REHABILITATION AFTER TOTAL SHOULDER ARTHROPLASTY

**Phase I**: 0-6 weeks after surgery (may progress to Phase II when criteria met)

**Goals:**
1. Protect the shoulder arthroplasty
2. Ensure wound healing
3. Prevent shoulder stiffness

**Precautions:**
1. Protect subscapularis repair for the first 4 weeks. 
   *No external rotation beyond 30˚ for the first 4 weeks.*

**Activities:**
1. Use your sling during this period. When you are at home and not moving it is okay to come out of the sling as long as you are careful and keep the shoulder safe. Your elbow should be “tucked in” to your side whenever you are out of your sling. Put the sling on when you are outside or in a crowd. Keep the sling on when sleeping at night for the first 4 weeks.

2. You may use the hand on your operated arm as long as you do not rotate your shoulder away from your body. You should bend your arm at the elbow and use your fingers and hand such as to reach up and touch your face. Keep your elbow and hand in front of you.

3. You may shower as previously described. Do not submerge the wound under water.

4. Begin the phase one exercises (see below). Supine exercises should be done with a small rolled towel placed behind the elbow to avoid shoulder hyperextension and anterior capsular stretch.

5. Continue to use your ice or cooling system: 7 days per week, 4-5 times per day, 15-20 minutes per time
SHOULDER ARTHROPLASTY

EXERCISES:

ALL EXERCISES SHOULD BE DONE SLOWLY TO MAXIMIZE MUSCLE AND SOFT TISSUE INVOLVEMENT. DISCOMFORT IS ALLOWED – PAIN IS NOT. IF THE PAIN LINGERS AFTER THE STRETCH, THAT IS TOO FAR.

Program: 7 days per week, 4-5 times per day

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<tr>
<td>Supine forward arm elevation</td>
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<td>Shoulder blade pinches</td>
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Pendulum exercise
Remove your sling, bend over at the waist and let the arm hang down. Using your body to initiate movement, swing the arm gently forward and backward and in a circular motion.

Supine forward flexion
Lie on your back. Hold the affected arm at the elbow with the opposite hand. Assisting with the opposite arm, lift the operated arm upward, as if you bring the arm overhead. Slowly lower the arm back to the bed.

Shoulder blade pinches
While standing, pinch shoulder blades backward and together.

Passive internal rotation to chest. While sitting in a chair or standing, remove the sling and slowly push the operated arm into your chest.
SHOULDER ARTHROPLASTY

Phase II: approximately 6 weeks after surgery (not to begin before 4 weeks post-surgery to allow for healing). May progress to phase III when criteria met.

Criteria for progression to Phase II:
1. Tolerates PROM program
2. At least 90° passive forward flexion and elevation in the scapular plane
3. At least 30° passive external rotation
4. At least 70° passive internal rotation (measured at 30° abduction)

Goals:
1. Protect the shoulder and avoid overstressing the repair
2. Restore full passive range of motion
3. Gradually restore active motion
4. Re-establish dynamic shoulder stability

Activities:
1. The sling is no longer necessary. It is advisable to continue to wear it when out in public or large crowds as this may help people to avoid “slapping” you on the shoulder.
2. You may now use your operated arm. Avoid having your arm forcefully pulled.
3. Continue to avoid heavy lifting or manual labor. You should not lift anything heavier than a coffee cup. Any lifting should be done with weight in front of you.
4. Ice as needed for pain control. It is still a good idea to ice after therapy.
5. Check with Dr. Cook regarding driving and getting the wound wet in a pool or bath. Both may be okay at this time. Typically, ok after 4 weeks.

Program: 7 days per week, 3-4 times per day

<table>
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<tr>
<td>Supine external rotation</td>
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<td>Standing external rotation</td>
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<td>Wall climb stretch</td>
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<td>Side-lying external rotation</td>
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Supine external rotation
Lie on your back. Keep the elbow of the operated arm against your side with the elbow bent 90 degrees. Using a cane or a long stick in the opposite hand, push against the hand of the operated arm so that the operated arm rotates outward. Hold for 10 seconds, relax and repeat. The amount of allowed external rotation will be specified after surgery.

Standing external rotation
Stand with the operated shoulder toward a door. While keeping the operated arm firmly against your side and the elbow at a right (90°) angle, rotate your body away from the door to produce outward rotation at the shoulder. Hold for 10 seconds.

Supine external rotation with abduction
Lie on your back. Place your hands behind your head. Slowly lower your elbows to stretch the shoulders. Hold for 10 seconds.
SHOULDER ARTHROPLASTY

Wall climb
Stand facing a wall. Place the fingers of the operated arm on the wall. Using the fingers as “feet,” climb the hand and arm upward. As you are able to stretch the hand and arm higher, you should move your body closer to the wall. Hold for 10 seconds. Lower your arm by pressing your hand into the wall and letting it slide slowly down.

Standing forward flexion
Stand facing a mirror with your hands rotated so that your thumbs face forward. Raise the arm upward while keeping the elbow straight. Raise your arm to 90°. Once you can do 10 repetitions at 90° without hiking your shoulder blade, do 10 repetitions fully overhead.

Side-lying external rotation
Lying on your non-operated side, bend the elbow to a 90° angle and keep the operated arm firmly against your side with your hand resting on your abdomen. By externally rotating your operated shoulder, raise your hand upward, toward the ceiling. Hold for 1-2 seconds then slowly lower your hand.
SHOULDER ARTHROPLASTY

Prone arm raise
Lie face down on your bed with your operated arm hanging freely off the side. Rotate your hand so that the thumb faces away from you. Slowly raise your arm away from your body. Hold for 1-2 seconds then lower slowly.

Supine cross-chest stretch
Lying on your back, hold the elbow of the operated arm with the opposite hand. Gently stretch the elbow toward the opposite shoulder. Hold for 10 seconds.
SHOULDER ARTHROPLASTY

Phase III: approximately 10-12 weeks after surgery (not to begin before 8 weeks postop to allow time for healing).

Criteria for progression to Phase III:
1. Tolerates AA/A/PROM program
2. At least 140° passive forward flexion
3. At least 60° passive external rotation
4. At least 70° passive internal rotation (measured at 30° of abduction)
5. Able to elevate shoulder against gravity to 100° (with good mechanics).

Goals:
1. Protect the shoulder repair
2. Regain full range of motion
3. Gradual restoration of shoulder strength

Activities:
1. No heavy lifting (nothing heavier than 5 lbs). Weights should never go behind the head – you should always be able to see them. For therapy exercises Therabands are preferred over weights as these are more easily controlled.
2. No sudden or jerking motion.
3. Ice as needed after therapy.
4. Continue the active/passive range of motion program from Phase II.

Program: Strengthening/Theraband, 7 days per week, 1-2 times per day
Continue phase II exercises!!!

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<tr>
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<tr>
<td>Internal rotation</td>
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</tr>
<tr>
<td>Standing forward punch</td>
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</tr>
<tr>
<td>Shoulder shrug</td>
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<td>Seated row</td>
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<td>15-20</td>
</tr>
<tr>
<td>Biceps curl</td>
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<td>15-20</td>
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SHOULDER ARTHROPLASTY

**External Rotation**
Attach the Theraband at waist level to a door jamb. While standing sideways to the door and looking straight ahead grab one end of the band and pull all the way until it is taut. Your elbow is placed next to your side with your hand as close to your chest as possible. Taking the band in the operated arm, move the arm away from the body as far as comfortable.

**Internal Rotation**
Attach the Theraband at waist level in a door jamb. While standing sideways to the door and looking straight ahead grasp one end of the band and pull until it is taut. Your elbow is placed next to your side and flexed at 90 degrees. Taking the band in the operated arm, move the hand toward the chest as far as comfortable.

**Shoulder Shrug**
Lying on your non-operated side, bend the elbow to a 90° angle and keep the operated arm firmly against your side with your hand resting on your abdomen. By externally rotating your operated shoulder, raise your hand upward, toward the ceiling. Hold for 1-2 seconds then slowly lower your hand.

**Seated/Standing Row**
Attach the Theraband to a door jamb. Sit and face the door. Use a wide flat-footed stance and keep your back straight. Begin with your arms slightly flexed, hands together at waist level in front of your body, thumbs pointing up and with the cord taut. Pull the cord toward your chest until your hands touch the lower ribs.
SHOULDER ARTHROPLASTY

Standing forward punch
Attach the Theraband at waist level to a door jamb. Facing away from the door, stand in a boxing position with one leg ahead of the other. Stand up straight, do not bend at the waist. If the right shoulder is the operated shoulder, grab with your right hand and have your left foot forward. Begin with your arm at waist level and bend your elbow 90°. Slowly punch forward in an upward punching motion. The hand should reach approximately neck level with the operated arm almost straight.

Biceps Curls
Place your feet on the Theraband, shoulder width apart, knees slightly bent. Keeping your elbows close to your body, slowly bend the arm at the elbow and curl towards the shoulder.
SHOULDER ARTHROPLASTY

Phase IV: Not to begin before 12 weeks post-surgery.

Goals:
1. Maintain active range of motion
2. Continue to strengthen shoulder
3. Gradual return to more functional activities

Activities:
1. It is important to keep up your home exercise program as this gives the best chance for lasting success of your arthroplasty.
2. You will see Dr. Cook at 6 months and 1 year after surgery.
3. Okay to return to activities such as golf, tennis and swimming at 4-6 months post-surgery. Check with Dr. Cook prior to resuming activity. It will be important to gradually return to these activities.

Exercises:
1. Continue all exercises listed above
2. Prone goal:
   a. Flexion 160 degrees
   b. ER at 90 degrees Abd: 75-80 degrees
   c. IR at 90 degrees Abd: 60-65 degrees
3. Continue to emphasize AROM and strength
4. Progress strengthening exercises
5. Pool exercises and swimming
SHOULDER ARTHROPLASTY

Phase V: return to activity (usually 16 weeks postop)

Criteria for progression to Phase V:
1. PROM:
   a. Flexion 0-160 degrees
   b. ER 75 degrees
   c. IR 60 degrees
2. Strength level 4/5 for ER/IR/ABD

Goals:
1. Improve strength of shoulder musculature
2. Neuromuscular control of shoulder complex
3. Improve functional activities

Activities:
1. It is important to keep up your home exercise program as this gives the best chance for lasting success of your arthroplasty. Don’t undo all your hard work!
2. You will see Dr. Cook at 6 months and 1 year after surgery.
3. Okay to return to activities such as golf, tennis and swimming at 4-6 months post-surgery. Check with Dr. Cook prior to resuming activity. It will be important to gradually return to these activities. If necessary, we will discuss an interval program for return to sports.

Exercises:
• AAROM and stretching exercises
  o Flexion with L-bar
  o ER/IR at 90 degrees abduction

• Strengthening exercises
  o ER/IR tubing
  o Full Can
  o Lateral raises
  o Prone rowing
  o Side-lying ER
  o Prone extension
  o Biceps
  o Initiate interval sport program if appropriate (weeks 20-26)