



Patient Name: \_\_\_\_\_

Diagnosis: \_\_\_\_\_ PT Duration: \_\_\_\_\_ / Week \_\_\_\_\_ Weeks

Phase	Precautions	Treatment Recommendations	Emphasize
<p><b>Phase 1: Acute/High Irritability Phase</b></p> <p><i>Criteria for Advancement:</i> -Minimize antalgia and use of assistive devices during gait -Pain and swelling controlled</p>	<ul style="list-style-type: none"> <li>▪ Screen patient for fractures with the Ottawa Ankle/Foot Rules</li> <li>▪ Assess for severity of injury to supporting structures, e.g. peroneal tendon, flexor hallucis longus</li> <li>▪ Maintain MD precautions if applicable</li> </ul>	<ul style="list-style-type: none"> <li>▪ Swelling management                             <ul style="list-style-type: none"> <li>o Protect, Rest, Ice, Compression, Elevation (PRICE), modalities</li> </ul> </li> <li>▪ Gait and stair training                             <ul style="list-style-type: none"> <li>o Focus on optimal loading and early weight bearing</li> <li>o Encourage symmetrical gait pattern</li> <li>o Train in use of assistive device if necessary</li> <li>o Taping/bracing as needed</li> </ul> </li> <li>▪ A/AA/PROM of the ankle                             <ul style="list-style-type: none"> <li>o Do not overload involved tissues</li> <li>o Focus on non-weight bearing (NWB)/limited weight bearing interventions</li> </ul> </li> <li>▪ Balance/proprioception                             <ul style="list-style-type: none"> <li>o Seated multi-directional rocker board minimizing stress to injured tissues</li> </ul> </li> <li>▪ Pain-free ankle/foot strengthening                             <ul style="list-style-type: none"> <li>o Isometrics progressing to isotonics</li> <li>o Intrinsic strengthening</li> </ul> </li> <li>▪ Low-grade joint mobilizations focusing on the distal tibiofibular, talocrural and subtalar joints, e.g. posterior talar glides and mobilizations with movement</li> <li>▪ Proximal LE and core strengthening, UE strengthening as needed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pain-free exercise</li> <li>▪ Swelling management</li> <li>▪ Limit motions which stress healing tissues                             <ul style="list-style-type: none"> <li>o Anterior talofibular ligament (ATFL) limit: Inversion (INV) and Plantarflexion (PF)</li> <li>o Calcaneofibular ligament (CFL) and posterior talofibular ligament (PTFL) limit: INV</li> <li>o Deltoid ligament limit: Eversion (EV)</li> <li>o High ankle sprain limit: Weight-bearing (WB) INV/EV</li> </ul> </li> </ul>
<p><b>Phase 2: Subacute/Moderate Irritability Phase</b></p> <p><i>Criteria for Advancement:</i> -Gait normal without assistive device -Pain and swelling self-managed as activity increases</p>	<ul style="list-style-type: none"> <li>▪ Premature return to activity</li> <li>▪ Avoid stretching of injured ligaments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Swelling management                             <ul style="list-style-type: none"> <li>o Consider compression sleeve</li> </ul> </li> <li>▪ Gait and stair training                             <ul style="list-style-type: none"> <li>o Encourage symmetrical gait pattern</li> </ul> </li> <li>▪ A/PROM of the ankle                             <ul style="list-style-type: none"> <li>o Address persisting deficits</li> </ul> </li> <li>▪ Neuromuscular training</li> <li>▪ Weight bearing balance/proprioception                             <ul style="list-style-type: none"> <li>o Progression from bilateral to unilateral</li> <li>o Progression from static to dynamic</li> <li>o Sagittal progressing to multidirectional</li> <li>o Progression from level ground to compliant surfaces                                     <ul style="list-style-type: none"> <li>-Multi-directional rockerboard, proprioceptive foam, hemispheric balance trainer</li> </ul> </li> </ul> </li> <li>▪ Weight bearing strengthening                             <ul style="list-style-type: none"> <li>o Heel rise progression                                     <ul style="list-style-type: none"> <li>- Track directly to 1st/2nd metatarsals</li> </ul> </li> </ul> </li> <li>▪ Progressive joint mobilizations targeting on distal tibiofibular, talocrural and subtalar joints</li> <li>▪ ADL specific training                             <ul style="list-style-type: none"> <li>o Progressive community ambulation</li> </ul> </li> <li>▪ Heel and toe walking</li> <li>▪ Negotiate down stairs</li> <li>▪ Squats</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pain-free exercise</li> <li>▪ Swelling control</li> <li>▪ Tripod contact pattern of foot to floor</li> <li>▪ Limit motions which stress healing tissues                             <ul style="list-style-type: none"> <li>o ATFL: INV/PF</li> <li>o CFL/PTFL: INV</li> <li>o Deltoid: EV</li> <li>o High Ankle: WB INV/EV</li> </ul> </li> </ul>

(continued)

# Ankle Sprain Rehabilitation Protocol

Joseph D. Lamplot, M.D.

<p><b>Phase 2:</b> <b>Subacute/Moderate Irritability Phase (continued)</b></p>		<ul style="list-style-type: none"> <li>▪ Transitions onto and off of the floor               <ul style="list-style-type: none"> <li>o Front and side planks</li> <li>o Kneeling/half kneeling exercises</li> </ul> </li> <li>▪ Resume cardio activities if not symptomatic</li> </ul>	
<p><b>Phase 3: Chronic/Low Irritability Phase</b></p> <p><i>Criteria for Discharge:</i>          -Full ankle ROM and strength          -Heel rise strength 90-100% equal to the contralateral side and/or 20 heel rises on involved side (see Hebert-Losier reference for age specific norms)          -Ability to perform task and sport specific interventions with no instability or increase in symptoms          -Patient appropriate functional testing, e.g. drop vertical jump vs. 6-minute walk test</p>	<ul style="list-style-type: none"> <li>▪ Premature return to activity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Swelling management               <ul style="list-style-type: none"> <li>o Consider compression sleeve A/PROM of the ankle</li> <li>o Address persisting deficits in range of motion and joint mobility</li> </ul> </li> <li>▪ Weight bearing balance/proprioception               <ul style="list-style-type: none"> <li>o Progress to unilateral and dynamic stabilization</li> </ul> </li> <li>▪ Multi-directional rockerboard, foam, hemispheric balance trainer</li> <li>▪ Sport specific balance/proprioception</li> <li>▪ Perturbations</li> <li>▪ Reactionary drills emphasizing directional and speed changes</li> <li>▪ Weight bearing strengthening               <ul style="list-style-type: none"> <li>o Heel rise progression</li> <li>o Eccentric control</li> <li>o Increase load (reintroduce previously symptomatic movements)</li> <li>o Endurance training</li> </ul> </li> <li>▪ Incorporate instability into progression</li> <li>▪ Work on inclines/declines/sport specific terrain</li> <li>▪ Loaded squat variations               <ul style="list-style-type: none"> <li>o Bilateral/unilateral</li> </ul> </li> <li>▪ Progress to single leg side planks</li> <li>▪ Running, plyometrics, agilities, hopping               <ul style="list-style-type: none"> <li>o Deceleration and cutting exercises</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Weight bearing stability</li> <li>▪ Task specific training</li> <li>▪ Gait duration/distance/step count</li> <li>▪ Tripod contact pattern of foot to floor in high level activities</li> </ul>

Protocol adapted from Hospital for Special Surgery Rehabilitation ankle sprain guidelines