

**IS04****Corneal diseases and transplant surgery procedures**

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Depending on corneal disease and whether the pathological process affected the full thickness of the cornea or only its surface, it is possible to adjust the surgical technique and apply the perforating keratoplasty (full thickness corneal transplantation) or lamellar corneal transplantation (partial thickness transplantation depending on which part is affected by the disease).

Penetrating transplantation is an operation in which a full thickness of the sick cornea is replaced with a healthy donor cornea. Recovery of eyesight is much slower compared to the lamellar transplantation, but today it is still used for diseases that affect all layers of the cornea.

This method of transplantation has been the gold standard in the treatment of corneal diseases for more than a century and is still indispensable in cases of scars (leucoma) affecting the full thickness of the cornea, corneal hydrops, pre-perforations of the cornea and perforating corneal injuries. After the perforating keratoplasty, several months are needed for the recovery of visual acuity. Lamellar transplantation (DSAEK, UT-DSAEK, DMEK) is an advanced technique in which only the diseased portion of the cornea is transplanted. The eyesight recovers quickly, already within a few weeks; the possibility of complications is small and rejection of the transplanted cornea is extremely rare. This method of lamellar transplantation is applied for diseases such as: pseudo-phakic bullous keratopathy, Fuchs' dystrophy, decompensated previous corneal graft etc. DSAEK is the most commonly performed corneal transplantation method in Europe, while DMEK accounts for over 60% of all corneal grafts in the USA. The advantage is that the biggest hole on the surface of the eye is only 3 mm and such a small incision preserves the normal curvature of the cornea which is important for better eyesight and integrity of the globe. Postoperative recovery is fast and good vision is achieved in just a few weeks.

Corneal transplant surgeries are performed under general anesthesia or under local anesthesia potentiated by intravenous sedation. The procedure of corneal transplantation lasts on average 30 min.

**IS05****From septoplasty to rhinoplasty**

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Correction of the nasal septum is the most frequently performed surgery in the nose for the incidence of congenital septal deformities is high. However, septal deviation may not only impair nasal breathing but may also have an impact on the form of the whole nasal pyramid. The correction necessitates the expertise in both septal and rhinoplasty procedures. The septorhinoplasty is meanwhile probably the most popular procedure in aesthetic surgery.

