

# Medical Treatment Guidelines

Washington State Department of Labor and Industries

## Review criteria for knee surgery

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

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

# Medical Treatment Guidelines

Washington State Department of Labor and Industries

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

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

# Medical Treatment Guidelines

Washington State Department of Labor and Industries

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

# Medical Treatment Guidelines

## Washington State Department of Labor and Industries

PROCEDURE	CONSERVATIVE CARE	Clinical Findings		
		SUBJECTIVE	OBJECTIVE	IMAGING
Osteochondral autograft/allograft transplantation (mosaicplasty or OAT procedure for the knee)	Medication <b>OR</b> Physical therapy	AND Joint pain <b>AND</b> 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 <b>AND</b> Knee is stable with intact, fully functional menisci and ligaments <b>AND</b> Normal knee alignment <b>AND</b> Normal joint space <b>AND</b> Body mass index of less than 35 <b>AND</b> Ideal age 50 or younger <b>AND</b> 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 <b>OR</b> 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.

# Medical Treatment Guidelines

Washington State Department of Labor and Industries

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

# Medical Treatment Guidelines

## Washington State Department of Labor and Industries

### Inclusion criteria

Procedure	Conservative care	Subjective	Objective	Imaging
<b>Meniscal allograft transplantation.</b>	Physical therapy. <b>OR</b> NSAID. <b>OR</b> Activity modification.  <b>AND</b>	Capable and willing to follow the rehabilitation protocol. <b>AND</b> Knee pain that has not responded to conservative treatment.  <b>AND</b>	Previous meniscectomy with at least two-thirds of the meniscus removed. <b>AND</b> 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. <b>AND</b> Stable knee with intact ligaments, normal alignment, and normal joint space. <b>AND</b> Ideal age 20-45 years (too young for total knee). <b>AND</b> Body Mass Index of less than 35.  <b>AND</b>	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.