

# PUBLISHED VERSION

Jie Jin Wang, Calvin Sze-un Fong, George Burlutsky, Sudha Cugati, Ava Grace Tan, Elena Rohtchina, Jennifer Arnold, Wayne Smith, Paul Mitchell


**Risk of age-related macular degeneration 5 years after cataract surgery: findings from a cataract surgical cohort**

Abstracts of ARVO 2016 Annual Meeting, as published in Investigative Ophthalmology & Visual Science, 2016 / vol.57, iss.12, pp.15-1

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](http://creativecommons.org/licenses/by-nc-nd/4.0/).

## PERMISSIONS

<http://creativecommons.org/licenses/by-nc-nd/4.0/>



**Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0)**

This is a human-readable summary of (and not a substitute for) the [license](#). [Disclaimer](#).


**You are free to:**


**Share** — copy and redistribute the material in any medium or format


The licensor cannot revoke these freedoms as long as you follow the license terms.

---

**Under the following terms:**

 **Attribution** — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

 **NonCommercial** — You may not use the material for [commercial purposes](#).

 **NoDerivatives** — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

**No additional restrictions** — You may not apply legal terms or [technological measures](#) that legally restrict others from doing anything the license permits.

4th August 2017

## Abstract

**Purpose** : To confirm that no association exists between cataract surgery and the development of age-related macular degeneration (AMD) over five post-operative years in a clinic-based cataract surgical cohort.

**Methods** : We recruited and followed cataract surgical patients aged 65+ years in the Australian Cataract Surgery and Age Related Macular Degeneration Study for up to 5 years after surgery. We performed annual examinations with retinal photography. AMD was assessed using side-by-side grading of images from all visits. Paired and non-paired comparisons between operated and non-operated fellow eyes (either not operated or having surgery <12 months prior to 60-month visits) were conducted. Incident early AMD was defined as the new appearance of either indistinct soft/reticular drusen or co-existing retinal pigmentary abnormality and distinct soft drusen, in eyes at risk of early AMD. Incident late AMD was defined as the new appearance of neovascular AMD or geographic atrophy in eyes at risk of late AMD.

**Results** : Among 1864 participants who had cataract surgery performed at Westmead Hospital, Sydney, during 2004-2007, 1760 (94.4%) had gradable photographs at baseline. Of these 1760, 315 died prior to the 48-month visits. Of 1445 surviving participants, 1057 (73.1%) had 48- and/or 60-month postoperative visits and 388 (26.9%) were lost to follow-up. There were 203 participants who still had only unilateral cataract surgery at the 48-month visit, and who remained at risk of late AMD in both eyes at baseline. Late AMD developed in 10 operated (4.9%) and 13 non-operated fellow eyes (6.4%), odds ratio OR, 0.7, 95% confidence interval, CI, 0.4-1.2, after adjusting for the presence of early AMD at baseline. Of 151 who still had only unilateral cataract surgery at the 48-month visit and whose eyes were both at risk of early AMD at baseline, early AMD developed in 22 operated eyes (14.6%) and 28 non-operated fellow eyes (18.5%), OR 0.7, 95% CI 0.5-1.1. Non-paired comparisons between operated and non-operated eyes showed similar findings.

**Conclusions** : Prospective follow-up of this surgical cohort confirmed no increased risk of developing either late or early AMD, in eyes 5 years after cataract surgery.

This is an abstract that was submitted for the 2016 ARVO Annual Meeting, held in Seattle, Wash., May 1-5, 2016.