What can we learn about strabismus from a 90 second gaze recording?
Rapid evaluation of oculomotor deficits in strabismus

Anna Kosovicheva (akosov@neu.edu)1, Melanie Kazlas2,3, David G. Hunter2,3, Peter Bex1

1Psychology, Northeastern University, 2Ophthalmology, Boston Children’s Hospital, 3Ophthalmology, Harvard Medical School

Purpose
Develop and test an efficient eye tracking procedure for automated measurement of strabismus and oculomotor metrics at a range of gaze postures.

Method
Strabismus: N = 8 (including 3 amblyopes)
Normally-sighted controls: N = 4
Shutter glasses allow monocular target presentation
Saccades recorded binocularly from interocular target switches and location shifts

Saccades I: Interocular Target Switches

Saccades II: Location Shifts

Fixation Stability

Conclusions
Eye tracking methods can be used to efficiently evaluate oculomotor function and ocular alignment at a range of gaze postures. Our procedure reveals strabismic deficits in three domains: (1) alignment (shifts following interocular target switches), (2) saccade characteristics, and (3) fixation stability.

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