

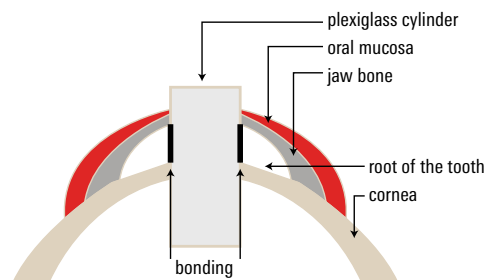
Corneal prosthesis from the dental root: osteo-odonto-keratoprosthesis (OOKP)

Transplantation of an artificial cornea is a globally uncommon, but successful procedure for patients with severe corneal diseases or injuries. In Switzerland, the specialized teams at the University Hospital of Basel are focusing on the bone-tooth-cornea prosthesis method.

There are patients with corneal diseases or injuries in whom corneal transplantation is not possible, for example due to rejection reactions. Therefore, in the osteo-odonto-keratoprosthesis the cornea is artificially replaced by an implant from the root of a tooth. This prosthesis from biological material ensures tolerability in the body, because it can form a permanent bond with the body's own tissues.

For the osteo-odonto-keratoprosthesis, one of the patient's teeth are extracted with the root of the tooth and the surrounding jawbone with the skin. The crown of the tooth is removed, the root of the tooth is adapted by being cut into shape, and a plexiglass lens is placed in the middle as the optical cylinder.

This unusual prosthesis is sewn into the patient's connective tissue for a few months. After about three months, the implant can be used as a corneal prosthesis.



Schematic cross-section of an osteo-odonto-keratoprosthesis



«Thanks to the good tolerability of the implant, OOKP helps patients regain vision, usually permanently.»

Prof. Dr. David Goldblum,
Senior Physician Eye Clinic



«In the root of the tooth, where a crown can be placed permanently, we can also insert an optical cylinder made of plexiglass.»

Prof. Dr. med. Dr. med. dent. Christoph Kunz,
Deputy Chief of Oral & Maxillofacial Surgery

The osteo-odonto-keratoprosthesis, unique in Switzerland, helps our patients regain eyesight permanently in the vast majority of cases. The success is the result of the fine-tuned collaboration between maxillofacial surgeons and ophthalmologists of the University Hospital of Basel.

Contact

University Hospital Basel
Eye Clinic
International Service
Spitalstrasse 22
4031 Basel
Switzerland
www.usb.ch/international