# USASOC GUIDELINES FOR POST-CONCUSSION REHABILITATION

<table>
<thead>
<tr>
<th>Rehabilitation Stage</th>
<th>Physical Therapy Program</th>
<th>Recommended Exercises</th>
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</table>
| **Stage 1**          | - Very light aerobic conditioning  
- Sub-max isometric strengthening  
- ROM/Stretching  
- Low-level balance activities |  
Stationary Bike; seated elliptical; treadmill walking (10-15 minutes)  
Quad sets; Ham sets; light hand weights; resistive band rowing; SLR’s; resistive bands ankle strengthening  
Cervical ROM exercise; trap/LS stretching, pec stretch; hamstring stretching, quad stretching, calf stretching  
Romberg exercises, single leg balance |
| **Stage 2**          | - Light to moderate aerobic conditioning  
- Light weight  
- Active stretching  
- Moderate balance activities; initiate activities with head position changes |  
Treadmill; stationary bike; elliptical (20-30 minutes)  
Light weight strength exercises, resistive band exercises; wall squats; lunges; step up/downs  
Any stage 1 stretching; active stretching as tolerated  
Romberg exercises, VOR exercise (walking with eyes focused and head turns); Swiss ball exercises; single leg balance exercises |
| **Stage 3**          | - Moderately aggressive aerobic exercise  
- All forms of strength exercise  
- Active stretching exercise  
- Impact activities (running, plyometrics)  
- Challenging proprioceptive and dynamic balance; challenging positional changes |  
Treadmill (jogging); stationary bike; elliptical (25-30 min)  
Resistive weight training including free weights; functional squat; dynamic strength activities  
Active stretching (lunge walks, side to side groin stretching, walking hamstring stretch  
Initiate agility drills (zig-zag runs, side shuffle), jumping on blocks  
Higher level balance activities; ball toss on plyo floor, balance discs, squats and lunges on BOSU ball |
| **Stage 4**          | - Non-contact physical training  
- Aggressive strength training  
- Impact activities/plyometrics  
- Job-specific physical training |  
Program to be designed by unit physical therapist  
Interval training  
Job-specific drills/training |

Guidelines adopted from the University of Pittsburgh Sports Medicine Concussion Program
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<th>Stage 5</th>
<th>Recommendations</th>
<th>Program to be designed by unit physical therapist</th>
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<tbody>
<tr>
<td>Target Heart Rate: Full exertion</td>
<td>- Resume full physical training with contact</td>
<td>Train at full combat intensity</td>
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<tr>
<td>Recommendations: Full activities and combat training</td>
<td>- Continue aggressive strength and conditioning exercises</td>
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<td></td>
<td>- Job-specific activities (shooting, CQB training, fast-roping)</td>
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