

2: Visual Acuity



Definition: it is the ability of the eye to distinguish the shape of symbols such as letters, numbers and pictures. Special charts are used when testing at distances shorter than 20 feet.

Special charts are used when testing at distances shorter than 20 feet. The visual acuity test is a routine part of an eye examination or general physical examination, particularly if there is a change in vision or a problem with vision.

Procedure

- You will be asked to remove your glasses or contact lenses and stand or sit 20 feet from the eye chart. You will keep both eyes open.
- You will be asked to cover one eye with the palm of your hand, a piece of paper, or a small paddle while you read out loud the smallest line of letters you can see on the chart.

- Numbers or pictures are used for people who cannot read, especially children.

-If you are not sure of the letter, you may guess. This test is done on each eye, one at a time. If needed, it is repeated while you wear your glasses or contacts.

- You may also be asked to read letters or numbers from a card held 14 inches from your face. This will test your near vision.

-In children, the test is performed to screen for vision problems. Vision problems in young children can often be corrected or improved. Undetected or untreated problems may lead to permanent vision damage.

Normal Results

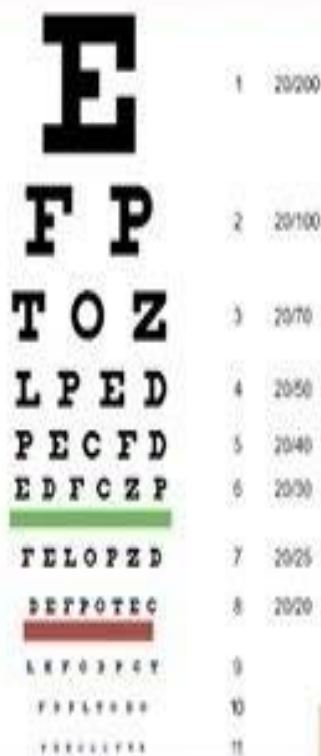
Visual acuity is expressed as a fraction.

- The top number refers to the distance you stand from the chart. This is usually 20 feet.**
- The bottom number indicates the distance at which a person with normal eyesight could read the same line you correctly read.**
- VA: $\frac{6}{6}$ for normal person.**
- VA: $\frac{6}{18}$ if the patient can see and recognize the fourth line (size 18).**

For example, 20/20 is considered normal. 20/40 indicates that the line you correctly read at 20 feet away can be read by a person with normal vision from 40 feet away.

Abnormal Results Abnormal results may be a sign that you need glasses or contacts. Or it may mean that you have an eye condition that needs further evaluation by a health care

EXPLAINING THE SNELLEN CHART



The Snellen chart was developed by Dutch ophthalmologist **Hermann Snellen** in 1862.

During a visual acuity test you will be asked to:

❶ Stand at 20ft from the chart.

❷ Cover an eye.

❸ Read aloud the letters (optotypes) from largest to smallest.

❹ Visual acuity can be determined when the optotypes can no longer be identified.

If you struggle to read the largest optotype a number of **other tests** can be carried out to determine how low your vision is.

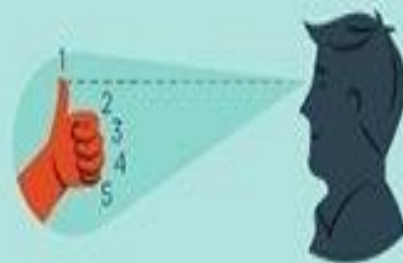
1 Moving closer to the eye chart:

Reducing distance until largest optotype is visible.



2 Counting fingers:

Assessing ability to count fingers on a single hand.



3 Hand Motion:

Ability to tell if a hand is moving in front of a person's face.

4 Light Perception:

Ability to perceive any light.