

# Atopic dermatitis raises subsequent fracture risk in children: Study

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Atopic dermatitis (AD) in children is associated with an increased risk

for subsequent fracture, according to a research letter published online Nov. 9 in *Allergy*.

Seung Won Lee, M.D., Ph.D., from Sungkyunkwan University in Suwon, South Korea, and colleagues used data from the National Health Insurance Service in South Korea to examine the relationship between AD diagnosis and fracture. The analysis included 1.78 million infants born between 2009 and 2015, with follow-up through 2019.

The researchers found that when propensity-matching children and adjusting for confounders, children with AD had a 14 percent greater likelihood of developing fractures than controls (33.37 versus 28.88 per 1,000 person-years). There was a dose response observed, with the risk for fracture increasing with AD severity (28.88, 33.08, and 35.54 per 1,000 person-years for control, mild AD, and moderate-to-severe AD groups, respectively).

In an adjusted analysis, the risk for fracture increased in children with mild AD (adjusted hazard ratio [aHR], 1.12) and moderate-to-severe AD (aHR, 1.23). Furthermore, early-onset AD increased fracture risk (aHRs, 1.19, 1.08, and 1.03 for first diagnosis at age younger than 2 years, 2 to 4 years, and 5 years or older, respectively).

"Several factors may underlie the association of AD with fracture risk in children, including the interaction between immune and [bone cells](#), [dietary habits](#), calcium and vitamin D intake, [physical activity](#), psychological and behavioral disorders, sleep quality, and the effect of systemic corticosteroids on bone mineral metabolism," the authors write.

**More information:** Seung Won Lee et al, Fracture incidence in children after developing atopic dermatitis: A Korean nationwide birth cohort study, *Allergy* (2022). [DOI: 10.1111/all.15577](https://doi.org/10.1111/all.15577)

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