

MAYO* Conservative Table of Contents **Hip Prosthesis Surgical Technique**

Developed in conjunction with

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Technical Notes

1. Rasping the Femur

The most important surgeon decisions are which implant size and length of neck to use. Hence, proper rasping technique is the most critical step of the procedure. The depth of rasp insertion determines the proper size of the implant. The following considerations have proven helpful in assuring adequate fit without femoral fracture:

- 1. Start with the small rasp for all sized femurs. This allows proper orientation for subsequent size rasps. The ease of insertion provides an estimate of the ultimate size rasp and implant to be used.
- 2. If the rasp can be inserted to a depth of 5mm distal to the proximal row of teeth, use the next size rasp.
- 3. As greater resistance is encountered with the rasp, withdraw it about 10mm to 15mm to clear the teeth of debris. Then re-impact the rasp.
- 4. When the rasp shows no tendency to advance further, if the proximal row of teeth is at the level of neck resection, the standard length of neck is usually appropriate.
- 5. If the rasp shows no tendency to advance, but the proximal row of teeth is 2mm or more proximal to the neck resection, the shorter neck trials will be necessary.

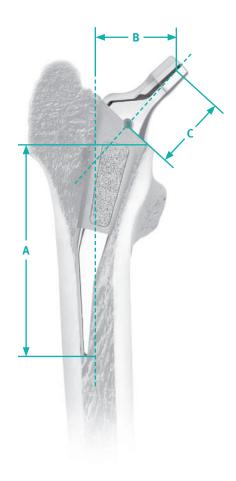
2. Implant Insertion

- The implant matches the largest size rasp that was used. It can be inserted by manual pressure to within 15mm of the proper depth of insertion.
- 2. Use gentle but firm blows to drive the implant into place.
- 3. The sound of the impaction changes with the depth of insertion and fixation rigidity. As the implant approaches stability, it "bottoms out" and the sound of the impaction has a more "solid" sound.
- 4. The ideal depth of impaction is such that the implant dimple is at the level of the resected femoral neck.
- 5. Each successive size implant can be inserted to a depth of about 15mm proximal to the completely seated smaller size. From this position, the implant should be driven at least to a depth where the dimple is 5mm or 6mm proximal to the femoral neck cut. If the implant shows no tendency to advance further, do not force the implant further down the canal. Accept the position and use the shorter neck implant.
- 6. If the implant is rigid when the dimple is 2mm to 3mm distal to the line of resection, use the longer neck lengths. This is quite uncommon.

Postoperative Rehabilitation

The postoperative rehabilitation program should be conservative. In the first month, increase the load by about 10 pounds per week. In the second month, the load progresses to about half-body weight. In the third month, full weight-bearing is allowed. The patient should use crutches for 8-10 weeks after surgery. A more aggressive return to weight-bearing depends on surgeon discretion based on the stability of the implant at the conclusion of implant impaction. Begin abduction strengthening exercises immediately after surgery and continue them for approximately three months.

Evaluate the patient after three months. If there is no evidence that the implant position has been altered and if the patient is having no symptoms, discontinue crutches and advise the patient on the use of a cane until this becomes no longer necessary (usually two to four weeks). Typically, patients are rechecked at one year and at regular intervals subsequent to this evaluation.



MAYO Conserative Hip Prosthesis

			A	В					C
			Stem Length	Offset v	Neck Length				
Prod. No.	HA/TCP Prod. No.	Size		-3.5	0	+3.5	+7.0	+10.5	
00-8026-011-00	65-8026-011-00	Small	81	35	38	40	43	45	30
00-8026-011-05	65-8026-011-05	Small +	85	36	39	41	44	46	30
00-8026-012-00	65-8026-012-00	Medium	89	37	40	42	45	47	31
00-8026-012-05	65-8026-012-05	Medium +	94	38	41	44	46	49	31
00-8026-013-00	65-8026-013-00	Large	98	40	43	45	48	50	33
00-8026-013-05	65-8026-013-05	Large +	102	41	44	46	49	52	33
00-8026-014-00	65-8026-014-00	X-Large	107	43	46	48	51	53	34

