



Rehab Practice Guidelines for: **SLAP Repair**

- Assumptions
- Grade II or IV (biceps involvement) SLAP lesion repair
 - Grade II: The biceps anchor has pulled away from the glenoid attachment
 - Grade IV: Involves a bucket handle tear of the superior labrum which extends into the biceps tendon; the torn biceps tendon and labrum are displaced into the joint

Primary surgery: Repair of a SLAP lesion, which is an injury of the superior labrum beginning posteriorly and extending anteriorly, stopping before or at the mid-glenoid notch and including the “anchor” of the biceps tendon to the labrum

Secondary surgeries (possible): MGHL repair

***NOTE: If couple with a Bankart Repair, follow Open Bankart Repair guidelines**

Expected # of visits: 12-27

Precautions	
Primary surgery (long head biceps and superior labrum)	<ul style="list-style-type: none"> ▪ Avoid “High 5 / Low 5” positions ▪ No passive shoulder extension or horizontal abduction for 2-4 weeks ▪ Caution with forceful supination with elbow flexed for 4-6 weeks ▪ No resisted shoulder flexion/horizontal adduction for 4-8 weeks ▪ No resisted elbow flexion for 8-12 weeks
Secondary Surgery (MGHL)	<ul style="list-style-type: none"> ▪ No ER at 0° abduction for 8-12 weeks



Date of Surgery: _____

SLAP Repair Rehab Protocol

Timeline	Treatment	Milestones^{2, 5}
<p><u>Week 1</u> Dates: _____ to _____</p> <ul style="list-style-type: none"> ▪ No formal PT ▪ Use sling 24 hrs/day^{1,5} ▪ No driving 	<ul style="list-style-type: none"> ▪ Ice for pain and inflammation control ▪ Remove Sling TID for Pendulum exercises (Codman's)^{2, 5} 	<ul style="list-style-type: none"> ▪ Sleep comfortably through the night wearing sling
<p><u>Weeks 2-4</u> Dates: _____ to _____</p> <ul style="list-style-type: none"> ▪ Begin PT 1-3 visits/week ▪ Able to remove sling at home but should use sling in crowds and uncontrolled situations ▪ D/C use of sling at end of week 4 <p>Total Visits: 3-9</p>	<ul style="list-style-type: none"> ▪ Modalities for pain and inflammation control as needed ▪ Scar Mobilization when incisions healed ▪ <u>Joint Mobilization</u> <ul style="list-style-type: none"> ○ <i>If hypomobile</i> - grade III/IV mobilizations <ul style="list-style-type: none"> ▪ No aggressive mobilization of anterior or posterior capsule ○ <i>If normal</i>- grade I/II mobilizations PRN ▪ <u>PROM and AAROM exercises in all planes only to restrictions stated in milestones^{1,2,5}</u> <ul style="list-style-type: none"> ○ Begin in gravity minimized ○ No "Low or High 5" position ○ No ER at 0° abduction if MGHL repair ▪ <u>Pain-free sub-maximal isometric strengthening^{1,2,5}</u> <ul style="list-style-type: none"> ○ No ER at 0° abduction if MGHL repair ▪ <u>Scapular control exercises^{2,3,5}</u> <ul style="list-style-type: none"> ○ Scap PNF, scap retractions, T-Band Rows and prone extension to plane of body ▪ Rhythmic stabilization exercises^{2,6} ▪ <u>Elbow and grip ROM/strengthening prn^{1,2,5}</u> <ul style="list-style-type: none"> ○ No resisted elbow flex for 8-12 weeks ▪ Initiate HEP 	<ul style="list-style-type: none"> ▪ <u>PROM:</u> <ul style="list-style-type: none"> ○ Horiz ADD: full ○ IR: full in plane of scapula ○ ER: 45° in plane of scapula ○ Flexion/ABD: 120° ○ Ext: to plane of the body ▪ Normal glenohumeral jt. Mobility ▪ Normal scapulohumeral rhythm ▪ No hypomobility or hypersensitivity of the scars
<p><u>Week 5-8</u> Dates: _____ to _____</p> <ul style="list-style-type: none"> ▪ 1-3 visits/wk <p>Total Visits: 8-21</p>	<ul style="list-style-type: none"> ▪ <u>Progress ROM to milestones^{1,2,5}</u> <ul style="list-style-type: none"> ○ AROM to milestones without compensations ○ Progress Sleeper stretch to increased angles of ABD if IR limited ▪ <u>Progress shoulder strengthening exercises from isometric to isotonic^{1,2,5}</u> <ul style="list-style-type: none"> ○ No ER at 0° if MGHL repair ○ Begin resisted flexion strengthening in gravity minimized positions progressing to gravity resisted ○ Shoulder flexion, scaption, and ABD to 90° without compensations ○ Sidelying ER ▪ <u>Progress Scapular Strengthening Exercises^{2,3,5}</u> <ul style="list-style-type: none"> ○ Progress serratus push-up plus to more horizontal surfaces ○ T-Band Rows to 20° ext ○ Scap PNF with arm in functional positions ○ Prone rows, LT, MT, and horizontal ABD ▪ <u>Dynamic stabilization exercises^{1,2,6,5}</u> <ul style="list-style-type: none"> ○ "Ball on the Wall" at 90° flexion ○ Progress rhythmic stabilizations to more challenging and functional positions ○ D2 PNF with manual resistance ○ Inertial machine IR/ER beginning in less ABD/ER and progressing to more ABD/ER 	<ul style="list-style-type: none"> ▪ <u>PROM:</u> <ul style="list-style-type: none"> ○ Horizontal ADD: full ○ IR: full in plane of scapula ○ ER: 60° in plane of scapula <ul style="list-style-type: none"> ▪ At 6 wks begin light & gradual ER @ 90° ABD – progress to 30°-40° ER ○ Flex/ABD: 135° pure plane <ul style="list-style-type: none"> ▪ Progress to full after week 6 ○ Ext: to 20° beyond the plane of the body



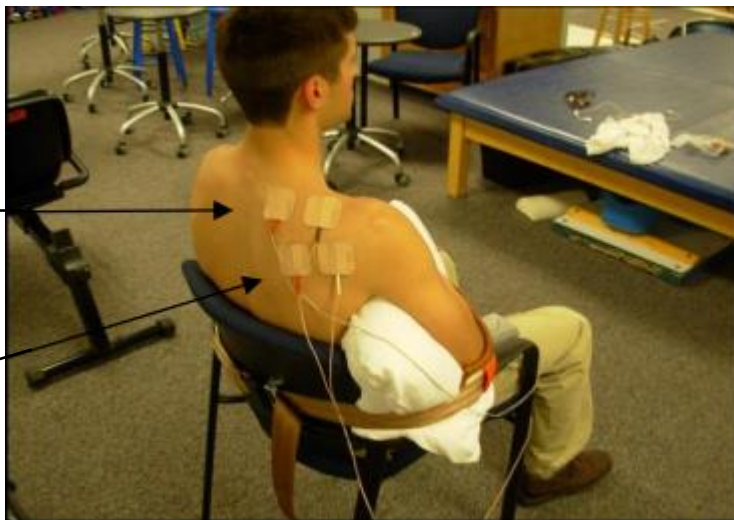
	<ul style="list-style-type: none"> ▪ PRN: Begin NMES to posterior RTC using guidelines at end of protocol⁸ ▪ Modify HEP accordingly 	
<p><u>Weeks 8-12</u> Dates: _____ to _____</p> <ul style="list-style-type: none"> ▪ 1-3 visits/week <p>Total Visits 12-27</p>	<ul style="list-style-type: none"> ▪ Continue to progress shoulder strengthening exercises^{1,2,5} ▪ <u>Continue to Progress scapular stabilization/strengthening exercises</u>^{2,3,4,5} <ul style="list-style-type: none"> ○ Progress current exercises into higher elevation PRN ○ Closed chain lateral step-ups in push-up position ○ Quadraped or tripod rhythmic stabilizations ▪ Begin gym strengthening program as part of HEP with appropriate weightlifting modifications⁷ 	<ul style="list-style-type: none"> ▪ Maintains full A/PROM ▪ Independent with HEP ▪ MMT 5/5 all shoulder motions
<p><u>Weeks 12-16</u> Dates: _____ to _____</p> <ul style="list-style-type: none"> ▪ Physical therapy is as needed for sport/work specific activities 	<ul style="list-style-type: none"> ▪ Continue strengthening and dynamic stabilization exercises as HEP and/or in PT prn^{1,2,5,6} ▪ Begin sport specific interval training program and/or throwing progression^{2,5,6} ▪ Progression of sport/work specific rehabilitation following soreness rules^{1,2,6,7} 	<ul style="list-style-type: none"> ▪ Return to sport/work

Neuromuscular Electrical Stimulation NMES Guidelines⁸

- Patient Positioning: seated in a chair with arm in about 30° of elevation in scapular plane and neutral IR/ER using a mobilization belt to prevent movement

- Electrode Placement

- Supraspinatus: both pads placed superior to spine of scapula. One pad placed at the medial border of the scapula and one pad placed at lateral border of scapula. Avoid the upper trapezius as much as possible.
- Infraspinatus: both pads placed inferior to the spine of the scapula. One pad placed at the medial border of the scapula and one pad placed at the lateral border of the scapula.



- Parameters:

- **EMPI 300PV unit:** Pulse width= 400 microseconds, frequency= 75 pulse per second, on time= 12 seconds, off time= 50 seconds, ramp time= 2 seconds. Intensity to tolerance, goal of visible tetanic contraction.
- **Versastim:** Pulse width=2500Hz, frequency=75 bursts per second, on time=12 seconds, off time=50 seconds, ramp time=2 seconds. Intensity to tolerance, goal of visible tetanic contraction.



References

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