Indications:

1. Extensive degenerative changes in the radiohumeral joint of the elbow due to rheumatoid arthritis.
2. Unstable comminuted radial head fractures, generally Mason type III.

Considerations:

1. In case of rheumatoid arthritis, the surgery is often performed in order to relieve pain, and create stability in the joint.
2. If the range of motion is significantly decreased passively, including forearm rotation with a blocked end feel, there could be a heterotrophic ossification.
3. Elbow joints stiffen quickly with immobilization, therefore make sure adequate mobilization begins early and both flexion and extension ranges are maintained.

General Precautions for the Client:

1. In order to prevent elbow contractures, initiate post-operative rehab immediately.
2. Avoid any active elbow range of motion, especially supination, in the first two weeks post-op.
3. No heavy lifting, to carrying, pushing, pulling or weight-bearing through the affected upper extremity.

General Post-Operative Goals Weeks 1-6:

1. Pain and edema control while protecting healing tissues.
2. Prevent joint contractures.
3. Independence and compliance in splint wear.
4. Restore PROM in elbow.
Post-Operative Protocol:

0-1 Week Post-Op:

- Day 1 Post-Op, therapist fabricates a hinged elbow brace. May use a pre-fabricated product that allows locking in both flexion and extension. *Does not need to include the wrist/hand.
- Cryotherapy 3-5 times a day for 10 minutes.
- AROM exercises for the wrist and hand.
- May use tensor wrap for edema as required.
- Elbow CPM for passive flexion and extension, with forearm pronated or neutral.

1-3 Weeks Post-Op:

- Continue with CPM, advance range as tolerated.
- Continue with interventions above, including full-time bracing.
- Begin AAROM exercises for flexion and extension of the elbow, use small theraball on bench, or circles and saws in sitting with vertical cane.
- Passive forearm pronation, supination to tolerance, once 90 degrees of elbow flexion is achieved. Do not push into overt pain!
- Therapist mobilization - PROM, gentle grade I-II oscillations of elbow joint. Do not push into overt pain or be too aggressive.
- Scar massage, ultrasound, silicone gel sheet as needed.

3-6 Weeks Post-Op:

- Begin AAROM exercises for pronation and supination.
- Continue with the above exercises, progress PROM to full as tolerated. May require elbow turnbuckle splint (ex. J.A.S. or Mayo Clinic) for stiff elbows, where ROM is lagging in flexion or extension.
- 4-6 weeks post-op - begin gentle AROM for elbow flexion, extension, supination and pronation.
- Therapist mobilization as required to restore full PROM.
- Muscle stimulation as required to prevent wasting/atrophy, muscle spasm reduction.

General Post-Operative Goals Weeks 6-12:

1. Discharge splint wear.
2. Restore AROM to full and painfree in elbow, wrist and hand.
3. Begin strengthening program.
4. Return to light ADL’s with affected upper extremity.

6-8 Weeks Post-Op:

- Continue with the above program.
- Add isometric elbow flexion, extension, pronation and supination exercises.
- Self-stretching exercises for elbow flexion, extension, pronation and supination.
• Continue with turnbuckle and therapist stretching for any ROM lags.

8-12 Weeks Post-Op:

• Continue with above interventions as required.
• Obtain baseline dynamometry strength testing, grip strength.
• Begin light resistance program with free weights, and theraband resistance tubing for elbow flexion, extension, pronation, and supination. Begin with 2lb. weights and progress by 1lb. a week as appropriate. Progress to wall push-ups, and eccentric loading as tolerable (usually towards 12 weeks).
• Provide shoulder and wrist/hand strengthening exercises as necessary.
• Return to normal ADL’s, begin preparing for return to work where appropriate.
• Prepare for discharge with home exercise program when ROM and strength gains plateau (16-24 weeks post-op). ©