

Rehabilitation Protocol for Athletic Pubalgia (Non-Operative Management)

This protocol is designed to assist clinicians in managing non-operative treatment for groin pain in athletes. It is primarily criterion-based, meaning that specific interventions should be tailored to the individual’s needs, considering their examination results and clinical judgment. While this guideline provides timeframes for expected outcomes, these may vary depending on the clinician's preferences, any additional treatments, or complications. Clinicians seeking guidance on advancing a non-operative patient’s care should consult the referring physician.

The suggested interventions within this protocol do not encompass all possible exercises. Therapeutic strategies should be adjusted based on patient progress and clinical discretion.

Considerations for Non-Operative Management of Groin Pain in Athletes

Several factors can affect the outcome of non-operative treatment for groin pain in athletes, such as the history of the injury, its severity, and the specific structures involved (e.g., adductor, inguinal, pubic, or hip-related). As healing times can vary, this protocol is criterion-based rather than time-based. Clinicians are advised to work closely with the referring physician to address these variables.

Differential Diagnosis

Groin pain in athletes is a complex issue due to the variety of potential injured structures. The literature includes numerous terms—33 in total—for describing this type of pain. In 2015, the DOHA agreement aimed to standardize terminology, recommending “groin pain in athletes” as the overarching term, with three categories: groin pain, hip joint-related pain, and other causes. This protocol will focus on treating the groin pain subgroup in athletes.

Groin Pain in Athletes		
Groin pain	Hip joint related	Other
<ul style="list-style-type: none"> • Adductor related • Pubic related • Inguinal related • Iliopsoas related 	<ul style="list-style-type: none"> • Femoral Acetabular Impingement (FAI) • Labral pathology • Osteoarthritis of the hip (>50yo) 	<ul style="list-style-type: none"> • Nerve entrapment • Lumbar spine • Stress fracture • Avascular necrosis • Slipped capitol femoral epiphysis (<15yo) • Legg-Calve-Perthe’s disease (<10yo)

PHASE I: Acute

Rehabilitation Goals	<ul style="list-style-type: none"> • Pain Control • Reduce Swelling • Improve muscle length of pelvic girdle musculature • Normalize Lumbopelvic ROM
Precautions	<ul style="list-style-type: none"> • Avoid lifting or other activities that increases intra-abdominal pressure
Interventions	<p><i>Manual Therapy</i></p> <ul style="list-style-type: none"> • STM along the adductor muscle group and associated pelvic musculature as needed • PROM of the hip • Lumbar and Hip mobilizations as needed <p><i>Stretching</i></p> <ul style="list-style-type: none"> • Gentle stretching <ul style="list-style-type: none"> Lumbar: trunk rotations Adductor: figure 4 Hip flexor: Thomas Hip rotator: cross body Hamstring: supine <p><i>Therapeutic Exercise</i></p> <ul style="list-style-type: none"> • Isometrics of the adductors: ball squeeze hip extended and hook lying • TrA progressions • Quadruped Progressions • Bridge progressions • Side lying hip abduction • SLR • Prone hip extension • Proprioception: Single leg balance progressions • Functional: squat, step up <p><i>Cardiovascular</i></p> <ul style="list-style-type: none"> • Walking moderate pace • Elliptical • Bike • Pool treadmill
Criteria to Progress	<ul style="list-style-type: none"> • <2/10 Pain with exercises • <2/10 Pain with MMT • Symmetrical hip ROM

PHASE II: Subacute

Rehabilitation Goals	<ul style="list-style-type: none"> • Initiate Progressive Resistive Exercises (PRE) • Initiate Return to running protocol
Additional Interventions *Continue with Phase I interventions	<p><i>Therapeutic Exercise</i></p> <ul style="list-style-type: none"> • Core: Continue above progressions, plank progressions • Concentric Hip strengthening with PRE: 4 way standing, • Eccentric Hip strengthening: Copenhagen adduction progressions, Slide board • Concentric Rectus Abdominus (RA): straight and oblique crunch and full • Functional: Squat, Lunge Matrix, RDL with PRE • Proprioceptive: continue above progressions with airex

PHASE II: Subacute CONTINUED

<p>Additional Interventions *Continue with Phase I interventions</p>	<p><i>Cardiovascular</i></p> <ul style="list-style-type: none"> • Return to running protocol
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Pain free jogging • Pain free exercises • Hip (flexion, abduction, adduction) LSI <20%

PHASE III: Early Return to Sport

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Normalize strength • Initiate plyometric program • Initiate Sprinting program • Initiate Agility program
<p>Additional Interventions *Continue with Phase I interventions</p>	<ul style="list-style-type: none"> • Functional: Continue with PRE as previously defined • Medicine ball routine: chest pass, side to side pass, Overhead pass • Plyometric protocol • Agility protocol • Return to sprinting protocol
<p>Criteria to Progress</p>	<p><i>Return to Sport Criteria:</i></p> <ul style="list-style-type: none"> • Clearance from MD and ALL milestones met • Completion of plyometric, sprinting and agility program • Functional Assessment: <ul style="list-style-type: none"> ◦ Hip index (flexion, abduction, adduction, extension) ≥90%; HHD mean or isokinetic testing @ 60d/s ◦ Adductor/Abductor ratio >80% using HHD ◦ Hop Testing ≥90% compared to contra lateral side, demonstrating good landing mechanics • HAGOS questionnaire >90%

PHASE IV: Unrestricted Return to Sport

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Return to practice
<p>Additional Interventions *Continue with Phase I interventions</p>	<ul style="list-style-type: none"> • Return to practice/scrimmage • Multi-plane sport specific plyometrics program • Multi-plane sport specific agility program • Include hard cutting and pivoting depending on the individuals' goals • Non-contact practice Full practice Full play
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Last stage, no additional criteria

For further assistance or to schedule an appointment, please contact **iOrtho - The Orthopedic Institute** at **833-464-6784** or visit our website at **iorthomd.com** to text/email us. Our team is dedicated to providing personalized care and guidance throughout your rehabilitation journey.