

## Medical Coverage Policy | Surgery for Groin Pain in Athletes



**EFFECTIVE DATE:** 04|07|2015

**POLICY LAST REVIEWED:** 04|02|2025

### OVERVIEW

Sports-related groin pain, commonly known as athletic pubalgia or sports hernia, is characterized by disabling activity-dependent lower abdominal and groin pain not attributable to any other cause. Athletic pubalgia is most frequently diagnosed in high-performance male athletes, particularly those who participate in sports that involve rapid twisting and turning such as soccer, hockey, and football. For patients who fail conservative therapy, surgical repair of any defects identified in the muscles, tendons or nerves has been proposed.

### MEDICAL CRITERIA

Not applicable

### PRIOR AUTHORIZATION

Not applicable

### POLICY STATEMENT

#### Medicare Advantage Plans

Surgical treatment of athletic pubalgia groin pain in athletes (also known as athletic pubalgia, Gilmore groin, osteitis pubis, pubic inguinal pain syndrome, inguinal disruption, slap shot gut, sportsmen groin, footballers groin injury complex, hockey groin syndrome, athletic hernia, sports hernia, or core muscle injury) is considered not covered as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

#### Commercial Products

Surgical treatment of athletic pubalgia groin pain in athletes (also known as athletic pubalgia, Gilmore groin, osteitis pubis, pubic inguinal pain syndrome, inguinal disruption, slap shot gut, sportsmen groin, footballers groin injury complex, hockey groin syndrome, athletic hernia, sports hernia, or core muscle injury) is considered not medically necessary as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

### BACKGROUND

Groin pain in athletes is a poorly defined condition for which there is no consensus on cause and/or treatment. Alternative names include Gilmore groin, osteitis pubis, pubic inguinal pain syndrome, inguinal disruption, slap shot gut, sportsmen groin, footballers' groin injury complex, hockey groin syndrome, athletic hernia, sports hernia, and core muscle injury.

Some believe the groin pain to be an occult hernia process, a prehernia condition, or an incipient hernia, with the major abnormality being a defect in the transversalis fascia, which forms the posterior wall of the inguinal canal. Another theory is that injury to soft tissues that attach to or cross the pubic symphysis is the primary abnormality. The most common of these injuries is thought to be at the insertion of the rectus abdominis onto the pubis, with either primary or secondary pain arising from the adductor insertion sites onto the pubis. It has been proposed that muscle injury leads to failure of the transversalis fascia, with a resultant formation of a bulge in the posterior wall of the inguinal canal. Osteitis pubis (inflammation of the pubic tubercle) and nerve irritation/entrapment of the ilioinguinal, iliohypogastric, and genitofemoral nerves are also believed to

be sources of chronic groin pain. A 2015 consensus agreement recommended the more general term groin pain in athletes, with specific diagnoses of adductor-related, iliopsoas-related, inguinal-related, and pubic-related groin pain.

An association between femoroacetabular impingement (FAI) and athletic pubalgia has also been proposed. It is believed that if FAI presents with limitations in hip range of motion, compensatory patterns during athletic activity may lead to increased stresses involving the abdominal obliques, distal rectus abdominis, pubic symphysis, and adductor musculature. Surgery for athletic pubalgia has been performed concurrently with treatment of FAI, or following FAI surgery if symptoms did not resolve.

A diagnosis of athletic pubalgia is based primarily on history, physical exam, and imaging. The clinical presentation will generally be one of gradual onset of progressive groin pain associated with activity. Physical exam will not reveal any evidence for a standard inguinal hernia or groin muscle strain. Imaging with MRI or ultrasound is generally done as part of the workup. In addition to exclusion of other sources of lower abdominal and groin pain (e.g., stress fractures, femoroacetabular impingement, labral tears), imaging may identify injury to the soft tissues of the groin and abdominal wall.

Many injuries will heal with conservative treatment, which includes rest, icing, nonsteroidal anti-inflammatory drugs, and rehabilitation exercises. A physical therapy (PT) program that focuses on strength and coordination of core muscles acting on the pelvis may improve recovery. In a 1999 study, 68 athletes with chronic adductor-related groin pain were randomized to 8 to 12 weeks of an active training PT program that focused on strength and coordination of core muscles, particularly adductors, or to standard PT without active training. At 4 months post-treatment, 68% of patients in the active training group had returned to sports without groin pain compared with 12% in the standard PT group. At 8- to 12-year follow-up, 50% of athletes in the active training group rated their outcomes as excellent compared with 22% in the standard PT group. For in-season professional athletes, injections of corticosteroid or platelet-rich plasma, or a short corticosteroid burst with taper have also been used.

For individuals who have sports-related groin pain who receive mesh reinforcement, the evidence includes 2 randomized controlled trials (RCTs) and a large prospective series. Relevant outcomes are symptoms, functional outcomes, and treatment-related morbidity. Results of the RCTs have suggested that, in carefully selected patients, mesh reinforcement results in an earlier return to play. However, a large prospective series from 2016 indicated that only about 20% of patients with chronic groin pain benefit from inguinal surgery. Further study is needed to define the patient population that would benefit from this treatment approach. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have sports-related groin pain who receive surgical repair or release of soft tissue, the evidence includes a large case series. Relevant outcomes are symptoms, functional outcomes, and treatment-related morbidity. The case series reported surgical repair or release of soft tissue as an alternative approach for the treatment of groin pain; the study included a review (completed in 2008) of medical records spanning 2 decades and over 5,000 cases. More recent reports on these procedures from other institutions are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

## **CODING**

### **Medicare Advantage Plans and Commercial Products**

There is not a specific code for the surgical treatment of groin pain in athletes, use the unlisted codes below following the unlisted process:

**27299** Unlisted procedure, pelvis or hip joint

**49659** Unlisted laparoscopy procedure, hernioplasty, herniorrhaphy, herniotomy

**49999** Unlisted procedure, abdomen, peritoneum and omentum

## **RELATED POLICIES**

## Unlisted Procedures

### PUBLISHED

Provider Update, June 2025

Provider Update, May 2024

Provider Update, May 2023

Provider Update, June 2022

Provider Update, May 2021

### REFERENCES

1. Litwin DE, Sneider EB, McEnaney PM, et al. Athletic pubalgia (sports hernia). *Clin Sports Med*. Apr 2011; 30(2): 417-34. PMID 21419964
2. Kraeutler MJ, Mei-Dan O, Belk JW, et al. A Systematic Review Shows High Variation in Terminology, Surgical Techniques, Preoperative Diagnostic Measures, and Geographic Differences in the Treatment of Athletic Pubalgia/Sports Hernia/Core Muscle Injury/Inguinal Disruption. *Arthroscopy*. Jul 2021; 37(7): 2377-2390.e2. PMID 33845134
3. Weir A, Brukner P, Delahunt E, et al. Doha agreement meeting on terminology and definitions in groin pain in athletes. *Br J Sports Med*. Jun 2015; 49(12): 768-74. PMID 26031643
4. Munegato D, Bigoni M, Gridavilla G, et al. Sports hernia and femoroacetabular impingement in athletes: A systematic review. *World J Clin Cases*. Sep 16 2015; 3(9): 823-30. PMID 26380829
5. Khan W, Zoga AC, Meyers WC. Magnetic resonance imaging of athletic pubalgia and the sports hernia: current understanding and practice. *Magn Reson Imaging Clin N Am*. Feb 2013; 21(1): 97-110. PMID 23168185
6. Hölmich P, Uhrskou P, Uhlits L, et al. Effectiveness of active physical training as treatment for long-standing adductor-related groin pain in athletes: randomised trial. *Lancet*. Feb 06 1999; 353(9151): 439-43. PMID 9989713
7. Hölmich P, Nyvold P, Larsen K. Continued significant effect of physical training as treatment for overuse injury: 8- to 12-year outcome of a randomized clinical trial. *Am J Sports Med*. Nov 2011; 39(11): 2447-51. PMID 21813441
8. Meyers WC, McKechnie A, Philippon MJ, et al. Experience with "sports hernia" spanning two decades. *Ann Surg*. Oct 2008; 248(4): 656-65. PMID 18936579
9. Thorborg K, Hölmich P, Christensen R, et al. The Copenhagen Hip and Groin Outcome Score (HAGOS): development and validation according to the COSMIN checklist. *Br J Sports Med*. May 2011; 45(6): 478-91. PMID 21478502
10. Pajanen H, Brinck T, Hermunen H, et al. Laparoscopic surgery for chronic groin pain in athletes is more effective than nonoperative treatment: a randomized clinical trial with magnetic resonance imaging of 60 patients with sportsman's hernia (athletic pubalgia). *Surgery*. Jul 2011; 150(1): 99-107. PMID 21549403
11. Ekstrand J, Ringborg S. Surgery versus conservative treatment in soccer players with chronic groin pain: A prospective randomised study in soccer players. *Eur J Sports Traumatol Rel Res*. 2001; 23: 141-145.
12. Ahumada LA, Ashruf S, Espinosa-de-los-Monteros A, et al. Athletic pubalgia: definition and surgical treatment. *Ann Plast Surg*. Oct 2005; 55(4): 393-6. PMID 16186706
13. Steele P, Annear P, Grove JR. Surgery for posterior inguinal wall deficiency in athletes. *J Sci Med Sport*. Dec 2004; 7(4): 415-21; discussion 422-3. PMID 15712496
14. Pajanen H, Syvähuoko I, Airo I. Totally extraperitoneal endoscopic (TEP) treatment of sportsman's hernia. *Surg Laparosc Endosc Percutan Tech*. Aug 2004; 14(4): 215-8. PMID 15472551
15. Kumar A, Doran J, Batt ME, et al. Results of inguinal canal repair in athletes with sports hernia. *J R Coll Surg Edinb*. Jun 2002; 47(3): 561-5. PMID 12109611
16. Irshad K, Feldman LS, Lavoie C, et al. Operative management of "hockey groin syndrome": 12 years of experience in National Hockey League players. *Surgery*. Oct 2001; 130(4): 759-64; discussion 764-6. PMID 11602909
17. Roos MM, Bakker WJ, Goedhart EA, et al. Athletes with inguinal disruption benefit from endoscopic totally extraperitoneal (TEP) repair. *Hernia*. Jun 2018; 22(3): 517-524. PMID 29383598

18. Meuzelaar RR, Visscher L, den Hartog FPJ, et al. Athletes treated for inguinal-related groin pain by endoscopic totally extraperitoneal (TEP) repair: long-term benefits of a prospective cohort. *Hernia*. Oct 2023; 27(5): 1179-1186. PMID 37391498
19. Kopelman D, Kaplan U, Hatoum OA, et al. The management of sportsman's groin hernia in professional and amateursoccer players: a revised concept. *Hernia*. Feb 2016; 20(1): 69-75. PMID 25380561
20. American Academy of Orthopaedic Surgeons, Wilkerson R. OrthoInfo: Sports Hernia (Athletic Pubalgia). 2022; <http://orthoinfo.aaos.org/topic.cfm?topic=A00573>. Accessed January 6, 2025.
21. American College of Occupational and Environmental Medicine. Hip and Groin Disorders. 2019; <https://www.dir.ca.gov/dwc/DWCPropRegs/MTUS-Evidence-Based-Updates-August2019/Final-Regulations/Hip-Groin-DisordersGuidelines.pdf.pdf>. Accessed January 5, 2025.

**CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS**

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

