

# Farm-related immunoregulation tied to dendritic cell subset

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(HealthDay)—Lower levels of circulating myeloid dendritic cell subtype 2 (mDC2) in children who live on farms may contribute to a protective effect against asthma, according to research published online June 27 in *Allergy*.

Maria-Viola Martikainen, of the University of Eastern Finland in Kuopio, and colleagues studied the associations between circulating dendritic cells, asthma, and atopy in 82 farm children and 86 non-farm children, aged 6 years, with and without [asthma](#).

The researchers found a significantly lower percentage of mDC2 cells in farm children ( $0.033 \pm 0.001$ ) than in non-farm children ( $0.042 \pm 0.001$ ). Similar associations of lower percentage of mDC2 cells with prenatal exposure and lifetime exposure to farm milk and stables were significant but not independent from farming. Asthma was positively

associated with immunoglobulin-like transcript 4+ mDCs and negatively associated with cluster of differentiation 86+ plasmacytoid [dendritic cells](#), but these associations were observed only in non-farm children.

"Inverse association between farm exposure and mDC2 percentage suggest that this dendritic cell subset may play a role in farm-related immunoregulation," the authors write.

**More information:** [Abstract](#)  
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