

**Aim:** To Demonstrate Visual Acuity

**References:**

1. DeMyer, W. (2004). *Technique of the Neurologic Examination: A Programmed Text*. McGraw-Hill Education.
2. Blumenfeld, H. (2010). *Neuroanatomy through Clinical Cases*. Sinauer Associates.
3. Brazis, P. W., Masdeu, J. C., & Biller, J. (2016). *Localization in Clinical Neurology*. Lippincott Williams & Wilkins.
4. American Academy of Ophthalmology. (2021). *Vision Testing with the Snellen Eye Chart*. Retrieved from <https://www.aaopt.org/eye-health/tips-prevention/snellen-chart>

**Introduction:**

Visual acuity refers to the clarity or sharpness of vision. Testing visual acuity is a fundamental part of the neurological examination and is crucial for assessing the integrity of the visual pathway, including the eyes and optic nerves.

**Equipment Needed:**

- Snellen chart or equivalent vision chart
- Well-lit room with adequate distance for chart placement
- Occluder (e.g., eye patch, occluder paddle)
- Corrective lenses (if applicable)

**Patient Preparation:**

- Ensure the patient is positioned comfortably and can maintain a fixed distance from the vision chart.
- If the patient wears corrective lenses, allow them to wear them during the test.
- Explain the test procedure to the patient.

**Examination Steps:**

**1. Chart Placement**

- Hang the Snellen chart or equivalent vision chart on a well-lit wall at eye level.

- Ensure there is sufficient space for the patient to stand or sit at the recommended distance from the chart (usually 20 feet or 6 meters).

## **2. Distance Measurement**

- Confirm the distance between the patient and the chart. Use a tape measure or pre-marked floor to ensure accuracy.

## **3. Initial Assessment**

- Inquire if the patient currently wears corrective lenses and, if so, whether they are using them during the test.

- If the patient has no corrective lenses, proceed with the test as is.

## **4. Occlusion of One Eye**

- Use an occluder (e.g., eye patch, occluder paddle) to cover one eye while testing the other eye.

- Alternatively, the patient can use their hand to cover one eye while keeping it closed.

## **5. Testing Each Eye Separately**

- Instruct the patient to read the letters or symbols on the chart aloud, starting from the top row and moving down.

- Encourage the patient to guess if they are unsure of a letter or symbol.

- Record the smallest line of letters or symbols that the patient correctly identifies.

## **6. Repeat for the Other Eye**

- Repeat the test with the occluder covering the opposite eye.

- Ensure the patient maintains the same distance from the chart for consistency.

## **7. Assessment of Near Vision (Optional)**

- If necessary, conduct a near vision test using a near vision chart held at the appropriate reading distance (usually 14-16 inches or 35-40 centimeters).

- Repeat the same procedure as for distance vision testing.

## **Interpretation of Results:**

- **Visual Acuity Measurement:** Visual acuity is expressed as a fraction, with the numerator indicating the distance at which the patient stands from the chart (usually 20 feet or 6 meters) and the denominator representing the distance at which a person with normal vision can read the same line.

- **Normal Visual Acuity:** A visual acuity of 20/20 or better is considered normal. This means the patient can read letters from 20 feet away that a person with normal vision can read from 20 feet away.

- **Impaired Visual Acuity:** Visual acuity worse than 20/20 indicates reduced visual clarity and may require further evaluation by an ophthalmologist or optometrist.

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