

# Parental astigmatism may increase risk for child astigmatism

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Parental astigmatism may confer an independent and dose-dependent

association with child astigmatism, according to a study published online Dec. 21 in *JAMA Network Open*.

Ka Wai Kam, from the Chinese University of Hong Kong, and colleagues examined the association between parental [astigmatism](#) and child astigmatism. The analysis included 5,708 familial trios, each comprising a child aged 6 to 8 years and both parents, participating in the Hong Kong Children Eye Study.

The researchers found that astigmatism of  $\geq 1.0$  D in both parents was associated with greater odds of refractive astigmatism (RA; odds ratio, 1.62) and corneal astigmatism (CA; odds ratio, 1.94) in the child. When both parents had astigmatism  $\geq 2.0$  D, the risk increased further (odds ratios, 3.10 and 4.31, respectively), with higher parental astigmatism conferring higher risks for both RA and CA in [children](#). There was a significant association between each parental astigmatism and corresponding child astigmatism (odds ratios, 0.76, 0.82, 1.70, and 1.33 for maternal RA, paternal RA, maternal CA, and paternal CA, respectively).

"The findings of this cross-sectional study suggest that parental astigmatism may confer an independent and dose-dependent association with child astigmatism," the authors write. "Children with [parents](#) with astigmatism should have early eye examinations for timely detection of astigmatism to facilitate age-appropriate vision correction and visual development."

**More information:** Ka Wai Kam et al, Association of Maternal and Paternal Astigmatism With Child Astigmatism in the Hong Kong Children Eye Study, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.47795](#)



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