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Visual Acuity Assessment: A Comprehensive Survey of Methods

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Abstract: *This review paper focuses on the various methods and tools available for measuring visual acuity, a crucial aspect of visual function that is used to diagnose and monitor a wide range of ocular disorders. The paper provides an overview of the basic principles of visual acuity measurement and examines the most used techniques, including Snellen charts, the Rossano-Weiss test electronic Measurement of Visual Acuity (eMOVA)test, and paper-based tests (PBVA). The strengths and weaknesses of each method are discussed, along with the factors that can affect the accuracy and reliability of visual acuity measurements. The paper also considers recent developments in visual acuity testing, such as the use of Natural Language Processing, Machine Learning along with smartphone apps, and explores their potential benefits and limitations. As a whole, this review paper provides a comprehensive and up-to-date analysis of the different approaches to measuring visual acuity and highlights the importance of careful consideration of the choice of the test method in clinical practice.*

Keywords: Acuity, Snellen Chart, eMOVA, Rossano-Weiss, vision

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