



Periacetabular Osteotomy/Surgical Dislocation – Single Service

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Diseases & Disorders of the Musculoskeletal System

Guideline Name: Periacetabular Osteotomy/Surgical Dislocation (Single Service)

Literature review current through: 5/28/2024

Document last updated: 5/28/2024

Type: Adult (18+ yo) | Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Periacetabular Osteotomy/Surgical Dislocation

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Periacetabular osteotomy (Bernese, Ganz) treats developmental hip deformities, such as dysplasia. The goal is to improve the mechanics of the hip joint and delay the development of degenerative arthritis. This procedure may be indicated for a retroverted acetabulum. A trochanteric osteotomy may be performed with surgical hip dislocation.¹
- **Exclusions:** None.

Medical Necessity Criteria

Indications

- **Periacetabular osteotomy/surgical dislocation** is considered appropriate if **ALL** of the following are **TRUE**¹⁻³:
- ◆ The patient has **ANY** of the following clinical symptoms:
 - Pain in hip, groin, buttocks, or thigh; **OR**
 - Clicking, locking, catching, or giving way; **OR**
 - Hip instability; **OR**
 - Discomfort or pain that worsens with activities such as prolonged sitting, prolonged standing, walking, climbing stairs, or running⁴; **OR**
 - Stiffness; **OR**
 - Limping⁵; **AND**
 - ◆ The patient has **ANY** of the following physical examination findings:
 - Flexed knee gait while walking; **OR**
 - Positive impingement test; **OR**
 - FADIR* test produces hip pain; **OR**
 - FABER** test produces hip pain; **OR**
 - Limited hip flexion and hip abduction; **OR**
 - Limited internal rotation with the hip at 90° of flexion; **AND**

- ◆ Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; **AND**
 - Physical therapy; **AND**
- ◆ The patient has **ANY** of the following¹:
 - Bony morphology that prevents arthroscopic treatment; **OR**
 - Surgical dislocation of the hip is indicated to treat intra-articular and bony pathology; **AND**
- ◆ No evidence of advanced degenerative osteoarthritis (Tönnis Grade 2 to 3); **AND**
- ◆ Advanced imaging indicates femoroacetabular impingement (FAI).

NOTE:

- **FADIR (Flexion, Adduction, and Internal Rotation) test:** The test begins with a supine patient. The examiner raises the patient's leg with their hip flexed to 90° and knee flexed to 90°. The examiner then adducts and internally rotates the hip. A positive result occurs when the patient reports groin pain.
- **FABER (Flexion, Abduction, and External Rotation) test:** A test to assess a suspected labral tear. The examination begins with a supine patient. The examiner places the patient in a figure-4 position with their hip flexed and abducted with the lateral ankle resting on the contralateral thigh proximal to the knee. The examiner then applies gentle downward force against the knee of the abducted leg. A positive result occurs when the patient reports groin pain on the affected side⁶

Non-Indications

- **Periacetabular osteotomy/surgical dislocation** is **NOT** considered appropriate if **ANY** of the following is **TRUE**³:
- ◆ Severe osteoarthritis (Tönnis Grade 2 or 3, see note below²); **OR**
 - ◆ Subluxation resulting in a femoral head within a neoacetabulum; **OR**
 - ◆ Mismatch between a smaller acetabular radius and femoral head; **OR**
 - ◆ Severe restriction in range of motion.

NOTE:

Tönnis Grading Scale of Hip Osteoarthritis	
Grade	Radiographic Features
0	-No signs of osteoarthritis
1	-Slight narrowing of joint space -Slight lipping at joint margin -Slight sclerosis of the femoral head or acetabulum
2	-Small cysts in the femoral head or acetabulum -Increasing narrowing of joint space -Moderate loss of sphericity of the femoral head
3	-Large cysts -Severe narrowing or obliteration of joint space -Severe deformity of the femoral head -Avascular necrosis

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
27146	Osteotomy of acetabular bone; Osteotomy of iliac bone; Osteotomy of innominate bone
27299	Unlisted procedure on hip joint; Unlisted procedure on pelvis

Medical Evidence

Zebala et al. (2007) completed a systematic review of the literature regarding anterior femoroacetabular impingement. The usage of the periacetabular osteotomy (PAO) is discussed as a reconstructive option for the management of acetabular dysplasia, and the group stated that severe acetabular retroversion is the main indication for a PAO in the treatment of impingement. They cite a study where 26 of 29 patients with symptomatic FAI from acetabular retroversion reported excellent outcomes post osteotomy. In the writer's practice, the procedure is generally combined with an anterior arthrotomy and osteochondroplasty as necessary.¹

Kamath (2016) describes Bernese periacetabular osteotomy for hip dysplasia. The procedure, though technically demanding, has well-demonstrated success in mid- and long-term clinical studies over the past 30 years. It is stated that pelvic osteotomy is a preferred alternative to arthroplasty in young, active patients with correctable structural hip deformities.³

Coobs and colleagues (2015) reviewed periacetabular osteotomy for hip dysplasia in the young adult hip patient. In recent years, obesity has been found to contribute significantly to risk of major complications with PAO surgery. Obese patients demonstrated a 22.3% risk of major postoperative complications compared with 3.1% of non-obese patients. A systematic review of 13 studies involving 626 hips with 2-5 year follow-up yielded reliable deformity correction with PAO and significant improvements in hip function.⁵

References

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Clinical Guideline Revision History/Information

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