

Medical Coverage Policies

[Printer-Friendly Page](#)

Implantation of Intrastromal Corneal Ring Segments

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Description

Intrastromal corneal ring segments (Intacs®) inserts are clear, micro-thin intracorneal prescription ring inserts. Intacs are used to correct myopia both related and unrelated to keratoconus.

An incision is made near the upper edge of the cornea beneath the upper eyelid allowing the Intacs to be inserted. The Intacs rest between the layers of the tissue in the cornea. The natural optics is enhanced and the structure of the cornea is maintained because no corneal tissue is removed. Although Intacs are designed to be permanent, because no corneal tissue is removed, the insert may be removed or changed.

Intrastromal corneal ring segments have been investigated for two indications: refractive surgery to correct mild myopia and as a treatment of keratoconus.

Refractive surgery to correct mild myopia:

Intrastromal inserts correct myopia by flattening the center of the cornea and represent an alternative to laser in situ keratomileusis (LASIK) and other refractive surgeries. The proposed advantages of the intrastromal corneal ring segment:

- insertion does not affect the central cornea, and therefore not related to the healing process of the cornea;
- corneal tissue is not removed; and
- implants are reversible.

Treatment of keratoconus:

The initial treatment of keratoconus is often hard contact lens. If the patient develops an intolerance to hard contact lenses, keratoplasty or corneal grafting is often the next treatment. Keratoplasty typically improves visual acuity, but perioperative complications may arise. As an alternative several keratorefractive procedures have been attempted, but the overall results have been poor. Implantation of intrastromal corneal ring segments represents an additive technique in which the implants are intended to reinforce the cornea, prevent further deterioration, and potentially obviate the need for a penetrating keratoplasty. This technique has primarily been investigated in patients in whom the cornea has remained transparent and who are intolerant of contact lenses.

A number of studies have been published however these are all case series without control groups. While these studies reflect ongoing evaluation, they still do not adequately address long-term outcomes, and the question of an impact on and need for corneal transplants is unknown. At this time the implantation of intrastromal corneal ring segments is not medically necessary as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

Note: Intacs® have FDA approval to correct myopia both related and unrelated to keratoconus.

Medical Criteria:

Not applicable

Policy:

The implantation of intrastromal corneal ring segments is **not covered** and a contract exclusion as a treatment of myopia.

The implantation of intrastromal corneal ring segments is **not medically necessary** as a treatment of keratoconus as there is insufficient medical literature to support the efficacy of this treatment.

Coverage:

Implantation of intrastromal corneal ring segments is considered a **contract exclusion** as a treatment of myopia and **not medically necessary** as a treatment of keratoconus.

Benefits may vary between groups/contracts. Please refer to the Evidence of Coverage, Subscriber Agreement, Benefit Booklet, or Rltc Care Contract for **not medically necessary/not covered** services.

Coding:

The following diagnoses for Keratoconus will deny as not medically necessary:

371.6 Keratoconus

371.60 Keratoconus, unspecified

371.61 Keratoconus, stable condition

371.62 Keratoconus, acute hydrops

Any other diagnosis will deny as not covered.

0099T Implantation of intrastromal corneal ring segments**Also known as:**

Intacs®
Intrastromal corneal ring segments

Related topics:

Not applicable

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References:

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National Eye Institute Website. Facts about the cornea and corneal disease. Available at: <http://www.nei.nih.gov>. Accessed March 16, 2009.

Shabayek MH, Alio JL. *Intrastromal Corneal Ring Segment Implantation by Femtosecond laser for Keratoconus Correction*. American Academy of Ophthalmology; March 2007

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 [Back to Previous Page](#)