Allograft Transplantation of the Knee

Medical Coverage Policy

Effective Date: 01/26/2012
Revision Date: 01/26/2012
Review Date: 01/26/2012
Policy Number: CLPD-0453-006

Change Summary: Updated Disclaimer, Description, Coverage Limitations, Background, Provider Claims Codes, Medical Terms, References

Humana's documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to http://apps.humana.com/tad/tad_new/home.aspx to verify that this is the current version before utilizing.

<table>
<thead>
<tr>
<th>Disclaimer</th>
<th>Medical Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Provider Claims Codes</td>
</tr>
<tr>
<td>Coverage Determination</td>
<td>Medical Terms</td>
</tr>
<tr>
<td>Background</td>
<td>References</td>
</tr>
</tbody>
</table>

Disclaimer
State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, take precedence over clinical policy and must be considered first in determining eligibility for coverage. Coverage may also differ for our Medicare and/or Medicaid members based on any applicable Centers for Medicare & Medicaid Services (CMS) coverage statements including National Coverage Determinations (NCD), Local Medical Review Policies (LMRP), and/or Local Coverage Determinations. See the CMS web site at http://www.cms.hhs.gov/. The member's health plan benefits, in effect on the date services are rendered, must be used. Clinical policy is not intended to preempt the judgment of the reviewing Medical Director or dictate to providers how to practice medicine. Providers are expected to exercise their medical judgment in rendering the most appropriate care. Identification of selected brand names of devices, tests, and procedures in a Medical Coverage Policy are for reference only and is not an endorsement of any one device, test or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any shape or form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from Humana Inc.

Description
Allograft tissue for knee ligament reconstruction may be used as an alternative to autografts. Allograft tissue is obtained from cadaver donors and then freeze-dried or frozen. In multiple ligaments, knee reconstruction allograft tissues are usually preferred over autograft tissue because of the need for more than one ligament graft.¹ Ligaments of the knee include the anterior cruciate ligament (ACL), posterior cruciate ligament (PCL), medial collateral ligament, and the lateral collateral ligament.

Meniscal allograft transplantation is a surgical technique for restoring knee function in patients with destroyed or absent menisci (knee cartilage) by replacing the damaged or destroyed meniscus with allograft tissue (tissue obtained from a suitable cadaver donor). The tissues are frozen and matched by size to the patient. The allograft is inserted into the knee joint and held in place with pins or screws.
The procedure may be performed by an arthroscopic approach or by open incision, and may be done alone or in tandem with other reconstructive knee procedures. It is most often performed on an outpatient basis, although if done in conjunction with other procedures it may necessitate a one to two day hospital stay.

Collagen meniscus implants, also known as collagen scaffold, or Menaflex, are bioresorbable, primarily bovine type 1 collagen. This product was designed as a tissue-engineered scaffold to support the generation of new meniscus-like tissue. The Food and Drug Administration (FDA) has announced that they are rescinding the marketing clearance for Menaflex as it has been concluded that the device is intended to be used for different purposes and is technologically dissimilar from devices already on the market. It was cleared for marketing in December 2008. (See Coverage Limitations).

Humana members MAY be eligible under the Plan for reconstruction of the knee ligaments using allograft tissue when ANY of the following indications are met:

- Existence of a medical condition that prevents the use of autograft tissue (e.g., previous injury or surgery, anatomic abnormality); OR
- Failed reconstruction or revision of a previous surgery; OR
- Multiple ligament reconstruction

Humana members MAY be eligible under the Plan for meniscal allograft transplantation when ALL of the following indications are met:

- Absence or near absence of the meniscus documented by magnetic resonance imaging (MRI) or prior arthroscopy; AND
- Age less than 55 years; AND
- Documented absent or minimal articular changes (Outerbridge* grade II or less); AND
- Knee joint must be stable prior to surgery, or be surgically corrected at the
Humana’s documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to http://apps.humana.com/tad/tad_new/home.aspx to verify that this is the current version before utilizing.

See the DISCLAIMER. All Humana member health plan contracts are NOT the same. All legislation/regulations on this subject may not be included. This document is for informational purposes only.

* Allograft Transplantation of the Knee

Effective Date: 01/26/2012
Revision Date: 01/26/2012
Review Date: 01/26/2012
Policy Number: CLPD-0453-006

Page: 3 of 10

Humana members may NOT be eligible under the Plan for reconstruction of the knee ligaments using allograft tissue or meniscal allograft transplantations for any indications other than those listed above. These technologies are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed use as reported in nationally recognized peer-reviewed medical literature published in the English language.

Humana members may NOT be eligible under the Plan for a collagen meniscus implant (e.g., Menaflex). This technology is considered experimental/investigational as it is not identified as widely used and generally accepted for the proposed use as reported in nationally recognized peer-reviewed medical literature published in the English language.

Note: This criteria for collagen meniscus implants is consistent with the Medicare

time of the allograft; AND

- Normal knee alignment; AND
- Significant knee pain unresponsive to conservative treatment

*Outerbridge classification is a classification system developed to assist with an objective description of chondral damage in the knee. Classifications are from a grade 0 to grade IV.

- Grade 0: normal cartilage
- Grade I: cartilage swelling and softening
- Grade II: less than 50% loss of cartilage thickness
- Grade III: loss of more than 50% of cartilage thickness, but without exposure of subchondral bone
- Grade IV: complete loss of cartilage with subchondral bone exposure.
Allograft Transplantation of the Knee

Effective Date: 01/26/2012
Revision Date: 01/26/2012
Review Date: 01/26/2012
Policy Number: CLPD-0453-006

Page: 4 of 10

You can learn more about injuries to the ACL and the meniscus from the following sites:

- American Academy of Orthopedic Surgeons (AAOS) - [http://www.aaos.org](http://www.aaos.org)

Alternatives to **reconstruction of the knee ligaments using allograft tissue** include, but may not be limited to, the following:

- Reconstruction of the knee ligaments using autograft tissue

To make the best health decision for your individual needs, consult your physician.

Alternatives to **meniscal allograft transplantation** include, but may not be limited to, the following:

- Meniscal and ligament repair
- Meniscectomy (removal of the meniscus)

To make the best health decision for your individual needs, consult your physician.

All provider claims codes surrounding this topic may not be included in the following table:

<table>
<thead>
<tr>
<th>CPT® Code(s)</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>27427</td>
<td>Ligamentous reconstruction (augmentation), knee; extra-articular</td>
<td></td>
</tr>
</tbody>
</table>

See the [DISCLAIMER](http://apps.humana.com/tad/tad_new/home.aspx). All Humana member health plan contracts are NOT the same. All legislation/regulations on this subject may not be included. This document is for informational purposes only.
### Allograft Transplantation of the Knee

Effective Date: 01/26/2012  
Revision Date: 01/26/2012  
Review Date: 01/26/2012  
Policy Number: CLPD-0453-006  
Page: 5 of 10

Humana’s documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to [http://apps.humana.com/tad/tad_new/home.aspx](http://apps.humana.com/tad/tad_new/home.aspx) to verify that this is the current version before utilizing.

<table>
<thead>
<tr>
<th>CPT® Category III Code(s)</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>No code(s) identified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCPCS Code(s)</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>G0428</td>
<td>Collagen meniscus implant procedure for filling meniscal defects (e.g., CMI, collagen scaffold, Menaflex)</td>
<td>Not Covered</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICD-9 Procedure Code(s)</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>81.45</td>
<td>Other repair of the cruciate ligaments</td>
<td></td>
</tr>
<tr>
<td>81.46</td>
<td>Other repair of the collateral ligaments</td>
<td></td>
</tr>
<tr>
<td>81.47</td>
<td>Other repair of knee</td>
<td></td>
</tr>
</tbody>
</table>

### Medical Terms

**Alignment** - An adjustment to a line; arrangement in a straight line.

**Allograft** - Tissue obtained from a suitable cadaver donor.
Allograft Transplantation of the Knee

Effective Date: 01/26/2012
Revision Date: 01/26/2012
Review Date: 01/26/2012
Policy Number: CLPD-0453-006

Page: 6 of 10

Humana’s documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to http://apps.humana.com/tad/tad_new/home.aspx to verify that this is the current version before utilizing.

Anterior Cruciate Ligament - A cruciate ligament of each knee that is attached in front to the more medial aspect of the tibia, that passes upward, backward, and laterally through the middle of the knee crossing the posterior cruciate ligament to attach to the femur, and that functions to prevent hyperextension of the knee and to keep the tibia from sliding forward in relation to the femur.

Arthroscope – An illuminated usually fiber-optic flexible or rigid tubular instrument inserted through a small incision, for visualizing the interior of a joint.

Arthroscopy (Arthroscopic) - Surgical procedure performed via an arthroscope to allow direct visualization of the inside of a joint.

Articular - Pertaining to a joint; specifically, the surfaces of the bones for the joint.

Autograft - A tissue graft obtained from one part of a patient’s body for use on another part.

Bio-resorbable - Materials that can be broken down by the body and that do not require mechanical removal (e.g., sutures).

Bovine - Pertaining to, characteristic of, or derived from the oxen or cattle.

Cadaver - Dead body of a human being.

Cartilage - Tough, elastic, fibrous connective tissue found in various parts of the body, such as joints, outer ear and larynx.

Chondral - Term used when referring to cartilage.

Collagen - The fibrous protein constituent of bone, cartilage, tendon, and other connective tissue.

Conjunction - The act of joining together.

Graft - A portion of living tissue surgically transplanted from one part of an individual to another or from one individual to another, for its adhesion and growth.
Humana’s documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to [http://apps.humana.com/tad/tad_new/home.aspx](http://apps.humana.com/tad/tad_new/home.aspx) to verify that this is the current version before utilizing.

**Lateral Collateral Ligament** - A ligament that connects the lateral epicondyle of the femur with the lateral side of the head of the fibula and that helps to stabilize the knee by preventing lateral dislocation.

**Ligament** - A band of fibrous tissue that connects bones or cartilages, serving to support and strengthen joints.

**Magnetic Resonance Imaging (MRI)** - Non-invasive diagnostic procedure that uses a combination of a large magnet, radio frequencies, and a computer to produce detailed images of organs and other structures within the body.

**Medial Collateral Ligament** - A ligament that connects the medial epicondyle of the femur with the medial condyle and medial surface of the tibia and that helps to stabilize the knee by preventing lateral dislocation.

**Meniscectomy** - Surgical removal of the meniscus of the knee.

**Posterior Cruciate Ligament (PCL)** - A cruciate ligament of each knee that is attached medially in back between the condyles of the tibia, that passes upward and forward through the middle of the knee crossing the anterior cruciate ligament to attach to the medial aspect of the femur. The function of the PCL is to prevent hyperflexion of the knee and to keep the tibia from sliding backward in relation to the femur when the knee is flexed.

**Reconstruct** - To construct or form again.

**Scaffold** - A support, either natural or artificial, that maintains tissue contour.

**Subchondral** - Refers to lying under articular cartilage and containing marrow.

**Tandem** - In association or partnership.

**References**


---


See the [DISCLAIMER](#). All Humana member health plan contracts are **NOT** the same. All legislation/regulations on this subject may not be included. This document is for informational purposes only.
Humana’s documents are updated regularly online. When printed, the version of this document becomes uncontrolled. Do not rely on printed copies for the most up-to-date version. Refer to http://apps.humana.com/tad/tad_new/home.aspx to verify that this is the current version before utilizing.


See the DISCLAIMER. All Humana member health plan contracts are NOT the same. All legislation/regulations on this subject may not be included. This document is for informational purposes only.