

Medical Treatment Guidelines

Washington State Department of Labor and Industries

Review criteria for knee surgery

Procedure	Conservative care	Clinical findings		
		Subjective	Objective	Care
Anterior cruciate ligament (ACL) repair.	(Not required for acute injury with hemarthrosis). Physical therapy. OR Brace. AND	Pain alone is not an indication for surgery. Instability of the knee, described as “buckling or give way.” OR Significant effusion at the time of injury. OR Description of injury indicates rotary twisting or hyperextension incident. AND	Positive Lachman’s sign. OR Positive pivot shift. OR Positive anterior drawer. OR Positive KT 1000: >3-5 mm = + 1. >5-7 mm = + 2. >7 mm = + 3. AND	(Not required if acute effusion, hemarthrosis, and instability; or documented history of effusion, hemarthrosis, and instability). ACL disruption on: MRI. OR Arthroscopy. OR Arthrogram.
Lateral retinacular release. OR patellar tendon realignment. OR maquet procedure.	Physical therapy (not required for acute patellar dislocation with associated intra-articular fracture). OR Medications. AND	Knee pain with sitting. OR Pain with patellar/femoral movement. OR Recurrent dislocations. AND	Lateral tracking of the patella. OR Recurrent effusion. OR Patellar apprehension. OR Synovitis with or without crepitus. OR Increased Q angle > 15 degrees. AND	Abnormal patellar tilt on: X-ray, CT, or MRI.

Reference: Date Introduced: December 2003; OAT procedure updated October 2012.

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Procedure	Conservative care	Clinical findings		
		Subjective	Objective	Imaging
<p>Knee joint replacement.</p> <p>If only 1 compartment is affected, a unicompartamental or partial replacement is indicated.</p> <p>If 2 of the 3 compartments are affected, a total joint replacement is indicated.</p>	<p>Medications. OR Visco supplementation injections. OR Steroid injection.</p> <p style="text-align: right;">AND</p>	<p>Limited range of motion. OR Night time joint pain. OR No pain relief with conservative care.</p> <p style="text-align: right;">AND</p>	<p>Over 50 years of age. AND Body Mass Index of less than 35.</p> <p style="text-align: right;">AND</p>	<p>Osteoarthritis on: Standing x-ray. OR Arthroscopy.</p>

Procedure	Conservative care	Subjective	Objective	Imaging
<p>Diagnostic arthroscopy.</p>	<p>Medications. OR Physical therapy.</p> <p style="text-align: right;">AND</p>	<p>Pain and functional limitations continue despite conservative care.</p>	<p style="text-align: right;">AND</p>	<p>Imaging is inconclusive.</p>
<p>Meniscectomy or meniscus repair.</p>	<p>(Not required for locked/blocked knee). Physical therapy. OR Medication. OR Activity modification.</p> <p style="text-align: right;">AND</p>	<p>Joint pain. OR Swelling. OR Feeling of give way. OR Locking, clicking, or popping.</p> <p style="text-align: right;">AND</p>	<p>Positive Mc Murray's sign. OR Joint line tenderness. OR Effusion. OR Limited range of motion. OR Locking, clicking, or popping. OR Crepitus.</p> <p style="text-align: right;">AND</p>	<p>(Not required for locked/blocked knee). Meniscal tear on MRI.</p>

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Procedure	Conservative care	Subjective	Objective	Imaging
<p>Chondroplasty (Shaving or debridement of an articular surface).</p>	<p>Medication. OR Physical therapy. AND</p>	<p>Joint pain. AND Swelling. AND</p>	<p>Effusion. OR Crepitus. OR Limited ROM.</p>	
<p>Subchondral drilling or microfracture.</p>	<p>Medication. OR Physical therapy.</p>	<p>Joint pain. AND Swelling.</p>	<p>Small full thickness chondral defect on the weight bearing portion of the medial or lateral femoral condyle. AND Knee is stable with intact, fully functional menisci and ligaments. AND Normal knee alignment. AND Normal joint space. AND Ideal age 45 or younger.</p>	<p>Chondral defect on the weight bearing portion of the medial or lateral femoral condyle on: MRI. OR Arthroscopy.</p>

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PROCEDURE	CONSERVATIVE CARE	Clinical Findings		
		SUBJECTIVE	OBJECTIVE	IMAGING
Osteochondral autograft/allograft transplantation (mosaicplasty or OAT procedure for the knee)	Medication OR Physical therapy	AND Joint pain AND Swelling	AND Failure of previous subchondral drilling or microfracture Single, large full thickness chondral defect that measures less than 3 cm in diameter and 1 cm in bone depth on the weight bearing portion of the medial or lateral femoral condyle AND Knee is stable with intact, fully functional menisci and ligaments AND Normal knee alignment AND Normal joint space AND Body mass index of less than 35 AND Ideal age 50 or younger AND Excluding malignancy, degenerative and inflammatory arthritis in the joint	AND Single large chondral defect on the weight bearing portion of the medial or lateral femoral condyle on: MRI OR Arthroscopy

Body mass index

The equation for calculating the body mass index (BMI) = (Weight in pounds ÷ Height in inches ÷ Height in inches) x 703. For example, a person weighing 210 pounds and 6 feet tall would have a BMI of (210 pounds ÷ 72 inches ÷ 72 inches) x 703 = 28.5.

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Procedure	Conservative care	Subjective	Objective	Imaging
Autologous chondrocyte implantation (ACI).	Physical therapy for a minimum of 2 months.	IW is capable and willing to follow the rehabilitation protocol. AND	Failure of traditional surgical interventions (i.e., microfracture, drilling, abrasion, osteochondral graft). Debridement alone does not constitute a traditional surgical intervention for ACI. AND Single, clinically significant, lesion that measures between 1 to 10 sq.cm in area that affects a weight-bearing surface of the medial femoral condyle or the lateral femoral condyle. AND Full-thickness lesion (Modified Outerbridge Grade III-IV) that involves only cartilage. AND Knee is stable with intact, fully functional menisci and ligaments. AND Normal knee alignment. AND Normal joint space. AND IW is less than 60 years old. AND Body Mass Index of less than 35. AND	Chondral defect on the weight bearing surface of the medial or lateral femoral condyle on: MRI. OR Arthroscopy.

ACI EXCLUSION CRITERIA

ACI is not a covered procedure in **any** of the following circumstances:

- Lesion that involves any portion of the patellofemoral articular cartilage, bone, or is due to osteochondritis dissecans.
- A “kissing lesion” or Modified Outerbridge Grade II, III, or IV exists on the **opposite** tibial surface.
- Mild to severe localized or diffuse arthritic condition that appears on standing x-ray as joint space narrowing, osteophytes, or changes in the underlying bone.
- Unhealthy cartilage border; the synovial membrane in the joint may be used as a substitute border for up to ¼ of the total circumference.
- Prior total meniscectomy of either compartment in the affected knee. Must have at least 1/3 of the posterior meniscal rim.
- History of anaphylaxis to gentamycin or sensitivity to materials of bovine origin.
- Chondrocalcinosis is diagnosed during the cell culture process.

Modified outerbridge classification

I	Articular cartilage softening.
II	Chondral fissures or fibrillation < 1.25 cm in diameter.
III	Chondral fibrillation > 1.25 cm in diameter, (“crabmeat changes”).
IV	Exposed subchondral bone.

Additional coverage information. Surgeon should have performed or assisted in 5 or more ACI procedures; or will be performing the ACI under the direct supervision and control of a surgeon who has experience with 5 ACI procedures.

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Inclusion criteria

Procedure	Conservative care	Subjective	Objective	Imaging
Meniscal allograft transplantation.	Physical therapy. OR NSAID. OR Activity modification. AND	Capable and willing to follow the rehabilitation protocol. AND Knee pain that has not responded to conservative treatment. AND	Previous meniscectomy with at least two-thirds of the meniscus removed. AND If Modified Outerbridge Scale Grade III then debridement must first produce an articular surface sufficiently free of irregularities to maintain the integrity of the transplanted meniscus. AND Stable knee with intact ligaments, normal alignment, and normal joint space. AND Ideal age 20-45 years (too young for total knee). AND Body Mass Index of less than 35. AND	Articular cartilage in the affected compartment demonstrates a chondrosis classified by the Modified Outerbridge Scale as Grade I, Grade II, or Grade III.

MENISCAL ALLOGRAFT TRANSPLANTATION EXCLUSION CRITERIA

Meniscal Allograft Transplantation is not a covered procedure in **any** of the following circumstances:

- Mild to severe localized or diffuse arthritic condition that appears on standing x-ray as joint space narrowing, osteophytes, or changes in the underlying bone.
- Articular cartilage in the affected compartment demonstrates a chondrosis classified by the Modified Outerbridge Scale as Grade III that has not undergone debridement; Grade III with debridement that has not produced an articular surface that can maintain the integrity of the transplanted meniscus; or Grade IV.

Modified outerbridge classification

I	Articular cartilage softening.
II	Chondral fissures or fibrillation < 1.25 cm in diameter.
III	Chondral fibrillation > 1.25 cm in diameter, (“crabmeat changes”).
IV	Exposed subchondral bone.

Body mass index

The equation for calculating the body mass index (BMI) = (Weight in pounds ÷ Height in inches ÷ Height in inches) x 703. For example, a person weighing 210 pounds and 6 feet tall would have a BMI of (210 pounds ÷ 72 inches ÷ 72 inches) x 703 = 28.5.