Supplementary Material

The effect of spectacle lenses containing peripheral defocus on refractive error and horizontal eye shape in the guinea pig

Supplementary Figure 1. Flow chart showing the timing of treatments and order of measurements undertaken. Lenses were worn on one eye of each animal, and the fellow eyes were left untreated as matched controls. Both eyes were measured in all animals.
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**Supplementary Figure 2.** Interocular differences in lens thickness (A-C), vitreous chamber depth (D-F), and anterior chamber depth (H-J), between the lens-wearing- and fellow eyes, measured by the *ex vivo* eye shape method. (A, D, H) Uni-focal lens-wearing groups (-4D vs. +4D). (B, E, I) Minus lens-wearing groups (-4D vs. -4/0D). (C, F, J) Plus lens-wearing groups (+4D vs. +4/0D). The optic nerve was located at 9° temporal to the optic axis and is represented by a vertical dotted line. Data from the plano UF group are shown by the grey filled circles. Asterisks (*) indicate the eccentricities in which significant differences (*p* < 0.05) were found from Holm-Sidak comparisons between the -4D and +4D UF groups (A, D, H) or between -4/0D PF and -4D UF groups (B, E, I) or between +4/0D PF and +4D UF groups (C, F, J). ‡ indicates a significant difference (*p* < 0.05) between the +4/0D and 0 D UF groups.
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Supplementary Figure 3. Mean ocular lengths measured ex vivo from images of sectioned eyes for untreated eyes taken from a separate study.¹ Note that these animals were of a different age than in the current study, but clearly show the presence of the broad pit located around the optic nerve exit. The optic nerve was located at 9° temporal to the optic axis and is represented by a vertical dotted line.

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Supplementary Figure 4. Correlation of in vivo (from ultrasonography) and ex vivo (at 0° from eye shape analysis) measures of: (A) Ocular Length, and (B) Vitreous chamber depth and crystalline lens thickness combined.