

## Summary of Normative data for the redesigned Kay Pictures visual acuity test JAAPOS 2020

- **High monocular testability from 24 months**
- **Equal right and left acuities**
- **Small increase in acuity with age**
- **Less variability than other tests for this age group**

The paper by Anna O'Connor and Ashli Milling provides visual acuity norms for children with no ocular abnormality or known development delay between 20 and 57 months.

The results show a high monocular testability rate of over 74% from 2 years, rising to 95% by three years of age. Several children under 2 years were tested, but only one cooperated with monocular testing under research conditions.

There was no difference between right and left acuities at all ages, and a small, but statistically significant increase in acuity occurred with age.

Comparisons with previously published norms of HOTV and Lea Symbols show that those tested with the Kay Picture Test has more consistent mean visual acuity scores across all ages and less variability in acuities (numerically lower standard deviations).

The mean VAs and 95% confidence intervals for each age using the Kay Picture Test show a narrow confidence range, similar to those in a large HOTV study (Leone JF, Mitchell P, Kifley A, Rose KA. Normative visual acuity in infants and preschool-aged children in Sydney. *Acta Ophthalmol* 2014;92:e521-9)

The Lower Limit figure (2 standard deviations below the mean) is used as a guide to the lowest visual acuity level expected as normal result for any test and age group. The Kay Picture Test shows a lower limit increase with age from 0.24 at two years to 0.17 at five years, compared with 0.51 to 0.20 for HOTV for the same age range, and 0.46 at three years to 0.36 at five years for Lea Symbols.