

Early exposure to gluten may help babies avoid celiac risk: study

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Swedish experts say introducing grain-based foods at 4 months, while still breast-feeding, may cut risk.

(HealthDay)—Modifying an infant's diet to include the protein gluten while the mother is still breast-feeding could lower the risk of celiac disease, a common intestinal disorder, according to a new Swedish study.

That finding may sound counterintuitive, because celiac disease is a condition in which the lining of the small intestine is damaged by gluten-containing foods.

However, the researchers who conducted the study speculate that there may be a window of opportunity in which an infant can develop tolerance to the [protein](#) to possibly escape getting the disease.

"We now have proven this way of introducing gluten reduces the risk of getting celiac disease," said Dr. Anneli Ivarsson, a pediatrician at Umea

University in Umea, and lead author of the study published online Feb. 18 and in the March print issue of the journal *Pediatrics*.

Gluten refers to proteins found in specific grains, including all forms of [wheat](#) and related grains such as [barley](#) and rye, according to the Celiac Disease Foundation.

Celiac disease affects about 1 percent of the population, according to Ivarsson. Genetic susceptibility plays a role. For those affected, a life-long gluten-free diet is advised.

Ivarsson and her team compared two groups of Swedish children: one born in 1993, during a time when the diagnosis of celiac disease increased four-fold, and the other group born in 1997, when it declined about the same amount. The children born later had a 25 percent lower risk of having celiac disease than those born earlier, they found.

"That's quite a lot," Ivarsson said.

While 2.9 percent of those in the earlier born group had the disease, 2.2 percent of those in the later-born group did.

The beginning and the end of the period in which the celiac disease diagnoses rose were both marked by changes in recommended feeding of infants, including the best age to introduce gluten-containing foods, the researchers noted.

In 1982, experts recommended that gluten-containing foods not be given until an infant was 6 months old. In 1996, the experts recommended that gluten be introduced from 4 months on.

Experts know that a baby develops what they call oral tolerance to an antigen (a substance that produces protective antibodies) early in life.

Celiac disease "can be viewed as a failure to develop oral tolerance to gluten, or a later loss of this tolerance," Ivarsson wrote in her report.

In her study, babies born in the later group, who were introduced to gluten-containing foods at 4 months on, were less likely to develop celiac disease.

"We can't prove there is a window of opportunity" for developing tolerance, Ivarsson said, but that is one speculation.

The findings suggest—but don't prove—that gradually introducing gluten-containing foods in small amounts from 4 months of age, ideally while breast-feeding is ongoing, may protect against celiac disease.

Why should breast-feeding go along with it? "Breast milk has been shown to promote healthy bacteria in the gut," Ivarsson said.

If mothers can breast-feed, they should, she added. However, genetic susceptibility also plays a role, she said, so a child could still get celiac disease despite following the feeding recommendations.

If a child does show symptoms, get early treatment, she said. Symptoms include chronic diarrhea or constipation, abdominal cramping and gas.

"This is actually what we have been advising" for feeding, said Dr. Peter Green, director of the Celiac Disease Center at the Columbia University Medical Center in New York City.

"We often get asked by people who are having a baby and there is celiac disease in their family, what could they do to reduce the risk of the baby getting celiac disease?" Green said. "We've actually been advising the parents to breast-feed and introduce a little gluten between 4 and 6 months." The recommendation is based on other research also finding

that approach to be effective, he added.

The American Academy of Pediatrics has no official recommendations about reducing celiac disease risk, but its experts say that the risk of celiac disease is reduced 52 percent in infants breast-fed at the time gluten is introduced.

More information: To learn more about celiac disease, visit the [Celiac Disease Foundation](#).

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