

# Keratoconus Management Adjudication Guideline

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Medical

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# 1. Abstract

## 1.1 For Members

Keratoconus is a non-inflammatory disorder of the cornea of with genetic and environmental risk factors. It is characterized by progressive thinning and cone-shaped protrusion of the cornea leading to visual impairment. The vision loss occurs mainly from short-sightedness (myopia) and irregular astigmatism (an imperfection in the curvature of your cornea).

Keratoconus can be managed both medically (optical) and surgically depending on the grade of the disorder.

Daman covers optical and surgical management for all plans that have the optical and surgical benefit respectively, subject to policy terms and conditions.

## 1.2 For Medical Professionals

### Management vs. Stages of keratoconus:

- For stage I, II and III:
  - Refractive:
    - Phototherapeutic Keratectomy (PRK)
    - Laser Assisted Sub Epithelial Keratectomy (LASEK)
    - Intrastromal Corneal Rings (INTACS)
  - Regulator criteria for LASEK refractive surgery will apply.
    - Non-refractive:
      - Collagen cross linkage.
- For stage IV:
  - Surgery:
    - Keratoplasty/Corneal transplant

Daman covers Keratoconus management for all those plans having optical and surgical benefit, and as per policy terms and conditions.

Keratoconus Management			
Treatment Modalities	Grade Coverage	Clinical Findings	Procedures
Refractive	I, II, III (no central scarring, no Vogt's striae)	<p><b>Stage 1:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both &lt;5.00 Dioptre</li> <li>- Irregularly astigmatic keratometry &lt;48 D, are consistent with diagnosis.</li> <li>- Pachymetry shows paraxial corneal thinning</li> </ul> <p><b>Stage 2:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both from 5.00 to 8.00 D</li> <li>- Keratometry &lt; 53 D</li> <li>- Pachymetry &gt; or =400 micron</li> </ul> <p><b>Stage 3:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both from 8.00 to 10.00 D</li> <li>- Keratometry &gt; 53 D.</li> <li>- Pachymetry: 200-400 Micron</li> </ul>	<p>Laser Phototherapeutic Keratectomy (PRK).</p> <p>Or</p> <p>Laser Assisted Sub Epithelial Keratectomy (LASEK).</p> <p>Or</p> <p>Intrastromal Corneal Rings (INTACS).</p>
Non-refractive	I, II, III (no central scarring, no Vogt's striae)	<p><b>Stage 1:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both &lt;5.00 Dioptre</li> <li>- Irregularly astigmatic keratometry &lt;48 D, are consistent with diagnosis.</li> <li>- Pachymetry shows paraxial corneal thinning</li> </ul> <p><b>Stage 2:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both from 5.00 to 8.00 D</li> <li>- Keratometry &lt; 53 D</li> <li>- Pachymetry &gt; or =400 micron</li> </ul> <p><b>Stage 3:</b></p> <ul style="list-style-type: none"> <li>- Myopia, induced astigmatism, or both from 8.00 to 10.00 D</li> <li>- Keratometry &gt; 53 D.</li> <li>- Pachymetry: 200-400 Micron</li> </ul>	<p>Collagen Corneal Cross- Linkage (CXL)</p>

Corneal Transplant	Grade IV and any cornea with scarring &/or Vogt's striae.	<b>Stage 4:</b> - Refraction not measurable - Keratometry values are greater than 55 D. - Pachymetry < 200 micron	Keratoplasty (Corneal Transplant): - Lamellar. - Penetrating. - Endothelial.
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## 2. Scope

This adjudication rule highlights the coverage and treatment of Keratoconus for all health insurance plans administered by Daman.

## 3. Adjudication Policy

### 3.1 Eligibility / Coverage Criteria

Daman covers Keratoconus management for all those plans having optical and surgical benefit, and as per policy terms and conditions.

Coverage of spectacles, glasses and lenses is subject to optical benefit and should be paid in accordance with policy terms and condition.

### 3.2 Requirements for Coverage

ICD and CPT codes must be coded to the highest level of sensitivity. Failure to submit upon request additional information specific to the procedure will result in rejection of claim.

### 3.3 Non-Coverage

- Diagnosis and treatment of keratoconus is not covered for basic and visitor's Plan.
- In addition to the basic and Visitor's Plan, the non-coverage of keratoconus is as below:
  - Optical management & keratoplasty/corneal transplant for keratoconus are not covered for Basic Plan as it is a general exclusion of the policy.
  - Optical management of keratoconus is not covered for all those Daman insurance Plans Without optical benefits, as it is a general exclusion of the policy.

### 3.4 Payment and Coding Rules

- Please apply Regulator payment rules and regulations and relevant coding manual for ICD, CPT.

## 4. Denial Codes

Code	Code Description
NCOV-001	Diagnosis(es) is (are) not covered
NCOV-003	Service(s) is (are) not covered
MNEC-003	Service is not clinically indicated based on good clinical practice
MNEC-004	Service is not clinically indicated based on good clinical practice, without additional supporting diagnoses/activities
CLAI-012	Submission not compliant with contractual agreement between provider and payer

## 5. Appendices

### 5.1 References

- [https://www.uptodate.com/contents/keratoconus?search=keratoconus&source=search\\_result&selectedTitle=1%7E14&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/keratoconus?search=keratoconus&source=search_result&selectedTitle=1%7E14&usage_type=default&display_rank=1)
- <https://www.ncbi.nlm.nih.gov/books/NBK470435/>
- <https://www.aao.org/eyenet/article/diagnosis-and-management-of-keratoconus>
- <https://pubmed.ncbi.nlm.nih.gov/articles/PMC10318194/>
- <https://www.msdmanuals.com/professional/eye-disorders/corneal-disorders/keratoconus>

## 5.2 Revision History

Date	Change(s)
01/07/2013	V2.0 <ul style="list-style-type: none"> <li>• New plan names</li> <li>• CXL coverage for Thiqa</li> </ul>
15/07/2014	V3.0 <ul style="list-style-type: none"> <li>• Restored original effective date</li> </ul>
11/12/2017	V4.0 <ul style="list-style-type: none"> <li>• Content update</li> </ul>
31/12/2024	V5.0 <ul style="list-style-type: none"> <li>• New template</li> <li>• Content update</li> <li>• References update</li> </ul>

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