

## DNA test could help people with severe food allergies avoid peanuts

For people with severe peanut allergies, eating even minuscule amounts of the legume can trigger anaphylaxis — a life-threatening condition characterized by dizziness, breathing difficulties and, sometimes, loss of consciousness. Now, researchers have developed a sensitive new test to detect trace amounts of peanuts in foods using the peanuts' DNA. They report their results in [the] [Journal of Agricultural and Food Chemistry](#).

...

People with known allergies are usually careful to avoid foods containing peanuts, but small amounts sometimes contaminate foods that don't list peanuts as an ingredient. Scientists have developed several methods to detect peanut allergens in foods; however, most of these test for proteins that can be destroyed during food processing. In contrast, DNA is typically more stable than proteins.

...

The team designed a [test] to detect three short DNA sequences found in peanut [chloroplasts](#) [where photosynthesis occurs]. By targeting the three regions at once, the researchers had greater confidence that the results were specific for peanut chloroplast DNA. They spiked six different foods, which varied from blueberry muffins to tomato salsa, with small amounts of the legume. The assay detected peanut in all of the foods over a broad range of spiked amounts, with a detection limit of about 1 part per million (ppm), compared with 10 to 50 ppm for previous PCR assays targeting nuclear genes.

**Read full, original article:** [DNA-based method detects trace amounts of peanut in foods](#)