

### **Q3D: A DEVICE TO QUANTITATIVELY MEASURE VISUAL SUPPRESSION**

Vision disorders are the 4th most prevalent class of disability in the United States and the most prevalent handicapping condition in childhood. Early detection of visual suppression increases the likelihood of effective treatment and decreases the negative impact of conditions such as amblyopia, which affects 2-3% of children and is the most common cause of monocular visual impairments in young and middle-aged adults. Researchers at the University of Missouri-St. Louis have developed the **Q3D (Quantitative Three Dot) Test**, a handheld device that quantitatively measures the amount of visual suppression in a patient. Able to detect very small impairments and changes in suppression, the Q3D can catch suppression earlier than current methods. Quantified measurement allows for tracking intervention progress over time.

#### **POTENTIAL AREAS OF APPLICATIONS:**

- Measuring the depth of suppression in conditions such as amblyopia
- Quantifying an afferent pupillary defect from optic nerve abnormalities
- Measuring the progress and outcome of treatments
- Screening for binocular function

**PATENT STATUS:** U.S. Patent No. 7,686,452 (issued 3/30/2010)

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