

## CEPROC hydrogel orbital expander

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### Abstract

This research started as a response of the numerous cases of microphthalmias in my area. Before this invention there was nothing for the patient to use until he was more than 9 months old which markedly deteriorated the growth of the orbit cavity. It is always too late to equate the sizes of the bones and opening of the orbital cavity. The hydrogel expanders are pure hydrogel balls, which in their natural state without hydration are 0.5 mm big in diameter. They are of osmotic filling, that is to say, they are moisturized with the tear and the humidity of the orbital cavity. If this moisture is not enough, artificial tear can be added twice a day. These expanders are put in cabinet. It is not necessary to use the operating room, as this treatment is not invasive for the patient. They are put directly on the small orbital cavity and the tear naturally initiates the process of hydration. The patient is checked out once a week. This expander is not removed until it has reached the required size. The expander can expand up to 18 mm. The time of use of the expander depends on the reaction of the tissues of the patient's orbital cavity. The expander is enlarging the orbital cavity maintaining its pressure and thus preventing the cavity from deforming, retracting and further shrinking. With this treatment, patients from four to six months of age can be fitted with a custom-made eye prosthesis.



### Biography:

Sergio Ozán has studied Optician course from University of Buenos Aires, Argentina. He is Specialist in Contact Lenses, Specialist and Manufacturer of Ocular Prosthesis. He is a Scientific Adviser for Ocular Prosthesis in APO (Asociación Profesional de Optómetras in Argentina). He is a Precursor and Creator of multi-perforated orbital implant, JUMAT, and Precursor and Creator of expander orbit osmotic hydrogel filling for microphthalmia. He is the Director of CEPROC, Director of Ocular Prosthesis Division in Perfect Vision, Santiago, Chile.

### Speaker Publications:

1. "Scleral prosthetic lenses"

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