

Gesell LB, Trott A. De novo cataract development following a standard course of hyperbaric oxygen therapy. *Undersea Hyperb Med.* 2007 Nov-Dec;34(6):389-92.

Division of Hyperbaric Medicine, Department of Emergency Medicine, University of Cincinnati College of Medicine, USA.

A 49 y/o female underwent 48 hyperbaric oxygen (HBO2) treatments at 2.5 ATA (atmospheres absolute) (253 kPa) for 90 minutes for chronic refractory osteomyelitis of the sacrum and recurrent failure of a sacral myocutaneous flap. Prior to HBO2 therapy, formal ophthalmic exams revealed myopia but no evidence of cataract formation. Eight weeks following the completion of HBO2 therapy, on repeat ophthalmic exam, the patient was discovered to have worsening myopia. Changes of the crystalline lens, consistent with nuclear cataract development, were identified in each eye. Other common causes of cataract formation including diabetes, corticosteroid use, and excessive exposure to ultraviolet light, were excluded. While transient visual changes are known to occur during HBO2 therapy, cataract formation has only rarely been reported and only after prolonged courses of treatment (150 or more treatments). This case identifies the need to further investigate the ocular effects of HBO2 therapy, especially with regard to cataract development and progression.

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#### Related Links

Nuclear cataract and myopia during hyperbaric oxygen therapy. [*Br J Ophthalmol.* 1984]  
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Refractive change during hyperbaric oxygen therapy. A clinical trial including ultrasound ophthalmometry. [*Acta Ophthalmol Scand.* 2002] PMID:11952487

Hyperbaric oxygen therapy in the treatment of chronic refractory osteomyelitis: a preliminary report. [*Chang Gung Med J.* 2003] PMID:12718388

Complications and side effects of hyperbaric oxygen therapy. [*Aviat Space Environ Med.* 2000]  
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Nuclear light scattering, disulfide formation and membrane damage in lenses of older guinea pigs treated with hyperbaric oxygen. [*Exp Eye Res.* 1995]  
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