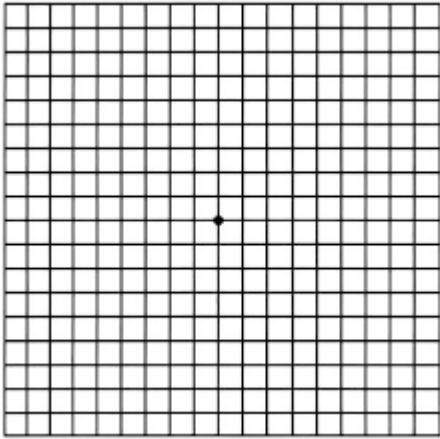


# Amsler Grid in detection of nAMD



- **Importance:** The Amsler grid test is widely recommended for patients with nonneovascular age-related macular degeneration (AMD) to facilitate early detection of neovascular AMD through self-assessment.
- **Objective:** To systematically review and perform a meta-analysis on the diagnostic accuracy of the Amsler grid test in detecting neovascular AMD.
- **Data Sources:** A systematic search was conducted across 12 databases from their inception until May 7, 2022.
- **Study Selection:** Studies were included if they compared groups with:
  - Neovascular AMD.
  - Healthy eyes or eyes with nonneovascular AMD.
  - The index test was the Amsler grid, and the reference standard was ophthalmic examination.
- **Data Extraction and Synthesis:** Two authors independently extracted data and assessed study quality using the Quality Assessment of Diagnostic Accuracy Studies 2 (QUADAS-2). Disagreements were resolved by a third author.
- **Main Outcomes and Measures:** Sensitivity and specificity of the Amsler grid for detecting neovascular AMD, compared against healthy controls or patients with nonneovascular AMD.
- **Results:**

- **Included Studies:** 10 studies with a total of 1,890 eyes (mean participant age ranging from 62 to 83 years).

- **Sensitivity and Specificity:**

- When comparators were healthy controls:

- **Sensitivity: 67% (95% CI, 51%-79%).**

- **Specificity: 99% (95% CI, 85%-100%).**

- When comparators were patients with nonneovascular AMD:

- **Sensitivity: 71% (95% CI, 60%-80%).**

- **Specificity: 63% (95% CI, 49%-77%).**

- Overall, potential sources of bias were low across studies.

- **Conclusions and Relevance:**

- While the Amsler grid is easy and inexpensive to use for detecting metamorphopsia, its sensitivity may not be high enough for effective monitoring.

- Coupled with moderate specificity in identifying neovascular AMD in at-risk populations, these findings suggest that patients should still undergo regular ophthalmic examinations, regardless of Amsler grid results.