

Bacterial colonization linked to food sensitization, allergy

June 27 2017



(HealthDay)—There is a correlation between bacterial colonization and

food sensitization and allergy in young children, according to a study published online June 20 in *Allergy*.

Jessica H. Savage, M.D., from Brigham and Women's Hospital in Boston, and colleagues collected intestinal microbiome samples at age 3 to 6 months in children participating in the follow-up phase of an interventional trial of high dose vitamin D during pregnancy. The participants were assessed for [food](#) sensitization at age 3. Food allergy was defined as caretaker report of health care provider-diagnosed allergy before age 3 with evidence of immunoglobulin E sensitization.

The researchers found that there were 87 cases of food sensitization and 14 cases of food allergy among 225 children for whom complete data were available. There was no difference between food sensitization and food allergy cases and controls in terms of microbial diversity measures. Among subjects with food sensitization, the genera *Haemophilus*, *Dialister*, *Dorea*, and *Clostridium* were underrepresented; among subjects with food allergy, the genera *Citrobacter*, *Oscillospira*, *Lactococcus*, and *Dorea* were underrepresented.

"The temporal association between [bacterial colonization](#) and food sensitization and allergy suggests that the microbiome may have a causal role in the development of food allergy," the authors write. "Our findings have therapeutic implications for the prevention and treatment of [food allergy](#)."

One author is an employee of Vertex Pharmaceuticals.

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Citation: Bacterial colonization linked to food sensitization, allergy (2017, June 27) retrieved 18 April 2024 from

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