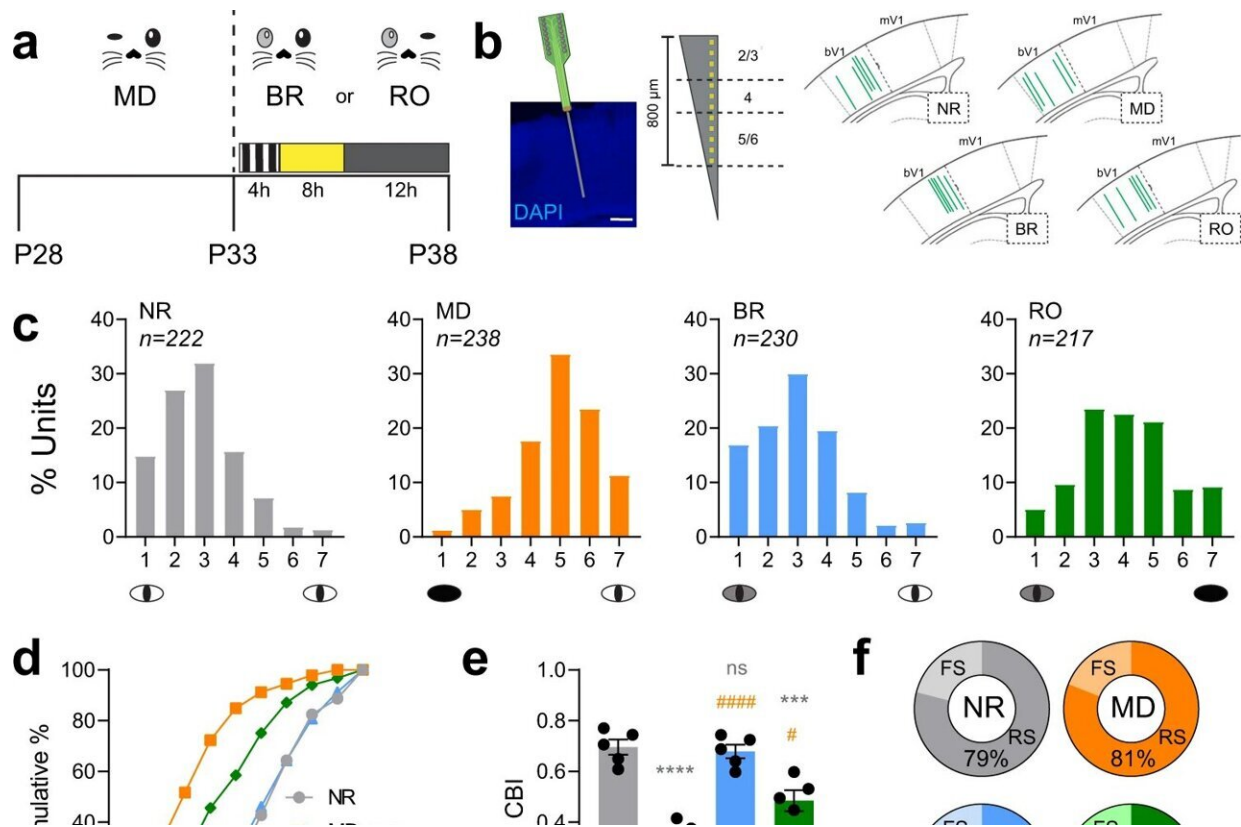


'Binocular' treatment followed by sleep found to help with a common vision problem

April 18 2023



BR is more effective than RO at reversing MD-induced ocular dominance shifts. **a** Experimental design. Mice underwent 5-day MD from P28-P33. MD mice were recorded at P33. Two recovery groups with either binocular recovery (BR) or reverse occlusion (RO) visual experience from P33-38 had daily 4-h periods of visual enrichment starting at lights on and were recorded at P38. Normally-reared (NR) mice were recorded at P38 without prior manipulation of vision. **b** Representative image of electrode probe placement in binocular primary visual cortex (bV1) coronal section stained with DAPI and enlarged view of electrode

contacts, which spanned the layers of bV1 (scale bar = 200 μm). Schematic of bV1 coordinates in coronal sections where green lines represent probe placements in bV1 for all groups. **c** Ocular dominance histograms from bV1 neurons recorded contralateral to the original DE for all four groups, using a 7-point scale (1 = neurons driven exclusively by contralateral eye; 7 = neurons driven exclusively by ipsilateral eye, 4 = neurons with binocular responses) $n = 5$ mice/group. **d** Cumulative distribution of ocular dominance indices for all neurons recorded in each group. **e** Contralateral bias indices for mice in each treatment group. One-way ANOVA: $F(3, 16) = 29.34, p$

Citation: 'Binocular' treatment followed by sleep found to help with a common vision problem (2023, April 18) retrieved 3 July 2023 from <https://medicalxpress.com/news/2023-04-binocular-treatment-common-vision-problem.html>

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