Bed dust and the infant airway

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Video Byte

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Abstract

Although invisible to the naked eye, beds are teeming with microbial life, which might influence how the human body's own microbial communities form and develop, especially in infancy. To explore this hypothesis, researchers analyzed 577 dust samples from the beds of infants, as well as 542 airway samples from a child cohort study. The diversity of bacteria and fungi detected in bed dust correlated with one another, suggesting an interplay between the two types of organisms in bed dust. Additionally, the microbial makeup of bacterial and fungal communities in bed dust was influenced by different environmental factors. Bacterial communities were influenced by type of home, living environment, sex of siblings, and pets, whereas fungal communities were influenced by type of home and sampling season. There was limited evidence of microbial transfer between bed dust and infant airways. But given their constant exposure to the indoor environment, infants may still interact with dust in ways that affect their health.