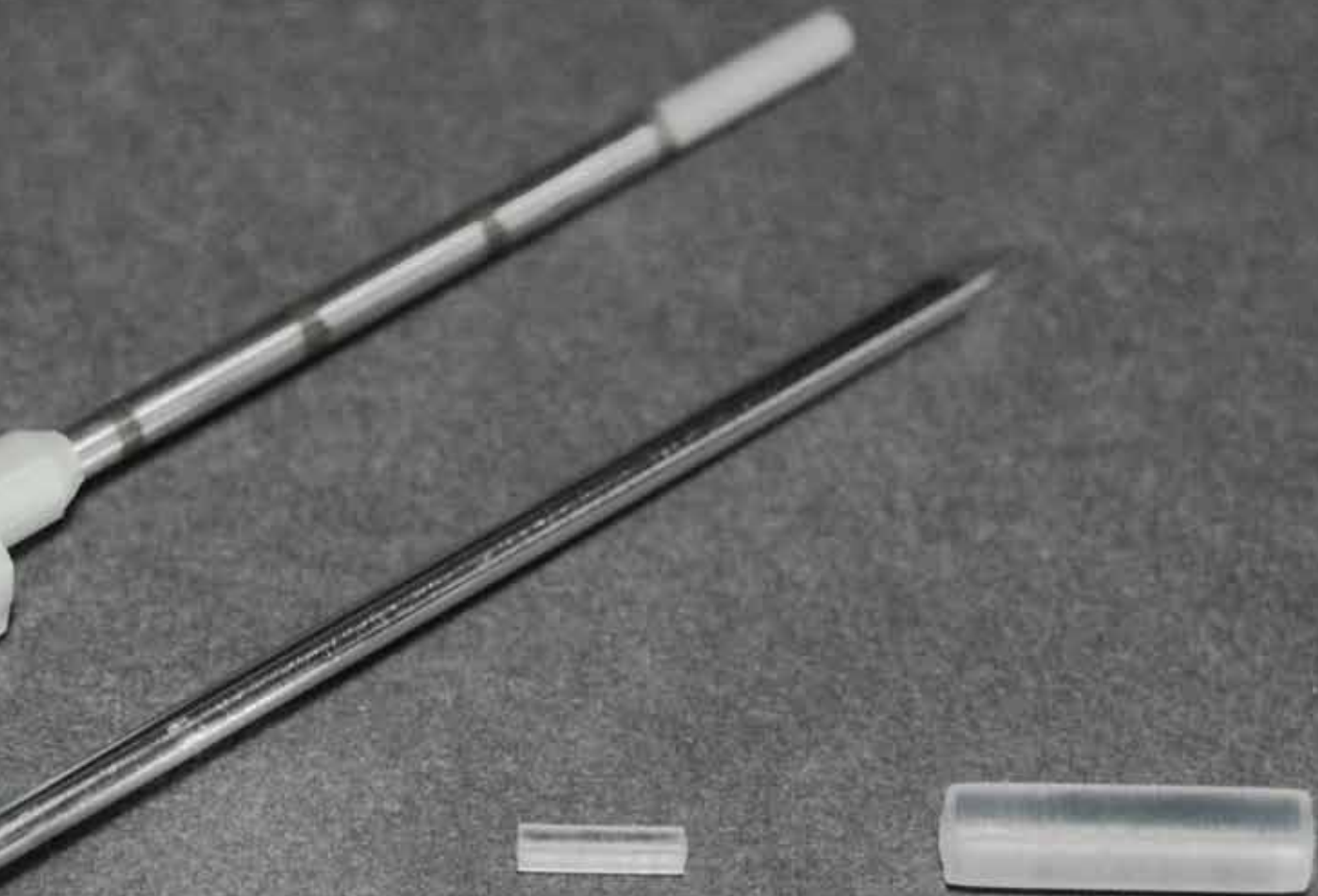


## Tips for success

for the use of the osmed Tissue Expanders Pin

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## | Indications

- ↷ Expansion and compensation of volume deficiency of the orbita at congenital microphthalmia.
- ↷ Treatment of Post Enucleation Socket Syndrome (PESS)

## | Contraindications

- ↷ Entire or partial vision of one eye
- ↷ Missing counter bearing for expander (Pin expander is not suitable for volume filling of a shrunken dermis-fat transplant).

## | Operative criteria

### Congenital blind microphthalmia

Well-proven is a beginning of treatment until the age of 1 year, preferably at the age of 4 months. Depending on the further tendency of the growth of the microphthalmia and the development of the cranial growth, an implantation of further expanders might be necessary.

### PESS:

In case of volume deficiency despite an orbita implant and an optimal adaption of the prothesis, which cannot be solved by augmentation of the prothesis, a volume filling via Pin expanders can be applied.

## | Anaesthesia

General anesthesia for children.  
For adults usually a local anesthesia is possible.

# | Implantation

1. Disinfection of the skin.
2. Disinfection of the conjunctiva.
3. Determination of volume deficit:  
With an inserted prosthesis a retrobulbar injection cannula is inserted in the usual manner into the temporal lower orbita quadrant in retrobulbar/intraconal direction and via this access local anesthetic is injected. As much volume is injected until there is symmetry in comparison to the opposite side. If necessary intra-operative a Hertel exophthalmometry can be carried out for a comparison of the vertex of the prosthesis and corneal vertex of the healthy partner eye.
4. After determination of the volume deficit, the necessary quantity of Pin expanders can be calculated. Calculation basis is that the final volume (in-vitro swelling) of an expander is 0.24 ml, i.e. 4 Pin expanders compensate a volume deficit of 1 ml.
5. At the spot where the retrobulbar cannula was placed, now the implantation trocar is inserted. The injection depth can be measured by the use of the scale of the trocar.
6. The implantation should be positioned preferably retrobulbar/intraconal respectively behind a lying orbita implant to minimize the risk of extrusion of the expanders.
7. Being convinced of the correct position, the surgeon inserts each Pin expander separately via the trocar.
8. When the desired quantity of Pin expanders is implanted, the trocar is removed.
9. If an implantation at different areas is desired, it might be necessary to go transcutan again.
10. The implantation area is closed with skin suture.
11. A local antibiotic after-treatment is usually not necessary.