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# Surgery for Groin Pain in Athletes

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<b>Related Policies (if applicable)</b>
None

## Disclaimer

**Carefully check state regulations and/or the member contract.**

Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

## Coverage

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 experimental, investigational and/or unproven.**

## Policy Guidelines

None.

## Description

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.

### **Groin Pain in Athletes**

Groin pain in athletes is a poorly defined condition for which there is no consensus on cause and/or treatment. (1) 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" (2).

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 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. (1) 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. (3)

An association between femoroacetabular impingement (FAI) and groin pain in athletes has been proposed (see Medical Policy SUR705.029). 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 collegiate football players who presented with hip and groin pain. (4) 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 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 exclusion of other sources of lower abdominal and groin pain (e.g., stress fractures, FAI, labral tears), imaging may identify injury to the soft tissues of the groin and abdominal wall. (5)

## 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 program (PT) that focused on strength and coordination of core muscles, particularly adductors, or to standard PT without active training. (6) At 4 months posttreatment, 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. (7) For in-season professional athletes, injections of corticosteroid or platelet-rich plasma (see Medical Policy RX501.101), 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) has 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. (8) 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.

### **Regulatory Status**

Treatment of sports-related groin pain is a surgical procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration.

## **Rationale**

This medical policy was created in July 2015 and has been updated regularly with searches of the PubMed database. The most recent literature update was performed through January 2, 2023.

Medical policies assess the clinical evidence to determine whether the use of a technology improves the net health outcome. Broadly defined, health outcomes are length of life, quality of life, and ability to function including benefits and harms. Every clinical condition has specific outcomes that are important to patients and to managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of a technology, 2 domains are examined: the relevance and the quality and credibility. To be relevant, studies must represent one or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. Randomized controlled trials are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

Sports-related groin pain has a variable natural history, with an uncertain time course of the disorder. In addition, pain and functional ability are subjective outcomes and, thus, may be particularly susceptible to placebo effects. Because of these factors, controlled trials are essential to demonstrate the clinical effectiveness of surgical treatment of athletic pubalgia compared with alternatives such as continued medical management.

In 2015, a consensus report called the Doha agreement recommended use of specific diagnoses of adductor-related, iliopsoas-related, inguinal-related, or pubic-related groin pain in place of athletic pubalgia or sportsman's hernia. (3) However, these terms have yet to be routinely used in the published literature. Because it is not possible to determine which patient subgroups were studied, the terminology from the published reports is used. The only validated patient-reported outcome measure for pain and dysfunction in the groin area in young and middle-aged patients that were identified in the Doha report is the Copenhagen Hip and Groin Outcome Score. (9)

## **Mesh Reinforcement**

### Clinical Context and Therapy Purpose

The purpose of a mesh reinforcement is to provide a treatment option that is an alternative to or an improvement on existing therapies for patients with sports-related groin pain.

The following PICO was used to select literature to inform this policy.

### *Populations*

The relevant population of interest is individuals with sports-related groin pain.

### *Interventions*

The therapy being considered is mesh reinforcement.

### *Comparators*

The following therapies are currently being used to treat sports-related groin pain: conservative treatment such as rest, icing, nonsteroidal anti-inflammatory drugs, and rehabilitation exercises.

### *Outcomes*

The general outcomes of interest are symptoms, functional outcomes, and treatment-related morbidity.

Mesh reinforcement is recommended as an option to treat groin pain resistant to conservative therapy for at least 3 months. Follow-up in the available literature ranges from 3 to 12 months; follow-up should be a minimum of 3 months.

### Study Selection Criteria

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs.
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

### Randomized Controlled Trials (RCTs)

Paajanen et al. (2011) reported on a multicenter RCT comparing surgical treatment and conservative therapy in 60 athletes who had suspected sports hernia. (10) Of the 60 athletes (including 31 national-level soccer players), 36 (60%) were totally disabled from their sport and 24 (40%) had a marked limitation in training and competing. For inclusion in the trial, the location of pain had to be rostral to the inguinal ligament in the deep inguinal ring at palpation or at the insertion point of the adductor tendons. Exclusion criteria were isolated tendonitis of the adductor muscles or tendons without groin pain rostral to the inguinal ligament, obvious inguinal hernias, or suspicion of inguinal nerve entrapment. Participants had to have the desire to continue sports at the same level as before the groin injury. Pubic bone marrow edema was identified by magnetic resonance imaging (MRI) in 58% of patients. For participants (38%) who had a normal MRI in the pubic area, the pain was attributed to insufficiency of the posterior wall of the inguinal canal. After at least 3 months of groin symptoms, patients were randomized to surgical or conservative treatment groups. Conservative treatment included at least 2 months of active physical therapy (PT) that focused on improving coordination and strength of core muscles, along with corticosteroid injections and oral anti-inflammatory analgesics.

Surgical treatment consisted of laparoscopic total extraperitoneal repair with mesh placed behind the pubic bone and/or posterior wall of the inguinal canal. Ten percent of the patients also underwent open tenotomy of the adductor magnus or longus. Of the 30 surgically treated athletes, 27 (90%) returned to sports activities by 3 months compared with 8 (27%) of the nonoperative group. At 1, 3, 6, and 12 months after treatment, visual analog scale (VAS) scores for pain were significantly lower in the surgically treated group ( $p < 0.001$ ). At 12 months, mean VAS scores for pain were less than 2 in both groups. However, among the 30 patients assigned to the conservative treatment group, 7 (23%) crossed over to surgery after 6 months with successful return to sport, 4 (13%) discontinued their sport of choice, and 16 (53%) were left with disabling symptoms after 12 months but chose not to undergo surgery.

A RCT by Ekstrand and Ringborg (2001) randomized 66 male soccer players to hernioplasty plus neurotomy ( $n=17$ ), physical therapy ( $n=14$ ), strength training of abdominal muscles ( $n=18$ ), or a no treatment control ( $n=17$ ). (11) All patients had an incipient hernia determined by herniography and/or positive nerve block test of the ilioinguinal or iliohypogastric nerves. The VAS scores for pain were assessed at 3 and 6 months during coughing, sit-ups, jogging, kicking, and sprinting. The VAS scores for pain in the control, physical therapy, and training groups were generally unchanged at 3 and 6 months, although results were analyzed using nonparametric tests instead of the more appropriate repeated-measures or mixed-effects analysis. The VAS scores improved significantly more for the surgery group than for the 3 other groups ( $p < 0.01$ ). Strengths of this study included the active comparison groups and careful selection of patients. However, results are difficult to interpret due to the combined surgical procedure of hernioplasty plus neurotomy.

### Observational Studies

Nonrandomized comparative and uncontrolled studies can sometimes provide useful information on health outcomes but are prone to biases such as noncomparability of treatment groups, the placebo effect, and variable natural history of the condition. A number of observational series have reported on surgical outcomes. (8, 12-16) However, these studies enrolled variable patient populations and used different surgical techniques. All studies reported that a high percentage of patients returned to full sports activities, but there were no control groups for comparison.

Kopelman et al. (2016) reported on a prospective series of 246 male patients with chronic groin pain. (17) All patients underwent ultrasound, and 98 also underwent MRI. Of the 246 patients, 209 underwent conservative treatment with rest and non-steroidal anti-inflammatory drugs (NSAIDs), after which 51 (21%) of 246 underwent inguinal surgery. Another 37 (15%) patients were diagnosed by imaging with non-inguinal pathologies such as inflammation of the pubic bone and symphysis pubis, rectus abdominis muscles, and hip joint pathologies. Of the 51 who underwent surgery (mesh repair, oblique aponeurosis release, neurolysis), a direct or indirect hernia was observed in 18 (35%) patients. In the remainder (65%), no abnormalities were found. There were 2 surgical failures, and all other patients returned to full sports activity within 4.3 weeks. In this series, most patients did not require surgery, and the authors

commented that pubic and suprapubic symptomatology should be differentiated from inguinal and adductor complaints.

### Section Summary: Mesh Reinforcement

The evidence on mesh reinforcement for inguinal-related groin pain includes 2 RCTs and a large prospective series. Results of the RCTs have suggested that, in carefully selected patients, mesh reinforcement results in an earlier return to play. However, a 2016 large prospective series indicated that only about 20% of patients with chronic groin pain benefit from inguinal surgery. Selection of patients in this series excluded patients with non-inguinal pathology and failure of a conservative treatment trial of complete rest and NSAIDs. Further study is needed to corroborate these results and to define the patient population that would benefit from this treatment approach.

### **Surgical Repair or Release of Soft Tissue**

#### Clinical Context and Therapy Purpose

The purpose of surgical repair or release of soft tissue is to provide a treatment option that is an alternative to or an improvement on existing therapies for patients with sports-related groin pain.

The following PICO was used to select literature to inform this policy.

#### *Populations*

The relevant population of interest is individuals with sports-related groin pain.

#### *Interventions*

The therapy being considered is surgical repair or release of soft tissue.

#### *Comparators*

The following therapies are currently being used to treat sports-related groin pain: conservative treatment such as rest, icing, nonsteroidal anti-inflammatory drugs, and rehabilitation exercises.

#### *Outcomes*

The general outcomes of interest are symptoms, functional outcomes, and treatment-related morbidity.

There is limited literature available on surgical repair or release of soft tissue as an option to treat groin pain. Follow-up in the available literature was 7 weeks. However, follow-up for mesh surgery should be a minimum of 3 months; it follows that surgery or release of soft tissue for groin pain would also require a longer follow-up.

### Study Selection Criteria

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs.
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

### Observational Studies

There is more limited literature on the repair or release of soft tissue. An example of a large case series is a retrospective review by Meyers et al. (2008) that reported on the surgical treatment of 5218 patients diagnosed with athletic pubalgia over the prior 2 decades. (8) Initially, diagnoses were made by history and physical examination, with MRI used in the more recent years. Referrals increased from 3 per week in 1987 to 25 per week in 2008. Patients treated with surgery ranged from 11 to 71 years of age; women comprised about 8% of the group. The surgeries involved 26 different procedures of reattachments and/or releases of soft tissues that normally attach or cross the pubic symphysis. The authors reported that 95.3% of the patients returned to full play within 3 months of surgery. For a subgroup of athletes treated in-season, 90% were able to return to full play within 3 weeks. Adverse surgery-related events included dysesthesias (0.3%), significant hematomas (0.3%), and vein thrombosis (0.1%), all of which resolved within 1 year.

### Section Summary: Surgical Repair or Release of Soft Tissue

An alternative approach to the treatment of groin pain in athletes has been reported in a large case series. This retrospective study included a review of medical records spanning 2 decades and over 5000 cases. There was no information on prior conservative treatments. More recent reports on these procedures from other institutions are lacking.

### **Summary of Evidence**

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 and 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.

### Practice Guidelines and Position Statements

#### American Academy of Orthopaedic Surgeons (AAOS)

Reviewed in 2022, the American Academy of Orthopaedic Surgeons has an online educational website on sports hernia (athletic pubalgia). (18) The Academy indicated that a sports hernia is a painful soft tissue injury that occurs in the groin area. The Academy advised patients that: “In many cases, 4 to 6 weeks of physical therapy will resolve any pain and allow an athlete to return to sports. If, however, the pain comes back when you resume sports activities, you may need to consider surgery to repair the torn tissues.”

#### American College of Occupational and Environmental Medicine

The American College of Occupational and Environmental Medicine (ACOEM) released a guideline on hip and groin disorders in 2019. (19) For the treatment of groin strains, sports hernias, or adductor-related groin pain, the ACOEM recommends work and activity modifications (strength of evidence [SOE]: recommended, insufficient evidence; level of confidence [LOC]: moderate), nonsteroidal anti-inflammatory drugs (SOE: recommended, insufficient evidence; LOC: moderate), and ice or heat or wraps (SOE: recommended, insufficient evidence; LOC: low).

### Ongoing and Unpublished Clinical Trials

A search of ClinicalTrials.gov in January 2023 did not identify any ongoing or unpublished trials that would likely influence this policy.

## Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member’s benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

<b>CPT Codes</b>	27299, 49659, 49999
<b>HCPCS Codes</b>	None

\*Current Procedural Terminology (CPT®) ©2022 American Medical Association: Chicago, IL.

## References

1. Litwin DE, Sneider EB, McEnaney PM, et al. Athletic pubalgia (sports hernia). *Clin Sports Med*. Apr 2011; 30(2):417-434. 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):768-774. 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):823-830. 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*. 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: randomized trial. *Lancet*. Feb 06 1999; 353(9151):439-443. 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*. 2011; 39(11):2447-2451. PMID 21813441
8. Meyers WC, McKechnie A, Philippon MJ, et al. Experience with sports hernia spanning two decades. *Ann Surg*. 2008; 248(4):656-665. PMID 18936579
9. Thorborg K, Holmich 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):478-491. 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 randomized 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):393-396. 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):415-421; discussion 422-423. PMID 15712496
14. Paajanen H, Syvahuoko I, Airo I. Totally extraperitoneal endoscopic (TEP) treatment of sportsman's hernia. *Surg Laparosc Endosc Percutan Tech*. 2004; 14(4):215-218. 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):561-565. 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):759-764; discussion 764-766. PMID 11602909
17. 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
18. American Academy of Orthopaedic Surgeons. Wilkerson R. OrthoInfo: Sports Hernia (Athletic Pubalgia) (2022). Available at <<https://www.orthoinfo.aaos.org>> (accessed January 2, 2023).
19. American College of Occupational and Environmental Medicine. Hip and Groin Disorders (2019). Available at <<https://www.dir.ca.gov>> (accessed October 11, 2023).

## Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) **does not** have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been **developed** since this medical policy document was written. See Medicare's National Coverage at <<http://www.cms.hhs.gov>>.

## Policy History/Revision

Date	Description of Change
12/01/2023	Document updated with literature review. Coverage unchanged. Added/updated reference 2, 18, and 19; others removed.
05/15/2022	Reviewed. No changes.
07/15/2021	Document updated with literature review. Coverage unchanged. References updated, none add
06/15/2020	Reviewed. No changes.
10/01/2019	Document updated with literature review. Coverage unchanged. Added the following reference: 17.
06/15/2018	Reviewed. No changes.
07/15/2017	Document updated with literature review. Editorial change to Coverage statement: from "athletic pubalgia" to "groin pain in athletics". Title changed from: Surgery for Athletic Pubalgia.
07/15/2016	Reviewed. No changes.
07/01/2015	New medical document. Surgical treatment of athletic pubalgia (also known as 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 experimental, investigational and/or unproven.
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