

Should we recommend the avoidance of milk in children with milk allergy over 5 years of age?

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Cow's milk allergy (CMA) is one of the most common food allergy, affecting approximately 1% to 3.8% of infants and young children.¹⁻⁴⁾ Studies from the 1980s and 1990s demonstrated the prognosis of developing tolerance to cow's milk to be good, with the majority outgrowing their allergy by 3-6 years of age.^{5,6)} But a recent study suggested that the natural history of CMA might have changed over time, with slower rates of resolution and a higher proportion of children with disease persisting into adolescence and even adulthood. A large population-based cohort in Israel demonstrated that only 57% of children with CMA resolved their allergy before the study completion by age 4 to 5 years.⁷⁾ In a large study from a US tertiary care center, 19 % developed tolerance by 4 years of age, 42 % by 8 years of age, 64 % by 12 years of age, and 79 % by 16 years of age.⁸⁾ In a multicenter longitudinal US study of 293 children with milk allergy, resolution of the allergy occurred in 53 % of subjects at a median age of 5.3 years.⁹⁾

High temperatures break down conformational epitopes (amino acids brought into close proximity through protein folding) of milk proteins, thus reducing the allergenicity of this food for many individuals.¹⁰⁾ The introduction of the extensively heated milk into the diet not only has quality-of-life benefits but also has therapeutic potential. Kim et al. reported that those who were able to tolerate baked milk products and incorporated them into the diet were significantly more likely to become tolerant to unheated milk within 5 years than the comparison group that maintained strict milk avoidance.¹¹⁾

Although it is helpful to patients with food allergies and their families to introduce foods when they are safely tolerated, larger studies are needed to determine whether ingestion of baked milk is solely a marker of transient milk allergy, or a treatment to induce tolerance. And data are required from a trial comparing the resolution rates of baked-tolerant participants who are randomized to ingest or avoid baked products to assess the accuracy of this hypothesis.

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