



# Optical instruments

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## Lecture 4

### Amsler grid test

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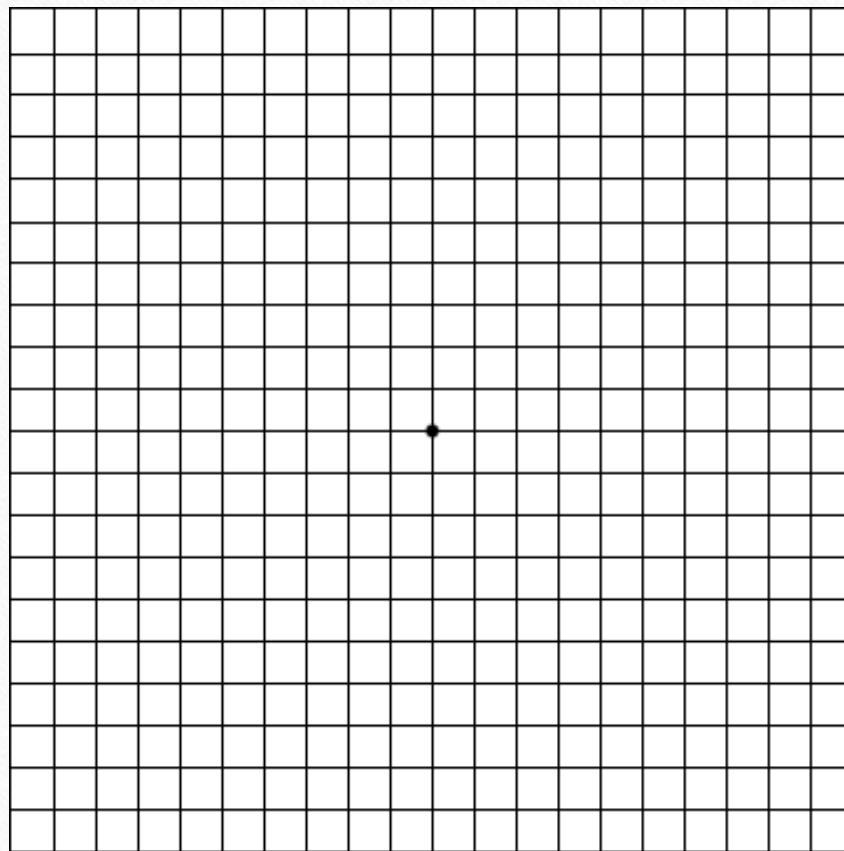
# Amsler grid test

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The Amsler grid is used to check whether lines look wavy or distorted, or whether areas of the visual field are missing.

It is use to detect vision problems resulting from damage to the macula (macular degeneration ) or the optic nerve.





# What is consist

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A Swiss ophthalmologist named Marc Amsler first developed the grid in 1947.

The basic Amsler grid is a 10-centimeter by 10-centimeter square filled with evenly spaced straight lines in a grid pattern.

The lines form very small squares that measure 5 millimeters on each side. There's a dot to mark the center.

# How to test

1. Test your eyes under normal room lighting used for reading.
2. Wear eyeglasses you normally wear for reading (even if you wear only store-bought reading glasses).
3. Hold the Amsler grid approximately 14 to 16 inches from your eyes.
4. Test each eye separately: Cup your hand over one eye while testing the other eye.
5. Keep your eye focused on the dot in the center of the grid and answer the questions.
6. Switch to the other eye and repeat.



# The questions

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- a) Do any of the lines in the grid appear wavy, blurred or distorted?
  - b) Do all the boxes in the grid look square and the same size?
  - c) Are there any "holes" (missing areas) or dark areas in the grid?
  - d) Can you see all corners and sides of the grid (while keeping your eye on the central dot)?

# Cont.

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Ideally, all lines will appear to be parallel.

If the lines appear distorted or disappear, you should mark the areas where these were noted.

You can do this by noting the number of squares between the dot and the abnormality while you are doing the test.

