Bio-Modular®/Bi-Polar Shoulder Arthroplasty

Bi-Polar Features

- Concentric contact with shoulder cavity, both subacromial and glenoid.
- Potentially less glenoid-acromial wear due to bi-rotational head/shell motion.
- Enhanced tensioning of deltoid lever arm in rotator cuff deficient shoulders.

The Bi-Polar humeral head is marketed for use in primary cases of non-inflammatory degenerative joint disease, rheumatoid arthritis, correction of severe functional deformity and fracture. The device is intended for use with a humeral stem inserted with bone cement. (USA)

[1]Data on file at Biomet, Inc.

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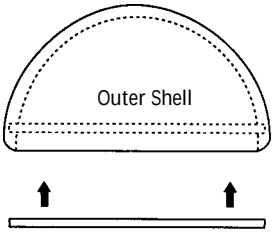
Bi-Polar Hemi Arthroplasty

Prepare the humeral canal as specified in the Bio-Modular® Total Shoulder System technique (Y-BMT-260R). Position the trial head and shell components on the trial humeral stem or actual humeral stem implant to determine the proper neck length and shell size. The top of the head must project above the greater tuberosity to prevent tuberosity-acromial impingement. Adequate soft tissue tension must also be restored. However, the component should not set too proud or range of motion may be decreased, resulting in less than optimal contact between the Bi-Polar shell and the true glenoid.

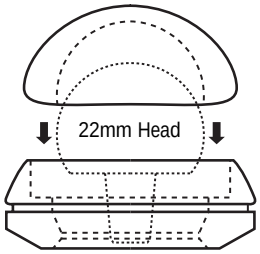


Bi-Polar Head Assembly

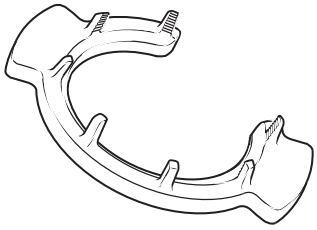
Once the appropriate Bi-Polar head diameter and neck length have been established, final component assembly can now be performed as follows:

1. Insert the metal locking ring into the groove in the Bi-Polar shell. (This is usually pre-assembled.)
2. After thoroughly cleansing and drying the reverse morse taper, place the polyethylene locking ring over the collar of the stem, resting on the humeral resection line.
3. Place the 22.2mm inner Bi-Polar head through the polyethylene locking ring and into the reverse morse taper. Impact the head into the taper.
4. Place the polyethylene inner liner over the 22.2mm head.
5. Place the outer shell over the locking ring/inner liner assembly and snap together. The metal locking ring of the outer shell will snap into the outer groove on the polyethylene locking ring.
6. Should the prosthesis ever need to be removed, use the locking ring removal tool to disassemble the Bi-Polar components, and the removal ramp to disengage the modular head.

Polyethylene Inner Liner



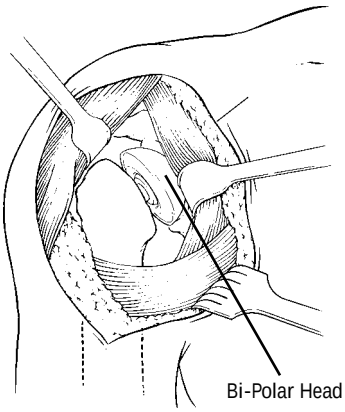
Polyethylene Locking Ring



Bi-Polar Removal Tool

Reattach the subscapularis with non-absorbable sutures. Then externally rotate the arm to see at what degree of external rotation the suture line comes under tension. This will be the maximum amount of external rotation permitted during the first six weeks following surgery.

Close in a routine manner and apply a sling at the conclusion of the procedure.



Bi-Polar Shell Components	
Part No.*	O.D./I.D.
113130	40 x 22.2mm
113131	44 x 22.2mm
113132	48 x 22.2mm
113133	52 x 22.2mm

*(Includes the polyethylene locking ring)

Metal Replacement Locking Rings for Bi-Polar Shells	
Part No.	Diameter
113170	40mm
113171	44mm
113172	48mm
113173	52mm

Bio-Modular®/Bi-Polar Modular Heads (Reverse Morse Taper)	
Part No.	Dia./Neck Length
113143	22.2mm / Standard
113144	22.2mm + 2
113145	22.2mm + 4

Bi-Polar Shell Trials

O.D./I.D. (mm)	
408400	40 x 22.2mm
408402	44 x 22.2mm
408404	48 x 22.2mm
408406	52 x 22.2mm

Bio-Modular/Bi-Polar Modular Head Trials

Dia./Neck Length (mm)	
408418	22.2mm / Standard
408420	22.2mm / + 2
408422	22.2mm / + 4

Bi-Polar Locking Ring Removal Tools

Dia. (mm)	
408435	40mm
408436	44mm
408437	48mm
408438	52mm

Biomet, as the manufacturer of this device, does not practice medicine and does not recommend any particular surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and utilizing the appropriate techniques for implanting the prosthesis in each individual patient. Biomet is not responsible for selection of the appropriate surgical technique to be utilized on an individual patient.

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