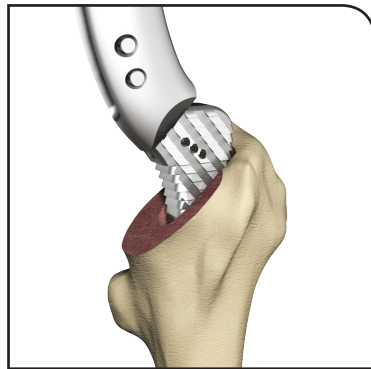
a. Femoral canal preparation



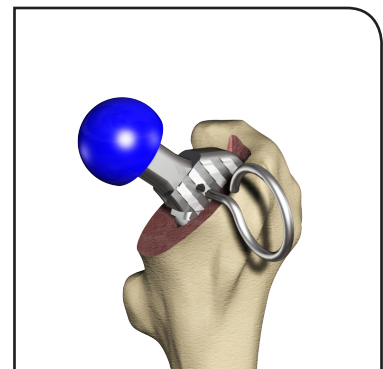
e. Restrictor sizing



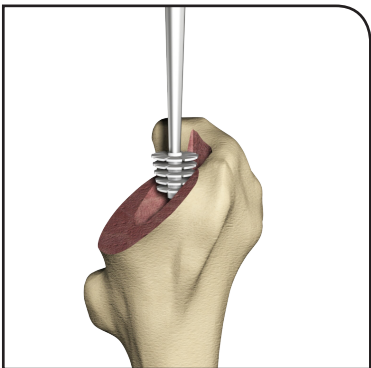
b. Tapered IM reaming



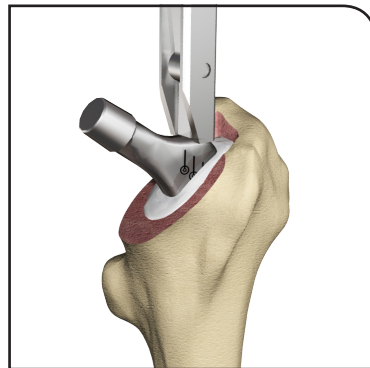
c. Rasping



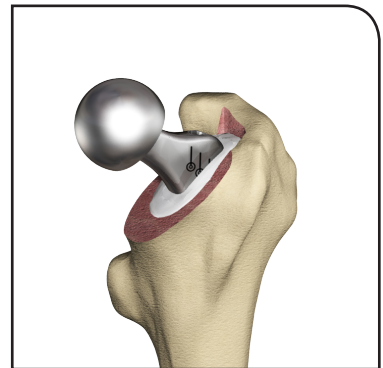
d. Trial reduction



f. Restrictor insertion

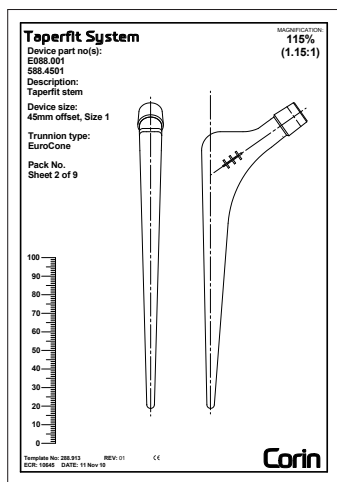


g. Stem implantation



h. Modular head insertion

Operative technique



1. Pre-operative planning

Pre-operative templating using the Corin X-ray templates provided allow the surgeon to identify the implant offset and sizes appropriate for the patient, and also to plan the position in which the components will be placed. Whilst templating, allowance must be made for a complete cement mantle for the chosen component.

2. Surgical exposure

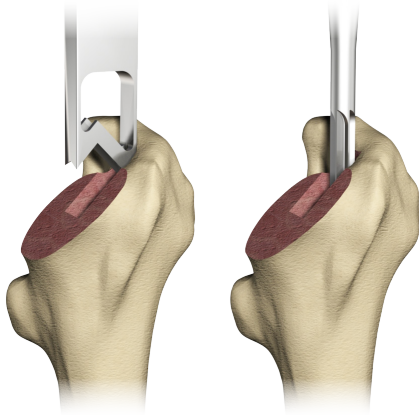
Full exposure of both the acetabulum and proximal femur are required to permit effective preparation and implantation.



3. Acetabular preparation

The acetabulum is prepared as instructed for the chosen Corin acetabular cup system.

TaperFit femoral preparation

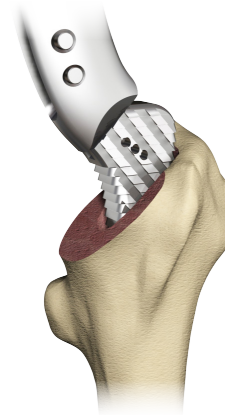


4. Opening the femur

The proximal femur is opened using the box osteotome ensuring that this is positioned laterally into the greater trochanter and with the appropriate anteversion.

5. Reaming the medullary canal

The medullary canal is identified and opened using the tapered reamer.



6. Rasping the medullary canal

The medullary canal is then rasped sequentially starting with the smallest rasp of appropriate offset until the rasp equivalent to the prosthesis chosen at templating is seated within the femur.

The rasp handle may be impacted directly using a mallet, or the slap hammer may be used to both impact and loosen the rasp.



7. Trial using rasp

Stability and fit are assessed and, if satisfactory, the rasp handle is removed. A trial neck is placed on the spigot, a standard trial modular head of appropriate diameter placed on the trial neck and a trial reduction carried out.

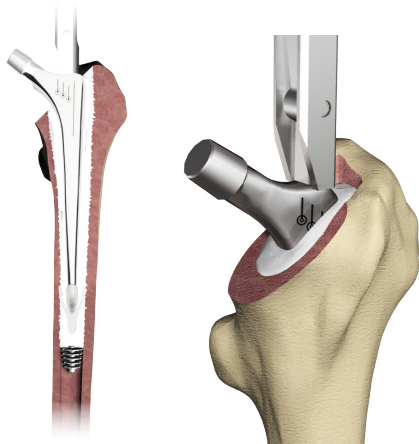
Long or short trial heads may be used if adjustment is necessary. The neck trials are suitable for use with all rasp offsets. A pin may be placed through the holes in the rasp to increase leg length and to maintain the rasp position within the femur whilst performing a trial reduction.



8. Restrictor sizing and insertion

The rasp is removed using the rasp handle and slap hammer or mallet. The Corin Restrictor Sizer is used to determine the required cement restrictor size. The Restrictor Sizer has markings at 10mm increments along the shaft to allow the restrictor size to be assessed at the right depth. The cement restrictor should sit at a minimum depth of 20mm distal to the stem tip. The Restrictor depth is 146mm for the CDH stem and 170mm for all other primary cemented TaperFit stems when measured from the shoulder of the stem. Aim for a firm fit of the sizer into the femoral canal.

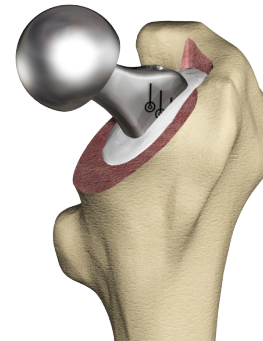
Place the chosen restrictor size onto the end of the introducer and push down into the femoral canal. The laser marks on the restrictor introducer (CDH/ 38,45,50) correspond to the required cement restrictor depth for those stems. These marks can be used to assess the final depth of the restrictor. Use these markers as the minimum depth, if not reaching the required depth, either re-ream or use a smaller size restrictor. The restrictor should fit firmly into the femoral canal.



9. Insertion of definitive femoral implant

The definitive implant is mounted onto the stem introducer and the stem centraliser placed on the distal tip. The stem is then pushed firmly into the bone cement until it reaches the level at which the rasp sat during the trial reduction (this may be checked by reference to the three marks on the implant).

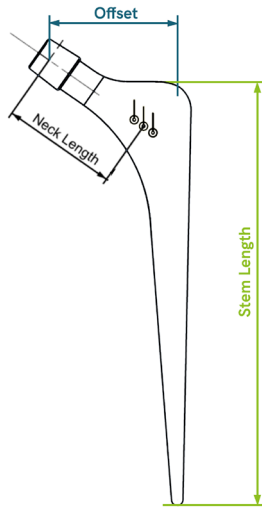
Pressure is applied, excess bone cement is removed, and the stem introducer detached from the stem when the cement has fully polymerised.



10. Modular head insertion

A further trial reduction may be carried out, using a trial head or a definitive modular head (matching the trial head used) is then securely placed onto the trunnion. The wound is then closed according to the surgeon's usual practice.

Sizing guide

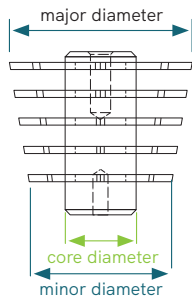


| | stem size | CDH |
|----------|------------------|-------|
| CDH stem | offset (mm) | 36.0 |
| | neck length (mm) | 35.9 |
| | stem length (mm) | 125.0 |

| | stem size | 0 | 1 | 2 | 3 | 4 |
|-------------------|------------------|-------|-------|-------|-------|-------|
| 38mm offset stems | offset (mm) | 38.0 | 38.0 | 38.0 | 38.0 | 38.0 |
| | neck length (mm) | 38.0 | 38.0 | 38.0 | 38.0 | 38.0 |
| | stem length (mm) | 149.0 | 149.0 | 149.0 | 149.0 | 149.0 |

| | | | | | | |
|-------------------|------------------|-------|-------|-------|-------|-------|
| 45mm offset stems | offset (mm) | 45.0 | 45.0 | 45.0 | 45.0 | 45.0 |
| | neck length (mm) | 40.5 | 40.5 | 40.5 | 40.5 | 40.5 |
| | stem length (mm) | 149.0 | 149.0 | 149.0 | 149.0 | 149.0 |

| | | | | | | |
|-------------------|------------------|-------|-------|-------|-------|-------|
| 50mm offset stems | offset (mm) | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| | neck length (mm) | 42.3 | 42.3 | 42.3 | 42.3 | 42.3 |
| | stem length (mm) | 149.0 | 149.0 | 149.0 | 149.0 | 149.0 |



| | restrictor size | 1 | 2 | 3 | 4 |
|--------------------|------------------------------|------------|-------------|-------------|-------------|
| cement restrictors | minor diameter (mm) | 10.0 | 14.0 | 18.0 | 22.0 |
| | major diameter (mm) | 14.0 | 18.0 | 22.0 | 26.0 |
| | core diameter (mm) | 4.0 | 7.0 | 11.0 | 15.0 |
| | IM size recommendations (mm) | 8 ≥ Ø < 12 | 12 ≥ Ø < 16 | 16 ≥ Ø < 20 | 20 ≥ Ø < 24 |

Ordering information

TaperFit™ femoral stem

Eurocone (12/14) options

| Product code | Size |
|--------------|--------------------|
| 588.3600 | 36mm offset CDH |
| 588.3800 | 38mm offset size 0 |
| 588.3801 | 38mm offset size 1 |
| 588.3802 | 38mm offset size 2 |
| 588.3803 | 38mm offset size 3 |
| 588.3804 | 38mm offset size 4 |
| 588.4500 | 45mm offset size 0 |
| 588.4501 | 45mm offset size 1 |
| 588.4502 | 45mm offset size 2 |
| 588.4503 | 45mm offset size 3 |
| 588.4504 | 45mm offset size 4 |
| 588.5000 | 50mm offset size 0 |
| 588.5001 | 50mm offset size 1 |
| 588.5002 | 50mm offset size 2 |
| 588.5003 | 50mm offset size 3 |
| 588.5004 | 50mm offset size 4 |



CoCr modular heads (12/14)

from the Trinity™ acetabular system

| Product code | Size | | |
|--------------|-------------|--------|------|
| E321.428 | Extra short | -5.0mm | 28mm |
| E321.432 | Extra short | -6.0mm | 32mm |
| E321.436 | Extra short | -8.0mm | 36mm |
| E321.440 | Extra short | -8.0mm | 40mm |
| E321.322 | Short | -2.0mm | 22mm |
| E321.028 | Short | -3.5mm | 28mm |
| E321.032 | Short | -4.0mm | 32mm |
| E321.036 | Short | -4.0mm | 36mm |
| E321.040 | Short | -4.0mm | 40mm |
| E321.022 | Medium | 0.0mm | 22mm |
| E321.128 | Medium | 0.0mm | 28mm |
| E321.132 | Medium | 0.0mm | 32mm |
| E321.136 | Medium | 0.0mm | 36mm |
| E321.140 | Medium | 0.0mm | 40mm |
| E321.122 | Long | +2.0mm | 22mm |
| E321.228 | Long | +3.5mm | 28mm |
| E321.232 | Long | +4.0mm | 32mm |
| E321.236 | Long | +4.0mm | 36mm |
| E321.240 | Long | +4.0mm | 40mm |
| E321.328 | Extra long | +7.0mm | 28mm |
| E321.332 | Extra long | +7.0mm | 32mm |
| E321.336 | Extra long | +8.0mm | 36mm |
| E321.340 | Extra long | +8.0mm | 40mm |



BILOX® delta ceramic modular heads (12/14)

from the Trinity™ acetabular system

| Product code | Size | | |
|--------------|------------|--------|------|
| 104.2800 | Short | -3.5mm | 28mm |
| 104.3200 | Short | -4.0mm | 32mm |
| 104.3600 | Short | -4.0mm | 36mm |
| 104.4000 | Short | -4.0mm | 40mm |
| 104.2805 | Medium | 0.0mm | 28mm |
| 104.3205 | Medium | 0.0mm | 32mm |
| 104.3605 | Medium | 0.0mm | 36mm |
| 104.4005 | Medium | 0.0mm | 40mm |
| 104.2810 | Long | +3.5mm | 28mm |
| 104.3210 | Long | +4.0mm | 32mm |
| 104.3610 | Long | +4.0mm | 36mm |
| 104.4010 | Long | +4.0mm | 40mm |
| 104.3215 | Extra long | +7.0mm | 32mm |
| 104.3615 | Extra long | +8.0mm | 36mm |
| 104.4015 | Extra long | +8.0mm | 40mm |



Centralisers and impaction grafting

| Product code | Description |
|--------------|----------------------------------------|
| 188.555 | TaperFit™ PMMA centraliser (pack of 5) |



Complementary products

| Product code | Description |
|--------------|---------------------------------------------|
| 174.600 | Hardinge femoral canal occluder (box of 10) |
| 279.000 | Canal occluder introducer |



Cement restrictors

| Product code | Description |
|--------------|--------------------------|
| 588.0001 | Cement restrictor size 1 |
| 588.0002 | Cement restrictor size 2 |
| 588.0003 | Cement restrictor size 3 |
| 588.0004 | Cement restrictor size 4 |



TaperFit™ x-ray templates

| Product code | Size |
|--------------|------|
| 288.911 | 100% |
| 288.912 | 110% |
| 288.913 | 115% |
| 288.914 | 120% |

Indications

- TaperFit™ Hip Stem is indicated for the relief of pain and restoration of hip function following the effects of femoral neck fracture, osteo, rheumatoid and inflammatory arthritis, post-traumatic disease effects, avascular necrosis and total hip revision.
- The TaperFit™ Hip Stem is indicated for hemi-arthroplasty when used in combination with Corin hemi-arthroplasty femoral heads.
- The TaperFit™ Hip Stem is indicated for cemented, single use only.

Contraindications

- Active infection
- Osteoporosis
- Marked bone loss or bone resorption
- Metabolic disorders which may impair bone formation
- Vascular insufficiency
- Muscular atrophy
- Neuromuscular disease

Please note:

- Not all products may currently be available in all markets.
- Refer to the instructions for use for a complete list of indications, contraindications, warnings, and precautions
- Refer to the package insert(s) or other labelling associated with the devices identified in this surgical technique for additional information.



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