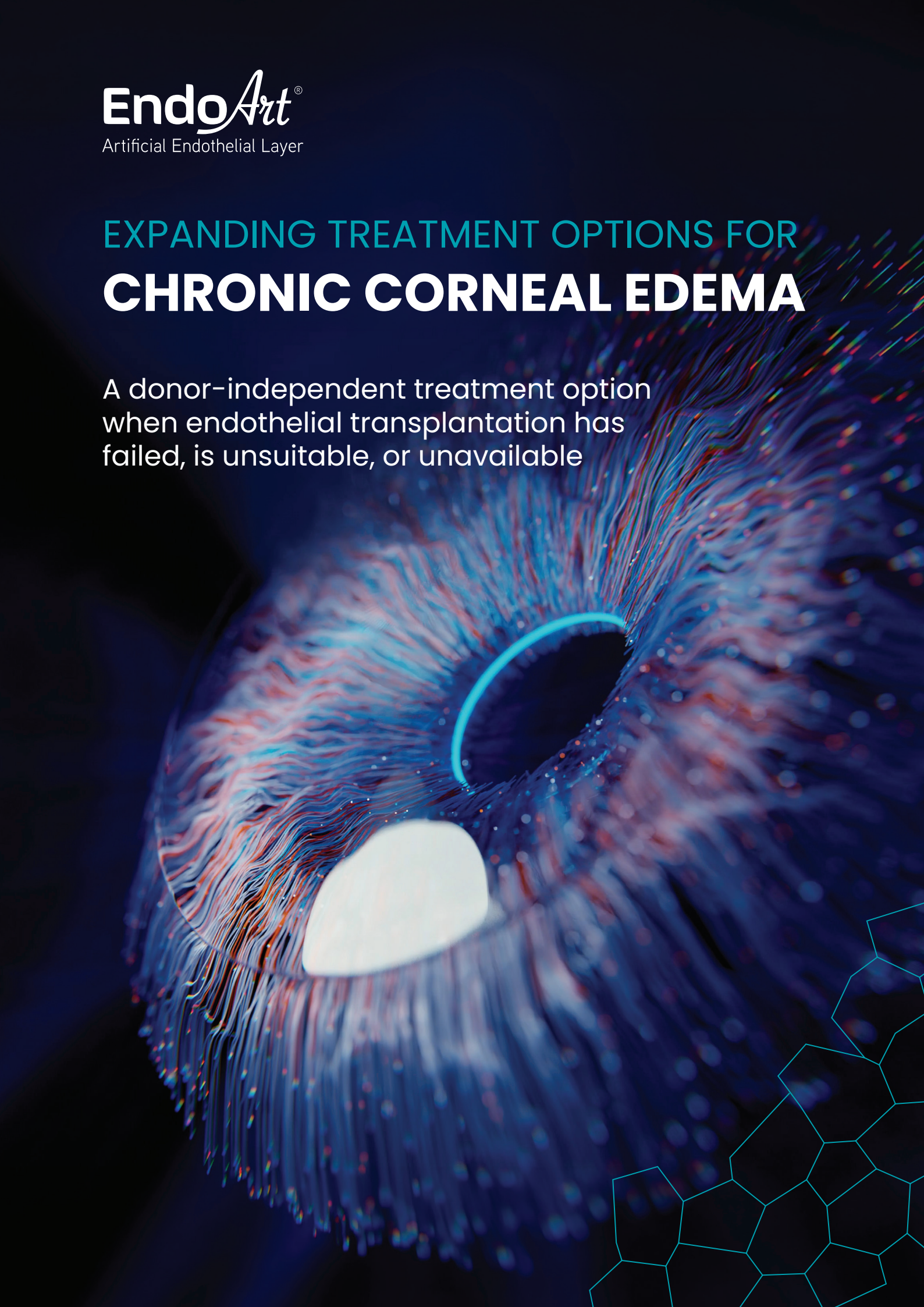
EndoArt®
Artificial Endothelial Layer

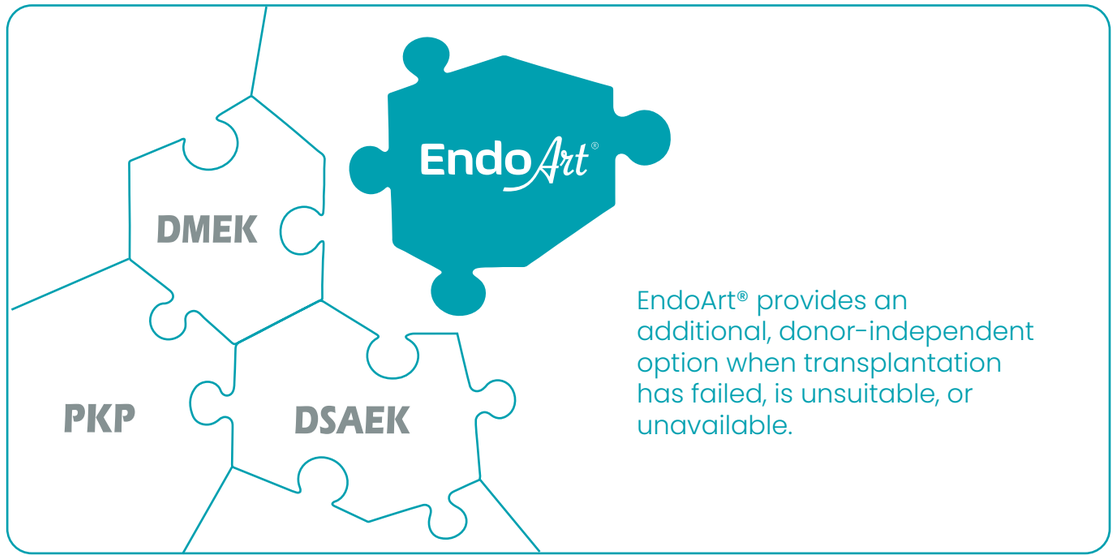
EXPANDING TREATMENT OPTIONS FOR
CHRONIC CORNEAL EDEMA

A donor-independent treatment option when endothelial transplantation has failed, is unsuitable, or unavailable



COULD ENDOART® BE THE MISSING PIECE FOR YOUR PATIENTS?

Descemet Membrane Endothelial Keratoplasty (DMEK), Descemet Stripping Automated Endothelial Keratoplasty (DSAEK), and Penetrating Keratoplasty (PKP) are established donor-tissue transplantation procedures for chronic corneal edema. However, previous graft failure, lack of suitable donor tissue, or ocular conditions may make further transplantation unsuitable and lead to a re-graft cycle.



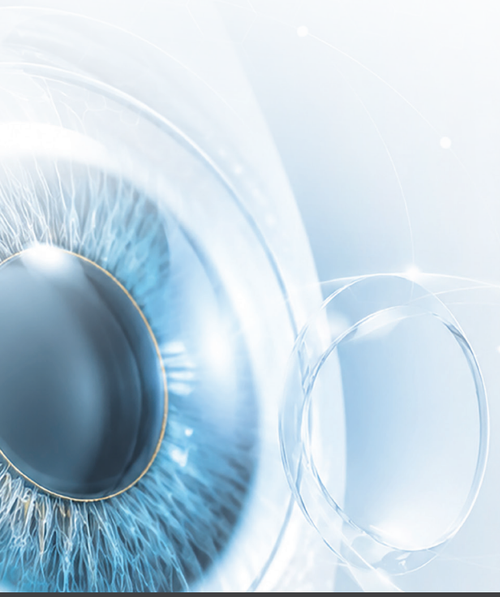
EndoArt® provides an additional, donor-independent option when transplantation has failed, is unsuitable, or unavailable.

Demonstrated edema reduction

Published evidence reports sustained reductions in central corneal thickness, with improvements in clarity, vision and pain[1-4].

Plan with confidence

Three-year shelf life supports scheduling around patient needs — not donor-tissue availability.



> EndoArt® ... fills a large medical, surgical, and logistical gap for my patients with complex corneas who may not be suitable for further tissue transplantation.
>
> **Prof. David Lockington**
> **Consultant Ophthalmologist, UK**

ENGINEERED FOR THE POSTERIOR CORNEA

EndoArt® is a thin, impermeable, transparent, dome-shaped synthetic implant designed to attach to the posterior cornea and reduce fluid entry into the central corneal stroma.

- 6 & 6.5 mm diameter
- 50 µm thickness
- Dome-shaped
- 6.8 mm curvature





Optically clear

Designed to maintain transparency within the visual axis.

Biostable

Remains physically and chemically stable following implantation.

Biocompatible

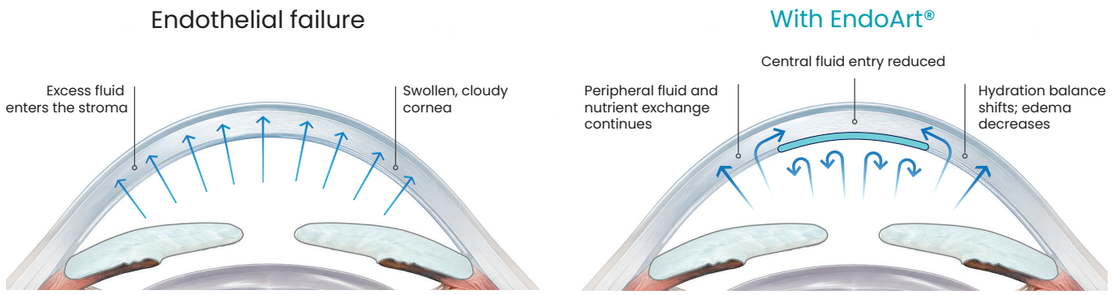
Hydrophilic acrylic polymer, a material class with established ophthalmic use.

Synthetic

Contains no human cells – no risk of immune rejection or donor-derived disease transmission.

HOW ENDOART® REDUCES CORNEAL EDEMA

When endothelial function fails, fluid enters the corneal stroma, causing swelling and loss of clarity.



EndoArt® promotes passive deturgescence by forming a barrier over the central posterior cornea, reducing fluid entry and allowing corneal hydration to re-equilibrate. The uncovered periphery maintains fluid and nutrient exchange.

INDEPENDENT PUBLISHED STUDIES REPORT SUSTAINED CORNEAL EDEMA REDUCTION UP TO 6 YEARS[2–4]

Three peer-reviewed reports evaluated EndoArt® outcomes in 22 eyes, with follow-up of up to six years.[2–4]

3
Independent published reports

22
Eyes evaluated

Up to 6
Years' follow-up

Sustained outcomes across published reports

21/22
Maintained central deturgescence[2–4]

20/22
Did not require subsequent corneal replacement or explantation[2–4]

16 eyes
Visual acuity improved[2–4]

183–306 µm
Mean CCT reduction across cohorts[2–4]

Study	Eyes	Follow-up	Functional outcome	Mean CCT reduction	Visual outcome
Fontana et al.[2]	7	24 months	7/7 functional and replacement-free	**-228 µm**	6/7 improved; **best final acuity: 0.20 logMAR (20/32)**
Lapid-Gortzak & van der Meulen[3]	10	Up to 4.5 years	9/10 maintained deturgescence without replacement	**-306 µm**	6/10 improved; **best final acuity: 0.30 logMAR**
Son et al.[4]	5	19–72 months	5/5 maintained deturgescence	**-183 µm**	4/5 improved; **best final acuity: 0.60 logMAR**

**One PK addressed pre-existing stromal fibrosis rather than loss of implant function. Published cohorts varied in baseline condition and included patients with previous graft failure and other complex ocular histories.[2–4] Individual outcomes may vary.*

PROSPECTIVE STUDY SHOWS CORNEAL EDEMA REDUCTION AT 12 MONTHS[1]

First-in-human prospective, multicentre, open-label, single-arm study:

- 24 eyes enrolled
- 17 completed 12-month follow-up

Safety
No serious device-related adverse events or chronic inflammatory reactions were reported in 24 treated eyes during 12-month follow-up.[1]

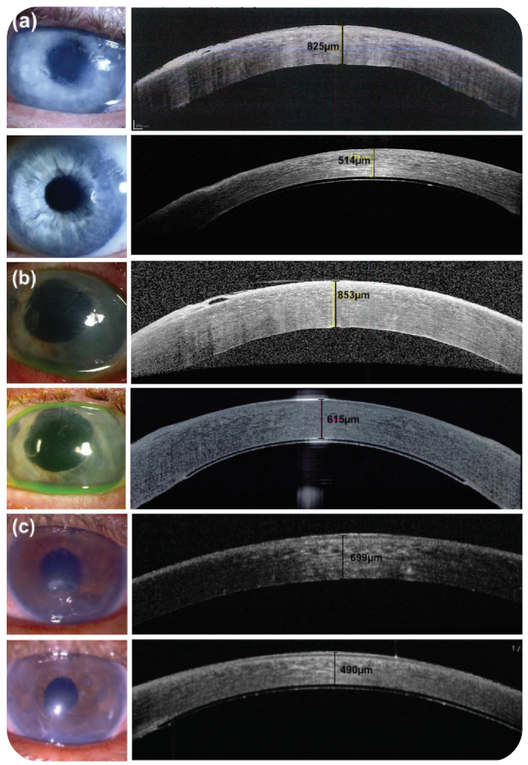


Image: Baseline and 12-month slit-lamp and OCT images from a representative study patient. Individual outcomes may vary.

Corneal deturgescence
146 µm mean CCT reduction at 12 months. 759 ± 116 µm → 613 ± 135 µm; sustained throughout follow-up.

Reduced eye pain
All patients with baseline pain reported relief. Mean VAS: 32 ± 30 → 2 ± 8 at 12 months.

Improved corneal clarity
Improvement evident by week 2. Mean score: 3.2 ± 0.6 → 1.1 ± 1.1; stable through 12 months.

Visual improvement
9 of 15 patients gained ≥3 ETDRS lines. Mean BCVA: 1.88 ± 0.79 → 1.34 ± 0.57 logMAR.*

Visual outcomes depend on baseline visual potential and ocular comorbidities. Two patients were not assessed for visual acuity due to optic neuropathy and no visual potential; 10 of the 15 evaluable patients had low visual potential associated with other ocular conditions.

Clinical consideration

Maintaining implant attachment is important to achieving and sustaining corneal deturgescence.[2–4]

BROADER PUBLISHED EVIDENCE SUPPORTS CONSISTENT CORNEAL-THICKNESS REDUCTION ACROSS COHORTS[5,6,7,8]

Independent published evidence, including a systematic review and meta-analysis, supports the corneal-thickness reductions and visual improvements observed in the first-in-human prospective study.[1,5–8]

Study (n eyes)	CCT: pre → post	VA: pre → post (logMAR)	Follow-up
Khan 2026 meta-analysis (12 papers, n=68 pooled)[5]	755 → 554 µm	1.56 → 1.21	1.5–24 months
Wiedemann 2024 (n=12)[6]	772 → 563 µm	1.6 → 1.3	12 weeks
Fitoussi 2026 (n=15)[7]	844 → 607 µm	2.13 → 1.84	1–6 months
Levy/Nanavaty 2026 (n=9)[8]	780 → 574 µm	2.28 → 1.16	27 ± 14 weeks

Published clinical outcomes in selected patients with chronic corneal edema. Follow-up periods and cohort characteristics vary by study; visual outcomes should be interpreted in the context of baseline visual potential and ocular comorbidities.

Attachment and re-bubbling

Re-bubbling was required in 60.2% of pooled eyes in the systematic review, reflecting the high-risk cohorts studied – including patients with glaucoma drainage devices, aniridia, and aphakia.[5] DMEK/DSAEK re-bubbling rates in comparable high-risk eyes are also substantially elevated (up to ~30%).[9,10] Unlike biologic grafts, re-bubbling with EndoArt® carries no risk of endothelial cell loss, as the implant is acellular.

Additional accumulated clinical experience

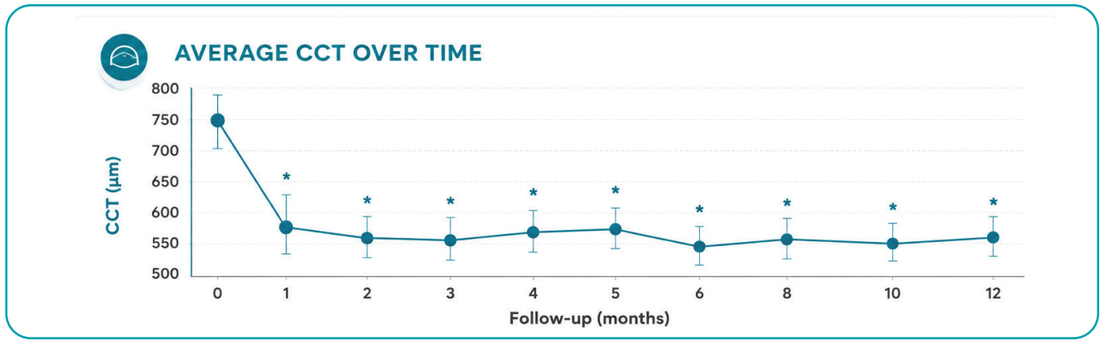
Across clinical studies and pre-market cases (n=146 total), outcomes recorded at 12 months included[11]:

85%
CCT IMPROVEMENT
Patients with improvement in central corneal thickness

71%
VISION IMPROVEMENT
Patients gaining ≥2 ETDRS lines of BCVA

91%
PAIN RELIEF
Patients experiencing pain relief

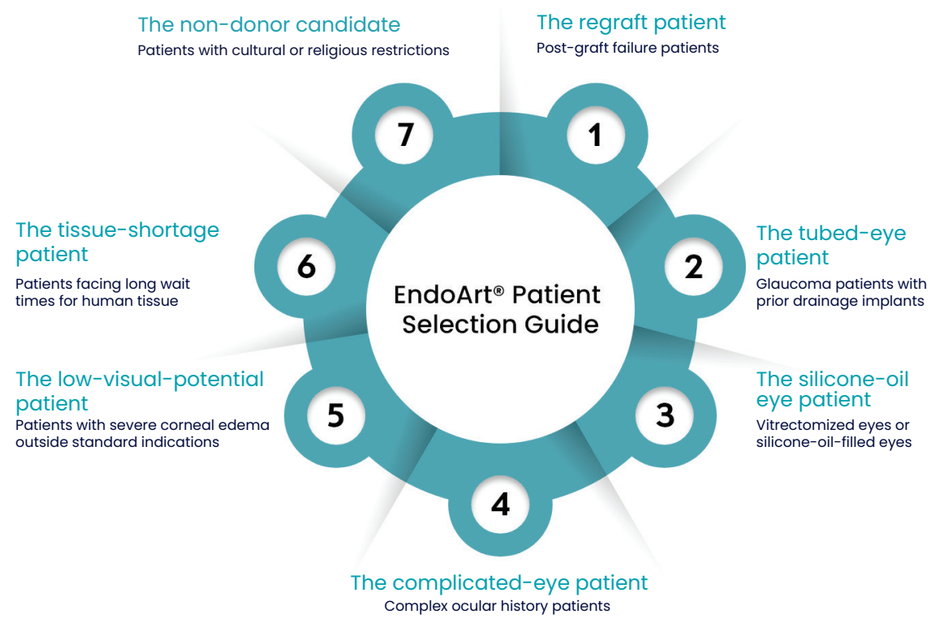
Sustained reduction in central corneal thickness over 12 months



Accumulated clinical-study and pre-market data; data on file. Individual outcomes may vary.

HOW ENDOART® HELPS EXPAND TREATMENT POSSIBILITIES

EndoArt® may provide another potential path forward for selected patients with chronic corneal edema when access to suitable donor tissue is limited or further endothelial transplantation may be unsuitable.



Published clinical experience includes patients with previous graft failure, glaucoma drainage devices and multiple prior ocular procedures[2–4,6,8,12–14]

Patient selection requires individual clinical assessment. Visual outcomes depend on baseline visual potential, corneal status and ocular comorbidities. Refer to the current IFU for approved indications, contraindications and precautions.

PRODUCT SPECIFICATION

6 & 6.5 mm diameter • 50 µm thickness • Dome-shaped • 6.8 mm curvature • Synthetic endothelial implant • Contains no human cells or donor tissue • Three-year shelf life • Intended as a permanent implant

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1. Daphna O, Auffarth GU, Lapid-Gortzak R, et al. A novel artificial endothelial replacement membrane for the treatment of chronic corneal edema. Cornea. 2025;44(10):1240–1247. doi:10.1097/ICO.0000000000003734. **2.** Fontana L, di Geronimo N, Versura P, Moramarco A. Long-term clinical outcomes and anterior segment optical coherence tomography findings after artificial endothelial replacement membrane implantation. Cornea. 2026;45(2):141–147. doi:10.1097/ICO.0000000000003835. **3.** Lapid-Gortzak R, van der Meulen I. 4.5-year follow-up with a novel corneal endothelial prosthesis. Klinische Monatsblätter für Augenheilkunde. 2025;242(4):318–323. doi:10.1055/a-2479-8606. **4.** Son HS, Augustin VA, Eberhart CG, et al. Long-term observations of the first human implantation of an artificial endothelial layer for endothelial dysfunction: a pilot study. Cornea. 2026;45(8):1012–1018. doi:10.1097/ICO.0000000000003972. **5.** Khan MA, Baker D, Karam M, Khan A, Kahlar N, Alsaif A. EndoArt in corneal endothelial disease: systematic review and meta-analysis of clinical outcomes and complications. Cureus. 2026;18(1). doi:10.7759/cureus.100619. **6.** Wiedemann J, Mestanoglu M, Rekate A, et al. EndoArt: results in patients with glaucoma drainage devices. Ophthalmologie. 2024;121:803–813. **7.** Fitoussi L, Panthier C, Mechleb N, Gatinel D, Saad A. Corneal artificial endothelial layer (EndoArt) in outpatients: outcomes from a case series. Cornea. 2026;45(4):520–526. doi:10.1097/ICO.0000000000004011. **8.** Levy I, Mukhija R, Nanavaty MA. Outcomes of synthetic corneal endothelial implant in patients with corneal oedema with or without prior endothelial keratoplasty: a case series. Clinical Ophthalmology. 2026;20:604707. doi:10.2147/OPTH.S604707. **9.** Kang JJ, et al. Clinical outcomes of Descemet stripping endothelial keratoplasty in eyes with glaucoma drainage devices. Journal of Glaucoma. 2019;28(7):601–605. **10.** Romano D, et al. Descemet membrane endothelial keratoplasty in aphakic, aniridic, and vitrectomized eyes: a review. Cornea. 2024;43(11):1448–1455. **11.** EyeYon Medical. Accumulated EndoArt clinical-study and pre-market outcomes at 12 months. Data on file. **12.** Rens J, Krolo I, Koppen C, Ni Dhubhghaill S. Artificial endothelial layer implantation after multiple failed keratoplasties. Cornea. 2024;43(6):790–794. doi:10.1097/ICO.0000000000003462. **13.** Abusayf MM, Tan GS, Mehta JS. Pull-through insertion of EndoArt for complex eyes. American Journal of Ophthalmology Case Reports. 2023;32:101878. **14.** EyeYon Medical. EndoArt® Instructions for Use. Current version.

EndoArt®

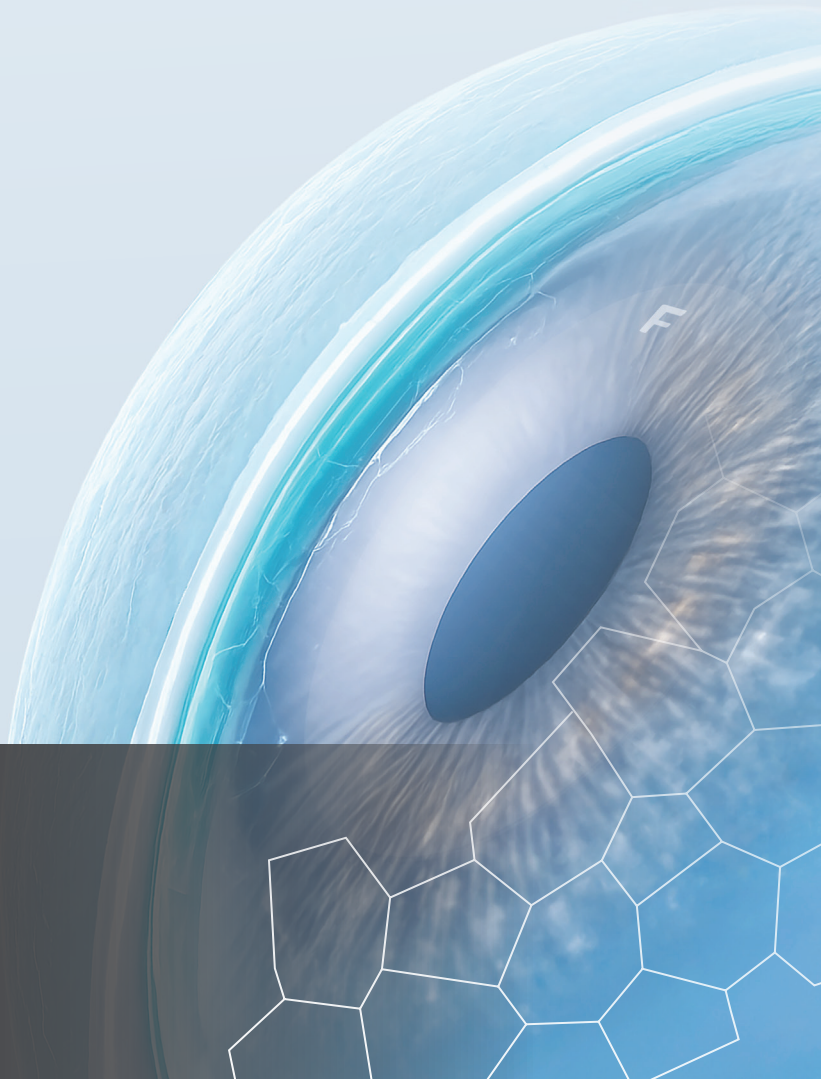
Artificial Endothelial Layer

A DONOR-INDEPENDENT OPTION FOR YOUR PATIENTS

- Reduce chronic corneal edema
- Expand treatment possibilities when endothelial transplantation has failed, is unsuitable or unavailable
- Schedule around patient needs – not donor-tissue availability

CONSIDER ENDOART®

Consult the current Instructions for Use for approved indications, contraindications, warnings and precautions. Individual outcomes may vary. Product availability may differ by country.



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Rev.1.0