MEDICAL POLICY

POLICY TITLE	SURGERY FOR GROIN PAIN IN ATHLETES
POLICY NUMBER	MP 1.163

CLINICAL BENEFIT	☐ MINIMIZE SAFETY RISK OR CONCERN. ☒ MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. ☐ ASSURE APPROPRIATE LEVEL OF CARE. ☐ ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. ☐ ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. ☐ ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	**8/1/2025**

I. POLICY

Surgical treatment of 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 **investigational**. There is insufficient evidence to support a conclusion concerning the general health outcomes or benefits associated with these procedures.

II. PRODUCT VARIATIONS

TOP

This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations as discussed in Section VI. Please see additional information below

FEP PPO - Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at: Medical Policies - Blue Cross and Blue Shield's Federal Employee Program

III. DESCRIPTION/BACKGROUND

TOP

Groin Pain in Athletes

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. In a systematic review involving 1571 patients, Kraeutler et al (2021) found that the most common terminology used to describe the diagnosis was "athletic pubalgia", followed by "sports hernia".

Some believe the groin pain is an occult hernia process, a pre-hernia 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 are 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 has 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 groin pain in athletes has been proposed (see evidence review BCBSA 7.01.118). 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. A 2015 systematic review of 24 studies that examined the co-occurrence of FAI and groin pain in athletes found an overlap of the 2 conditions that ranged from 27% of hockey players to 90% of college football players who presented with hip and groin pain. Surgery for sports-related groin pain has been performed concurrently with treatment of FAI or following FAI surgery if symptoms did not resolve.

Diagnosis

A diagnosis of groin pain in athletes is based primarily on history, physical exam, and imaging. The clinical presentation will generally be a gradual onset of progressive groin pain associated with the activity. A physical exam will not reveal any evidence for a standard inguinal hernia or groin muscle strain. Imaging with magnetic resonance imaging (MRI) or ultrasound is generally done as part of the workup. In addition to the 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.

Treatment

Conservative

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 (see evidence review 2.01.16), or a short corticosteroid burst with taper have also been used.

Surgical

Surgical treatment is typically reserved for patients who have failed at least 3 months of conservative treatment. One approach consists of open or laparoscopic sutured hernia repair with mesh reinforcement of the posterior wall of the inguinal canal. Laparoscopic procedures may use either a transabdominal preperitoneal or an extraperitoneal approach. A variety of musculotendinous defects, nerve entrapments, and inflammatory conditions have been observed with surgical exploration. Meyers et al (2008) have proposed that any of the 17 soft tissues that attach or cross the pubic symphysis can be involved, leading to as many as 26 surgical procedures and 121 different combinations of procedures that address the various core muscle injuries. The objective is to stabilize the pubic joint by tightening or broadening the attachments of various structures to the pubic symphysis and/or by loosening the attachments or other supporting structures via epimysiotomy or detachment.

Because various surgical procedures used to treat sports-related groin pain have reported success, it has been proposed that general fibrosis from any surgery may act to stabilize the anterior pelvis and thus play a role in improved surgical outcomes.

IV. RATIONALE

TOP

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 5000 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.

V. DISCLAIMER

TOP

Capital Blue Cross' medical policies are used to determine coverage for specific medical technologies, procedures, equipment, and services. These medical policies do not constitute medical advice and are subject to change as required by law or applicable clinical evidence from independent treatment guidelines. Treating providers are solely responsible for medical advice and treatment of members. These polices are not a guarantee of coverage or payment. Payment of claims is subject to a determination regarding the member's benefit program and eligibility on the date of service, and a determination that the services are medically necessary and appropriate. Final processing of a claim is based upon the terms of

contract that applies to the members' benefit program, including benefit limitations and exclusions. If a provider or a member has a question concerning this medical policy, please contact Capital Blue Cross' Provider Services or Member Services.

VI. CODING INFORMATION

TOP

Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement. The codes need to be in numerical order.

Investigational; therefore, not covered:

Procedure Codes							
27299	49659	49999					

VII. REFERENCES

TOP

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, Ulnits 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. *Paajanen 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. *Paajanen 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 amateur soccer 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 December 19, 2023.*

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 December 19, 2023

22. Blue Cross Blue Shield Association Medical Policy Reference Manual. 7.01.142, Surgery for Groin Pain in Athletes. February 2025.

VIII. POLICY HISTORY

TOP

MP 1.163	**02/14/2025 Major Review.** New policy adoption.
	06/12/2025 Administrative Update. Removed Benefit Variations Section and updated Disclaimer.

Top