

## Anterior chamber perfluoro-N-octane (PFO) bubbles

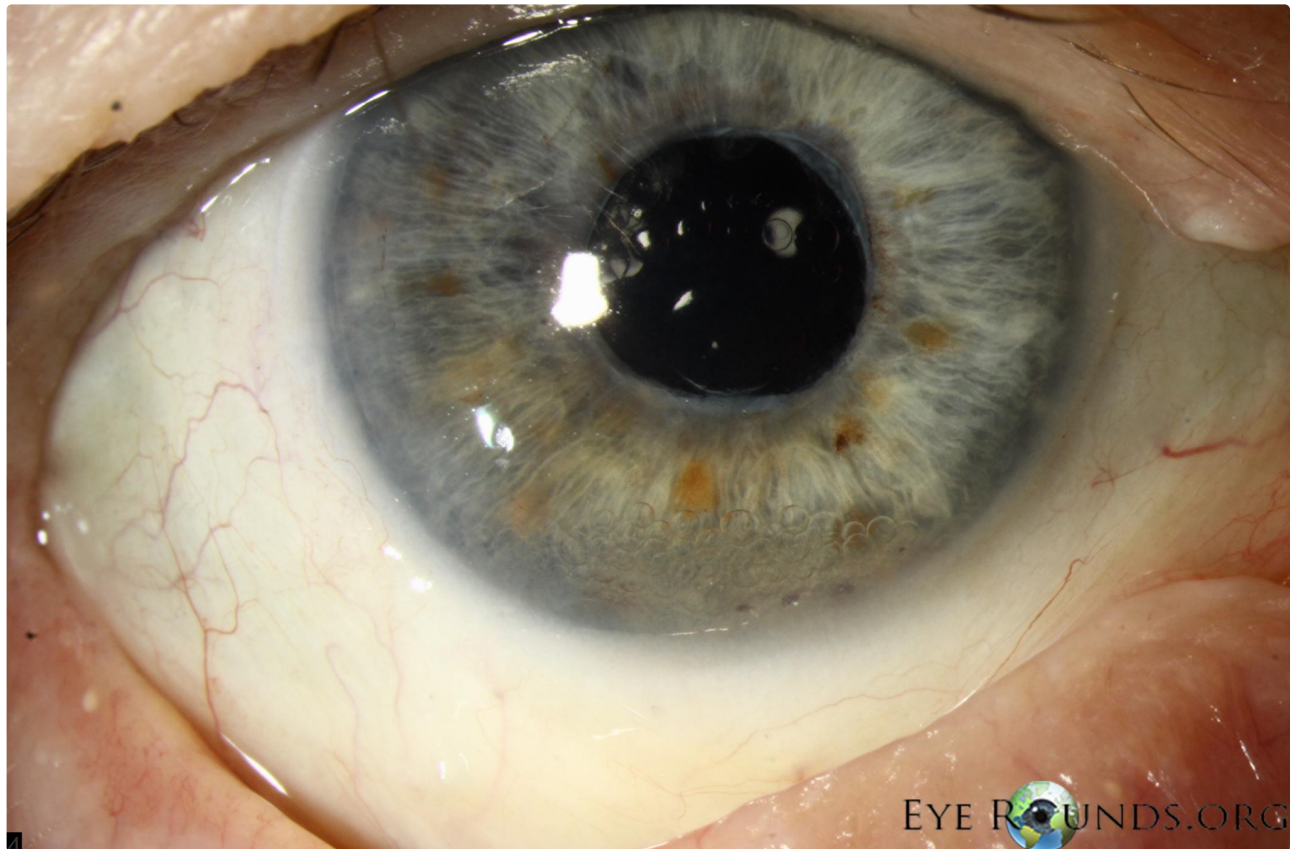
**Category(ies):** Retina, Vitreous

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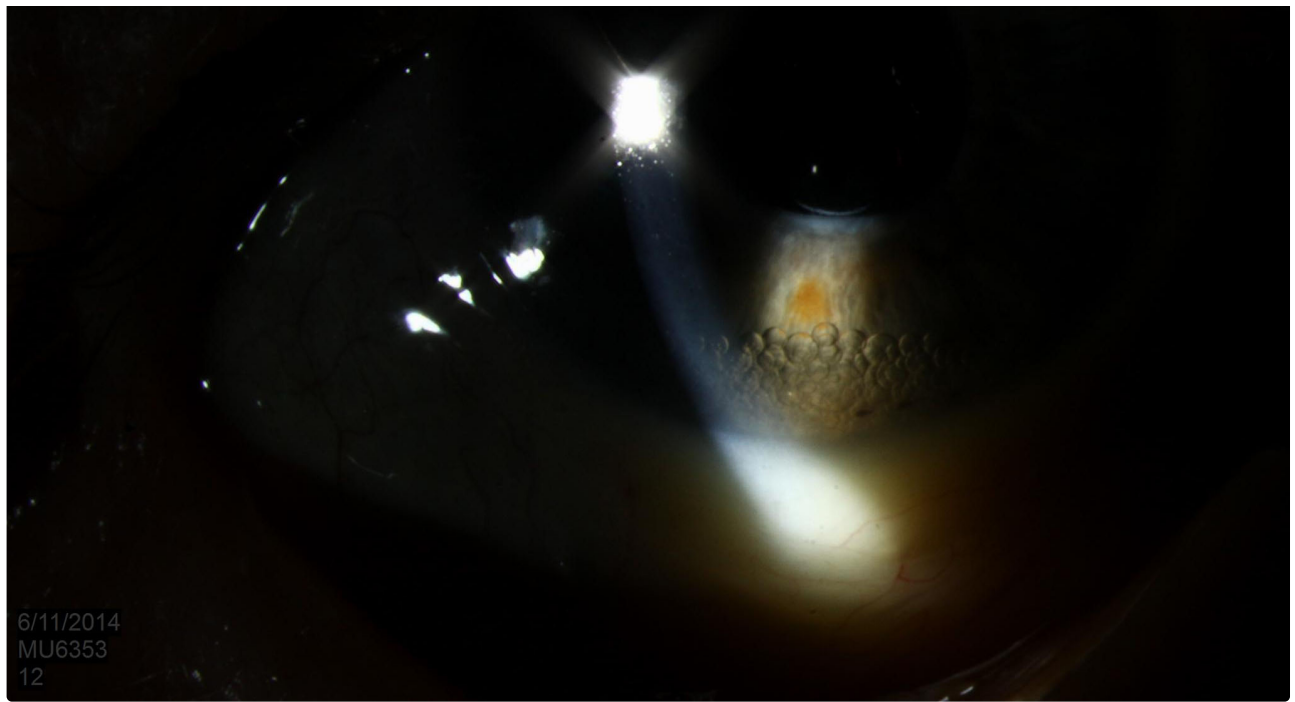
**Photographer:** Stefani Karakas, CRA

Perfluoro-n-octane (PFO) is a dense liquid (specific gravity of 1.76) that is used for the intraoperative management of retinal detachments. Due to its density, low viscosity, and immiscibility in water, the PFO is able to displace sub-retinal fluid and blood anteriorly, allowing for retinal unfolding and stabilization during repair. PFO has been observed to be safe and effective in the management of retinal detachments. Possible complications include increased intraocular pressure, hypotony, decreased visual acuity, retained PFO, need for re-operation, and cataract formation. However, complication rates after the use of PFO were shown to be comparable to other intraoperative retinal attachment management options. PFO may decrease the need for a posterior retinotomy; post-operative surgical complications such as bleeding and membrane formation may also decrease due to PFO management.



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#### Reference:

- Scott IU, Flynn HW, Murray TG, Feuer WJ, and Perfluoron Study Group. 2003. Outcomes of surgery for retinal detachment associated with proliferative vitreoretinopathy using perfluoro-n-octane: a multicenter study. American Journal of Ophthalmology. 136(3):454-463.
- Scott IU, Murray TG, Flynn Jr. HW, Feuer WJ, Schiffman JC, and Perfluoron Study Group. 2002. Outcomes and complications associated with giant retinal tear management using perfluoro-n-octane. American Journal of Ophthalmology. 109:10:1828-1833.

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