

# Prevalence of Age-Related Maculopathy: The Beaver Dam Eye Study - 1992



## Objective

To investigate the relationship between age and sex with retinal drusen, retinal pigmentary abnormalities, and macular degeneration.

## Methods

**Design:** Cross Sectional Study

**Sample Size:** 4926 individuals between the age of 43-84

**Methods:**

- Wisconsin Age-Related Maculopathy grading System was utilized to assess stereoscopic color fundus photos

**Outcome Measures:**

- Drusen (frequency and size), retinal pigment epithelial degeneration, retinal pigment, retinal detachment, subretinal hemorrhage, subretinal fibrosis, and geographic atrophy.

## Results

Point 1: Individuals  $\geq 75$  years of age (yoa) commonly have signs of AMD

- Fundus photographs of both eyes were graded by multiple blinded reviewers.
- Those over 75 years of age were found to have a significantly higher frequency of the following ( $P < 0.01$ )
  - **Large drusen** ( $\geq 125\mu\text{m}$ ): 24%  $\geq 75$  yoa vs. 1.9%  $< 75$  yoa
  - **Soft indistinct drusen**: 23%  $\geq 75$  yoa vs. 2.1%  $< 75$  yoa
  - **Abnormal retinal pigmentation**: 26.6%  $\geq 75$  yoa vs. 17.3%  $< 75$  yoa
  - **Exudative macular degeneration**: 5.2%  $\geq 75$  yoa vs. 0.1%  $< 75$  yoa
  - **Geographic atrophy**: 2%  $\geq 75$  yoa vs. 0%  $< 75$  yoa
- There was a decrease in the frequency of drusen with increasing age associated with poorer quality images due to cataractous changes
- 95.5% of individuals had at least one drusen in the macula of one of their eyes

Point 2: There was no significant difference in drusen frequency between sex or between the eyes of an individual ( $P > 0.05$ )

- However, women  $\geq 75$  yoa have a higher frequency of exudative macular degeneration ( $P = 0.02$ ) compared to males.

**TLDR: There is a significant correlation between AMD and age. Individuals 75 years of age or older have higher chance**