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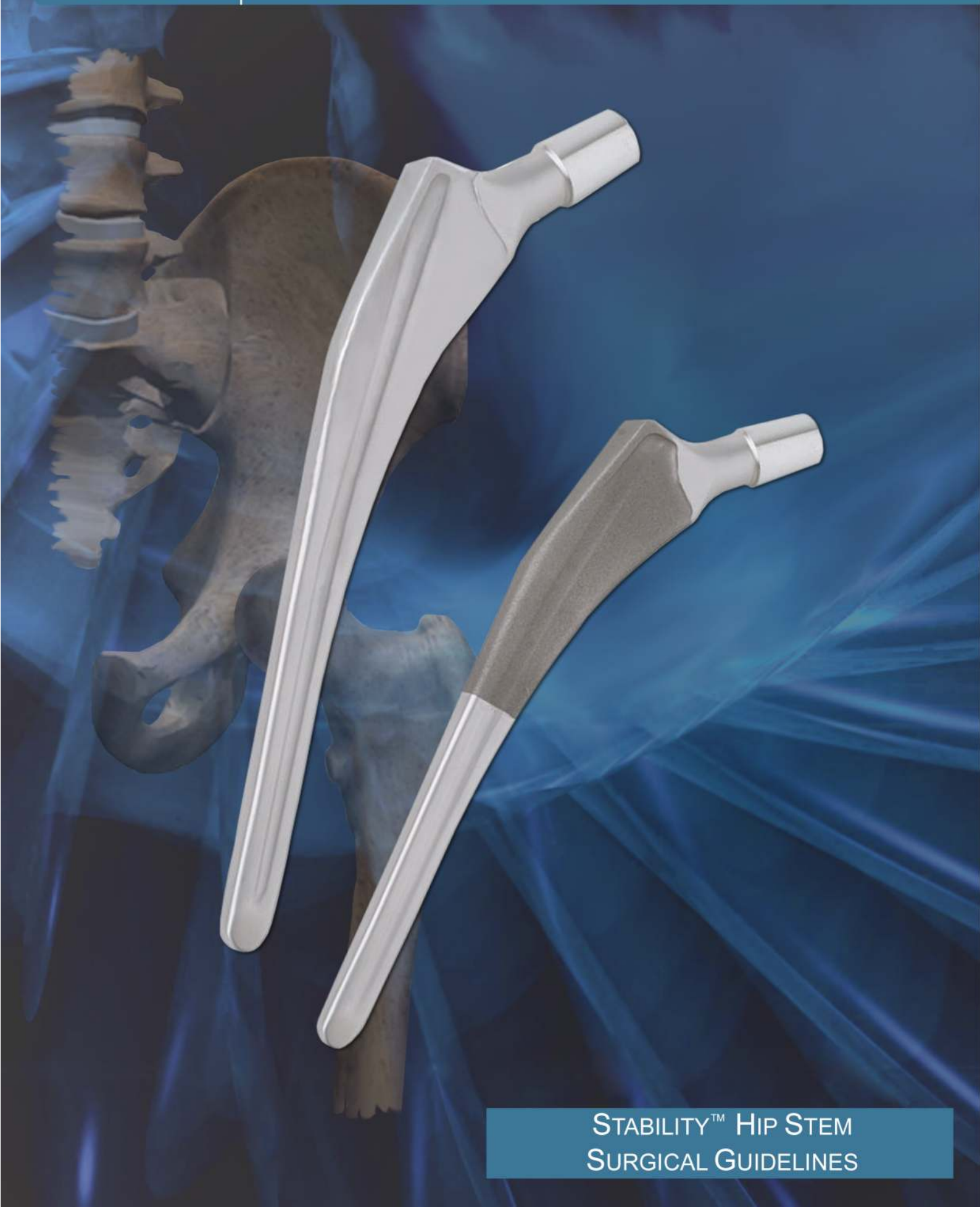
ARTHROPLASTY



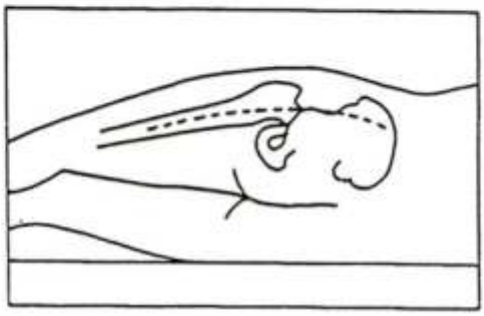
STABILITY™ HIP STEM
SURGICAL GUIDELINES

STABILITY ™ HIP SYSTEM
SURGICAL GUIDELINES

INTRODUCTION

Two procedures for both cemented (cr. co.) and uncemented (Ti) stems are detailed even though the technique is substantially similar in both instances. The rasps for the preparation of the medullary canal are the same for all models (cemented with or without collar, uncemented) and the choice of the stem can be made during the surgery after the bone broaching.
The Stability ™ stem may be implanted through the usual surgical approaches to the hip joint.
The following pictures refer to the postero-lateral approach.
The use of pre-operative templates is recommended in order to identify approximately the size of the stem.

SURGICAL GUIDELINES FOR CEMENTED STEMS

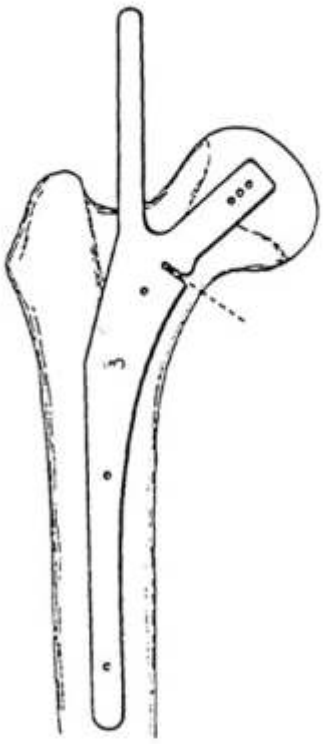


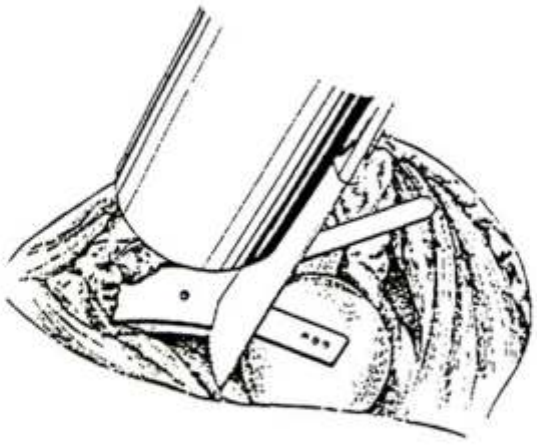
1. PREPARATION OF THE OPERATIVE FIELD

The patient is lying in a lateral position.
Postero-lateral incision.
After opening the *fascia lata* and detaching the lateral rotators, the joint cap is cut and the head of the femur dislocated posteriorly. The top of the head is then excised.

2. RESECTION OF THE FEMORAL HEAD

Remove the femoral head by transcervical resection, according to what planned pre-operatively, at a 40° angle with the axis of the femur. If the implant of a collared stem is planned, the use of the cervico-diaphyseal resection mask is suggested in order to spot the correct resection plane.
The mask is placed along the femoral axis, so that the center of the femoral head coincides with the central hole (it corresponds with a MEDIUM size head).

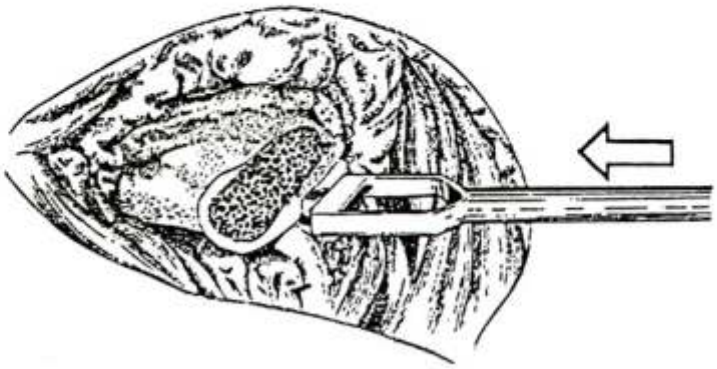


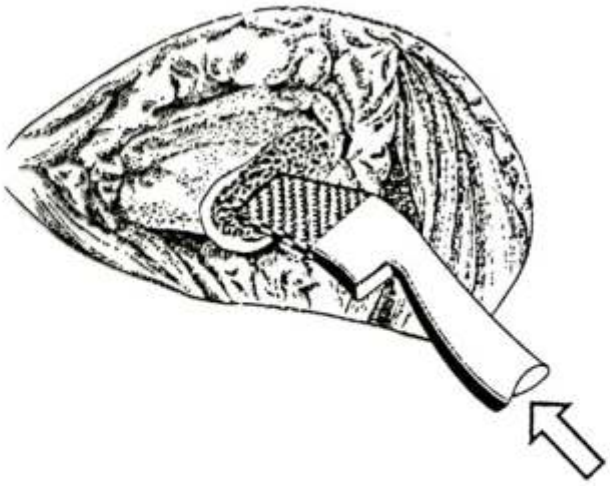


The resection occurs through the guide of the mask. In this phase it is not necessary taking too much care of the resection because this will be continued by means of the circular calcar reamer if a collared stem is planned.

3. PREPARATION OF THE MEDULLARY CANAL

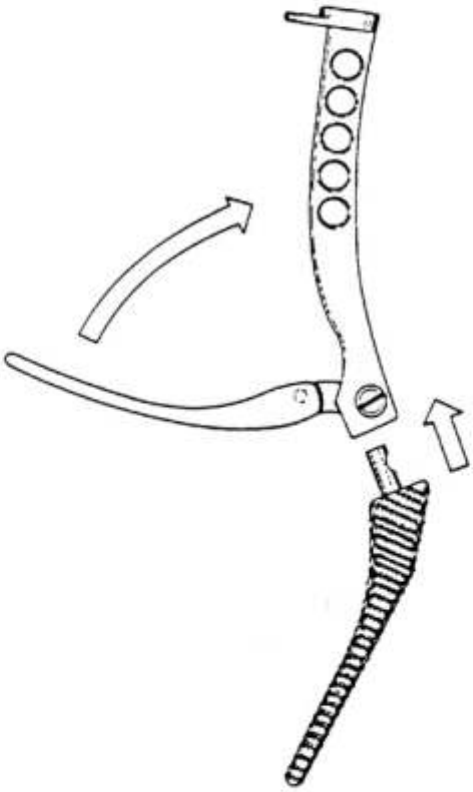
The diaphysis is punched by means of the chisel.



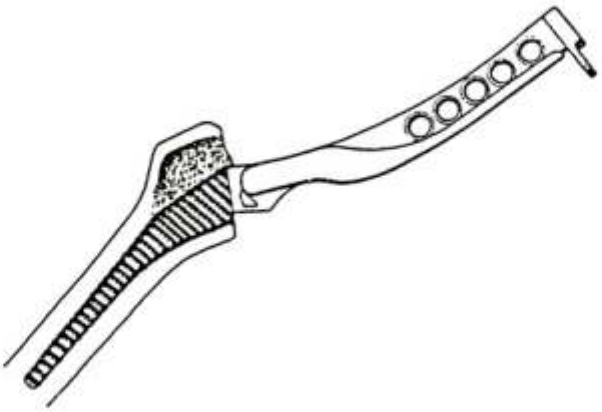


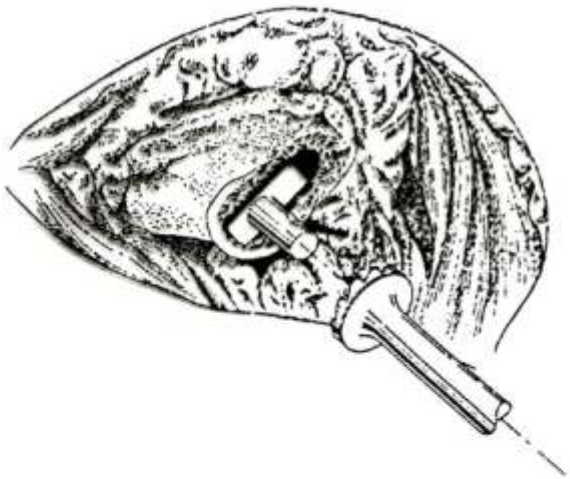
The preparation of the medullary canal begins with the solid rasps, starting with the smallest one and keeping the correct anti-version (ca. 15°). Continue up to feel resistance, then remove the solid rasp and go on with the modular ones.

Once defined the right size of the rasp (i.e. the stem size), open the hand lever of the handle and insert the modular rasp keeping the medial side towards the lever (see the picture). Clamp the lever to the end.
The solid rasps and the modular ones are identical, but the latter are used as support for the collar reamers and act also as trial prostheses.



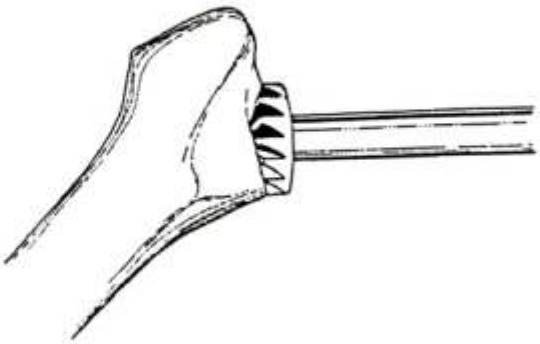
Complete the preparation of the prosthesis seating.
The rasp should pass the resection level so that the collar reamer may finish the collar seat on the calcar.
Open the lever and remove the handle leaving the rasp in the medullary canal.

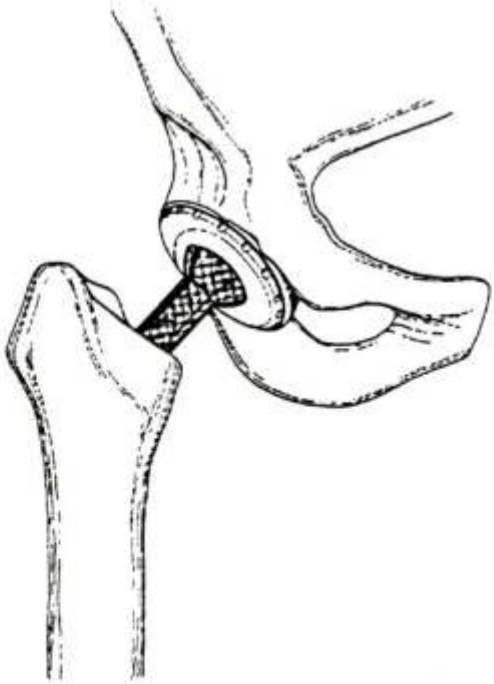




4. CALCAR FINISHING

If the implant of a collared stem is planned pitch the collar reamer onto the pin of the reamer and finish the bony surface.
Remove the collar reamer.



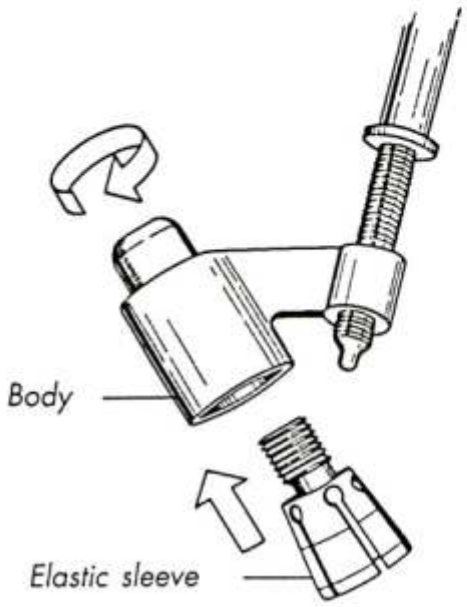


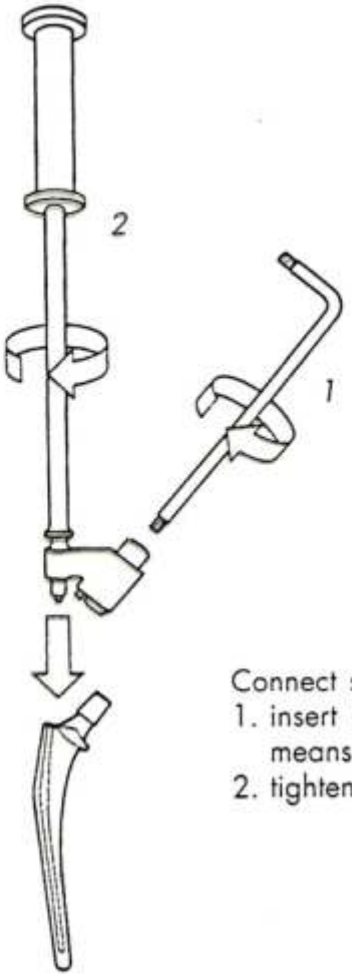
5. TRIAL REDUCTION

Keeping the rasp *in situ*, the determination of the head size is now possible.
Fit the trial heads (28 or 32 mm dia.) over the rasp trunnion and reduce the joint seating the head into the acetabular cup previously implanted. Choose the length of the femoral head to be used (S, M, L) testing the joint tension.
Remove the trial head and, by means of the handle, the rasp.

6. STEM PREPARATION

A special impactor-extractor is available to fit into the medullary canal the stem of the selected size which is as the same as the latest rasp used. According to the stem taper (12/14 or 14/16) tighten the corresponding elastic sleeve on the impactor-extractor body, without deforming the elastic sleeve.

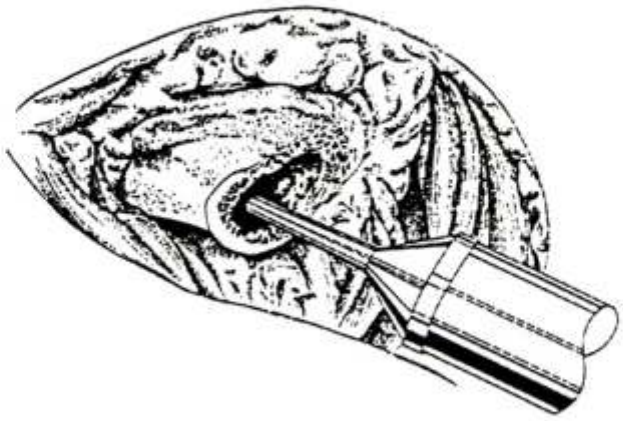




Connect stem and impactor-extractor as in the picture:
1. insert the taper into the elastic sleeve which is closed by means of the Allen wrench;
2. tighten the handle of the impactor-extractor.

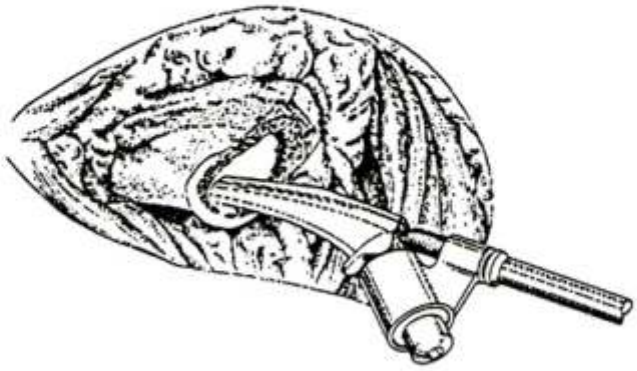
7. FILLING OF THE CEMENT

Acrylic cement is filled into the medullary canal.



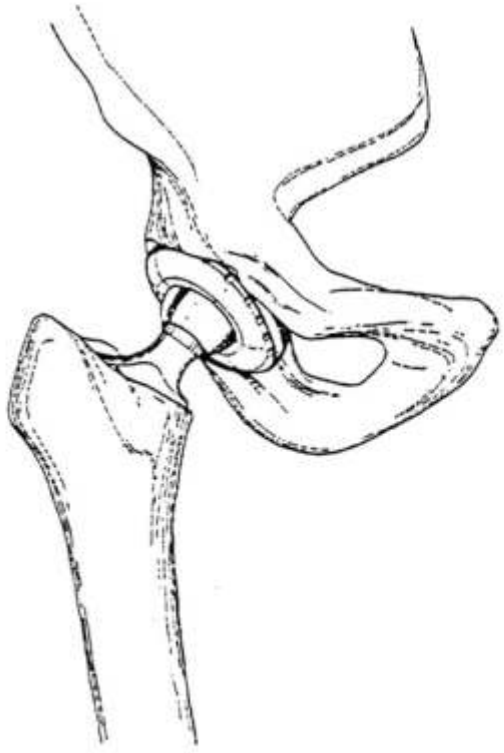
8. STEM INTRODUCTION

By means of the impactor-extractor insert the stem into the medullary canal and gently tap until prosthesis is fully seated.
Remove the impactor-extractor after the complete polymerization of the acrylic cement.



9. HEAD INSERTION

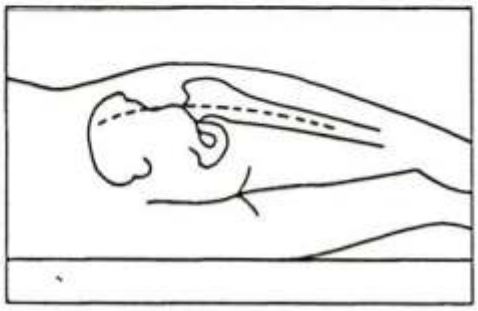
Verify with care the cleanness of the Morse tapers and fit the femoral head. A gentle axial tap with a plastic beater ensures the stability of the head-stem coupling.



10. FINAL REDUCTION

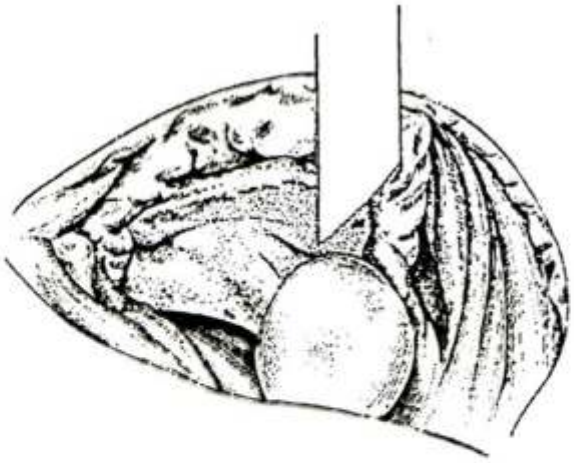
At the end verify the perfect cleanness of the sliding surfaces and definitively reduce the joint.

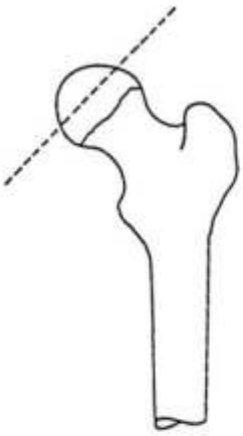
SURGICAL GUIDELINES FOR NON-CEMENTED STEMS



1. PREPARATION OF THE OPERATIVE FIELD

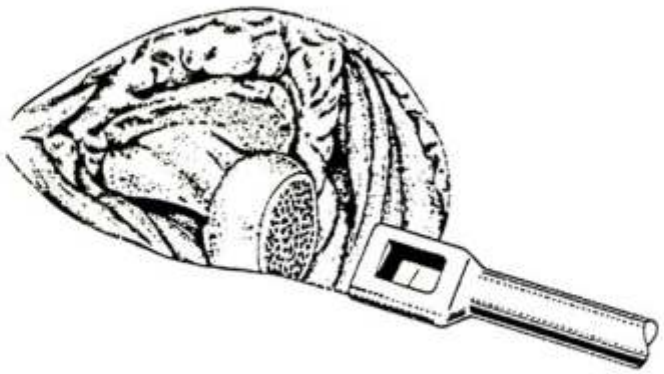
The patient is lying in a lateral position.
Postero-lateral incision.
After opening the *fascia lata* and detaching the lateral rotators, the joint cap is cut and the head of the femur dislocated posteriorly.
The top of the head is then cut.





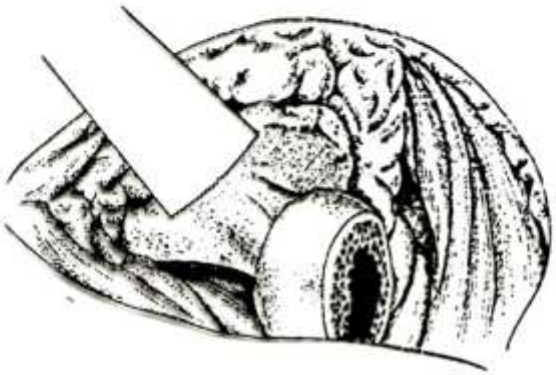
2. PREPARATION OF THE BONE GRAFT

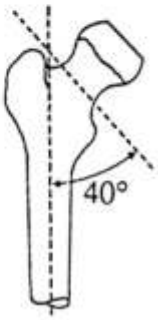
A cancellous bone graft to be plugged into the stem window is obtained by means of one of the two supplied chisels. When applying stem sizes 1, 2 or 3 the small-sized tool should be used, while the bigger one is required for stem sizes 4, 5 or 6.
Should the pre-operative planning leave any doubt as to the choice of stem size 3 or 4, it is recommended to prepare the bone graft, with the bigger tool.

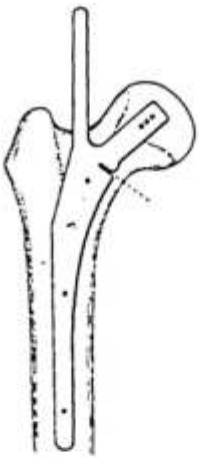


3. RESECTION OF THE FEMORAL HEAD

The head of the femur is removed by transcervical resection, according to what planned pre-operatively, at a 40° angle with the axis of the femur.



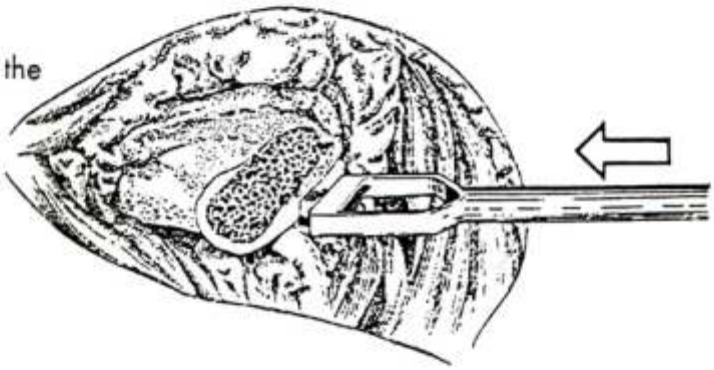


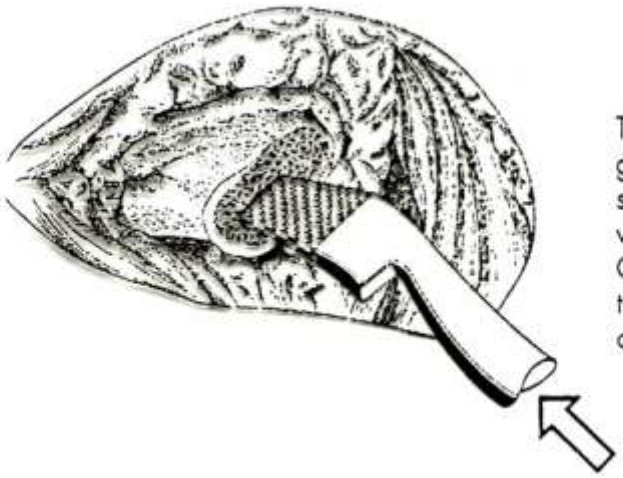


Also for the uncemented stem it is possible to spot the resection plane by means of the cervico-diaphyseal resection mask.

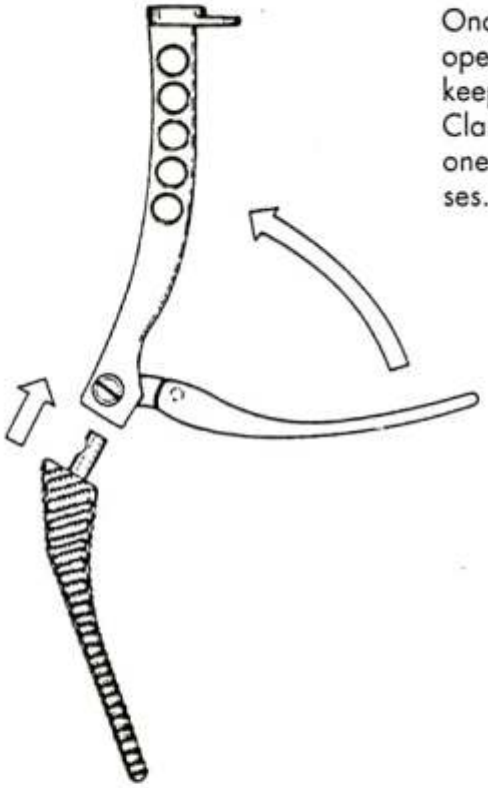
4. PREPARATION OF THE MEDULLARY CANAL

The diaphysis is punched by means of the chisel.





The preparation of the medullary canal begins with the solid rasps, starting with the smallest one and keeping the correct anti-version (ca. 15°).
Continue up to feel resistance, then remove the solid rasp and go on with the modular ones.

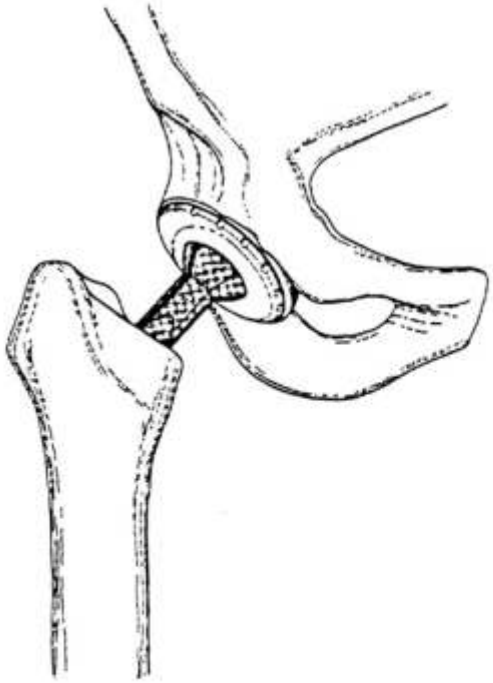


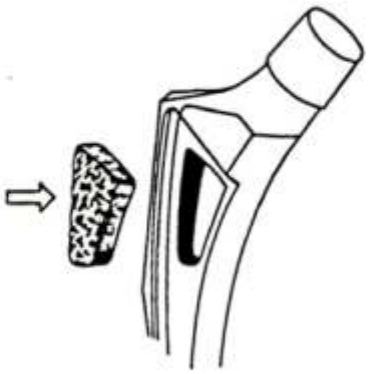
Once defined the right size of the rasp (i.e. the stem size), open the hand lever of the handle and insert the modular rasp keeping the medial side towards the lever (see the picture). Clamp the lever to the end. The solid rasps and the modular ones are identical, but the latter are also used as trial prostheses.

Complete the preparation of the prosthesis seating.
Open the lever and remove the handle leaving the rasp in the medullary canal.

5. TRIAL REDUCTION

Keeping the rasp *in situ*, the determination of the head size is now possible.
Fit the trial heads (28 or 32 mm dia.) over the rasp trunnion and reduce the joint seating the head into the acetabular cup previously implanted. Choose the lenght of the femoral head to be used (S, M, L) testing the joint tension.
In the end remove the trial head and, by means of the handle, the rasp.



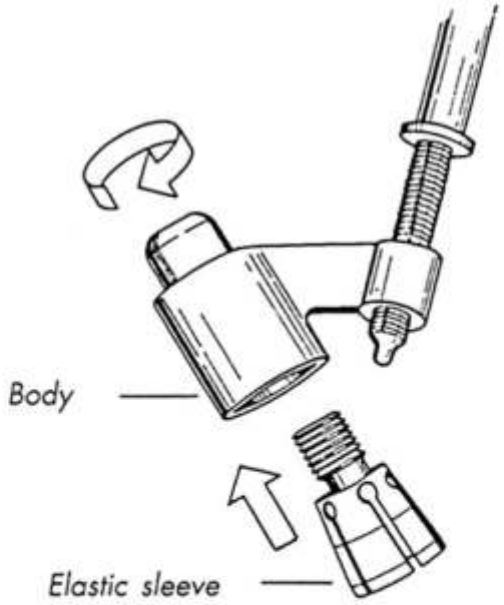


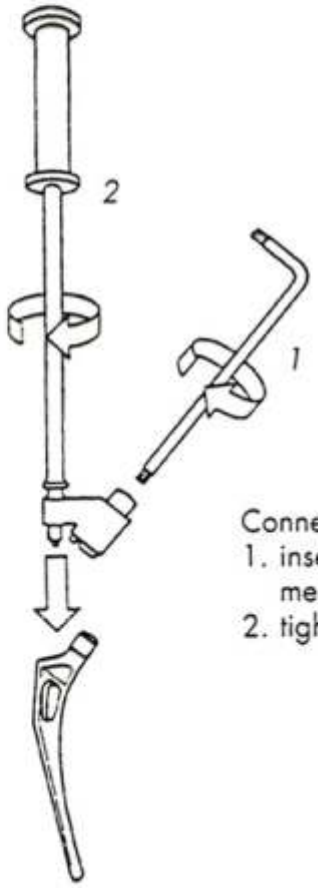
6. POSITIONING OF THE SPONGY GRAFT

Plug the cancellous bone graft into the stem window.

7. STEM PREPARATION

A special impactor-extractor is available to implant into the medullary canal the stem of the selected size which is the same of the latest rasp used.
According to the stem taper (12/14 or 14/16) tighten the corresponding elastic sleeve on the impactor-extractor body, without deforming the elastic sleeve.

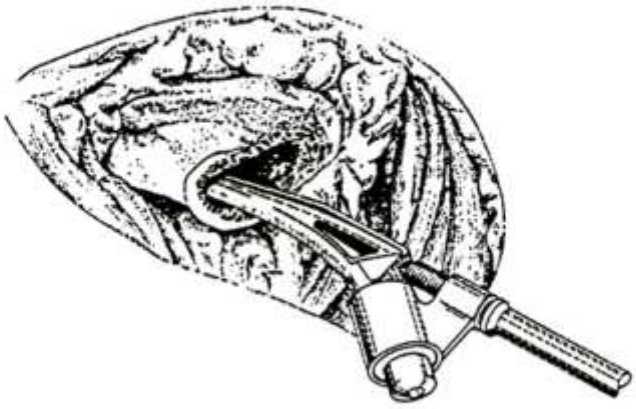


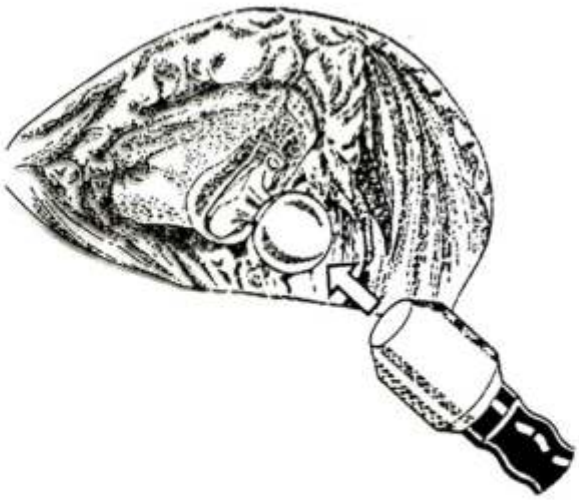


Connect stem and impactor-extractor as in the picture:
1. insert the taper into the elastic sleeve which is closed by means of the Allen wrench;
2. tighten the handle of the impactor-extractor.

8. STEM INTRODUCTION

Tap the impactor-extractor in order to introduce the stem thoroughly into the medullary canal.



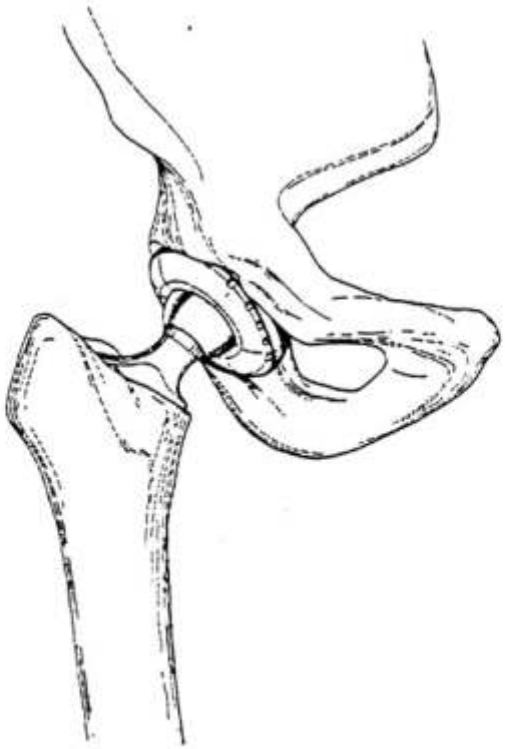


9. HEAD INSERTION

Verify with care the cleanness of the Morse tapers and fit the femoral head. A gentle axial tap with a plastic beater ensures the stability of the head-stem coupling.

10. FINAL REDUCTION

Verify the perfect cleanness of the sliding surfaces and definitively reduce the joint.



INSTRUMENTATION : **1 TRAY SYSTEM**
SURGICAL GUIDELINES : **REF # ST 014/99**

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DISTRIBUTED BY

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