Continuous-Text Reading Chart for Eye Examinations Measures Reading Acuity and Speed

Technology No. 94074

Eye Charts for Measuring Reading Vision

The Minnesota Laboratory for Low-Vision Research at the University of Minnesota has designed a continuous-text reading chart to measure reading acuity, critical print size and reading speed. The charts can be used to measure reading vision for people with normal vision and those with a wide range of vision impairments ("low vision"). The MNREAD® Charts are available in both English and Spanish versions and are used by eye care professionals, rehabilitation specialists, and vision researchers. The English and Spanish versions were designed to meet stringent linguistic and text-layout properties of the test sentences. The charts have been pilot tested for validity on groups of adults and children. MNREAD® charts, using similar design principles, have been developed for speakers from a variety of languages that include: Japanese, Italian, Portuguese, French and Greek.

Note: the MNREAD® Chart technology has been licensed to [Precision Vision](#). Please contact them if you would like additional information. There is also a [MNREAD® app](#) available via the iTunes app store.

MNREAD® Continuous-Text Eye Charts Measure Properties of Reading Vision

The continuous-text MNREAD® eye charts extend past the reach of traditional eye exams because of their capability to measure the impact of eye conditions on reading. Problems with reading pose a major problem for most people with vision impairment. The traditional letter charts are designed to measure acuity and contrast sensitivity, but do not provide direct information about reading vision. The MNREAD® chart extends the capability of eye examinations by measuring the patient's reading acuity, maximum reading speed, and critical print size, which is the smallest print size that supports the maximum reading speed. MNREAD® Charts can be used to prescribe optical corrections for reading, complete low vision assessments, and prescribe magnifiers or other reading aids. The charts can also be used in

clinical trials to assess the impact of eye treatments on reading vision.

Components of Continuous-Text Charts for Eye Exams

The MNREAD® charts are composed of 19 sentences that decrease in print size from logMAR 1.3 to logMAR -0.5 (Snellen equivalent of 20/400 to 20/6). Every sentence is 60 characters long and is at a standard level of difficulty, using vocabulary from a third grade reading level. The passages resemble normal everyday reading and contain simple linguistic content. When using the MNREAD Chart the patient is asked to read the passages aloud, the amount of time taken to read each sentence is recorded along with the number of words that are missed or read incorrectly. These variables are used to determine the smallest size of print at which the patient can successfully read a passage and the print size that supports the patient's maximum reading speed. This is an objective measurement of a patient's reading performance. Multiple versions of the reading vision eye charts are available to provide variation of sentence sets for examinations of the left and right eye, in pre/post testing, and where repeated testing is useful. The chart's level of effectiveness and accuracy has been validated by scientific testing.

FEATURES OF CONTINUOUS-TEXT EYE CHARTS TO MEASURE READING VISION

- Measures properties of reading vision including reading acuity, critical print size and reading speed - traditional letter charts measure the acuity and contrast sensitivity for individual letters.
- Available in English and Spanish versions - each version was designed to measure the visual components of reading vision with stringent constraints on geometrical and linguistic properties.
- Accurate - chart's level of effectiveness has been validated by scientific research.
- Beneficial to eye care professionals and vision researchers - can be used to prescribe optical corrections and in clinical trials to assess the impact of eye treatments on reading vision.

Phase of Development: MNREAD® is a registered trademark of Regents of the University of Minnesota. Customers can purchase charts from Precision Vision.
Website: precision-vision.com
Phone: 800-772-9211
Email: ed@precision-vision.com

There is also a [MNREAD® app](#) available via iTunes app store.

https://license.umn.edu/product/continuous-text-reading-chart-for-eye-examinations-measures-reading-acuity-and-speed