

Visual acuity is tested at a distance of 6m. Visual acuity is measured with a display of different-sized optotypes (standardized symbols for testing vision) shown at the appropriate distance from the eye. The familiar "Snellen chart" is composed of rows of progressively smaller letters, each row designated by a number corresponding to the distance in meters (or feet) from which a normal eye can read the letters of the row. For example, the letters in the "6" row are large enough for the normal eye to see from 6m away. Visual acuity is scored as a fraction (e.g., "6/30"). The first number represents the testing distance between the chart and the patient, and the second number represents the smallest row of letters that the patient's eye can read. Hence, normal vision is 6/6, and 6/24 acuity indicates that the patient's eye can only read from 6 m letters large enough for a normal eye to read from 24 m. This ratio can also be converted to a decimal (e.g.,  $6/6 = 1.0$ ). The rows shown to the patient get progressively smaller until the 1.0 row. The smallest row the patient can see is their visual acuity. A row is still chosen if a patient can correctly identify at least half of the optotypes.

Although wall-mounted illuminated charts or projection systems are commonly used, wall-mounted LCD screens provide better standardization and calibration. Such smart screen systems can also allow for calibration to account for testing distances that aren't exactly 6m.

Types of visual acuity charts:

- **Alphabet (Snellen chart)**
- The "illiterate E" chart is used to test small children or if there is a language barrier (e.g., many of our patients may not know the English alphabet)
- **Picture chart (for preschoolers) (Lea chart)**

	20 / 200		6m 6/60
	20 / 100	<b>F P</b>	6/30
	20 / 70	<b>T O Z</b>	6/20
	20 / 50	<b>L P E D</b>	6/15
	20 / 40	<b>P E C F D</b>	6/12
	20 / 30	<b>E D F C Z P</b>	6/9
	20 / 20	<b>F E L O P Z D</b>	6/6
	20 / 15	<b>D E F P O T E C</b>	6/4.5