

ONLY CONNECT **Nicholas A Christakis**

This allergies hysteria is just nuts

A crackdown on nuts is making things worse in a cycle of over-reaction and increasing sensitisation

At this time of year many municipal elementary schools in the United States, including the one attended by my children, raise money by selling wrapping paper and candy. This year parents in our school were told that they could no longer pick up their purchases from their children's classrooms. Instead they had to pick up their orders from a loading dock at specified times, to avoid a danger to the children.

The danger? Some of the orders contained sealed tins of festive nuts. Out of an overabundance of caution the school decided not to allow any of the items on the premises. This decision came on the heels of another recent event: a peanut was spotted on the floor of a school bus, whereupon the bus was evacuated and cleaned (I am tempted to say decontaminated), even though it was full of 10 year olds who, unlike 2 year olds, could actually be told not to eat food off the floor.

The number of schools adopting such measures and even, like our school, declaring themselves to be entirely "nut free" is, by all accounts, rising. Not only are nuts and staples like peanut butter prohibited from campus, but so too are homemade baked goods or any foods without detailed ingredient labels. School entrances have signs admonishing visitors to wash their hands before entry to avoid contamination.

The justification offered for these measures is that children with nut allergies can react even to traces of nut dust in the air and that natural oils in nuts can leave residues that are difficult to remove with conventional cleaning products. There are three problems with this charade. Firstly, these responses represent a gross over-reaction to the magnitude of the threat. Secondly, there is no scientific evidence that the particular restrictions being imposed are effective or that they warrant the costs incurred. And, thirdly, and most importantly, these responses are making things worse.

About 3.3 million Americans are allergic to nuts, and even more—6.9 million—are allergic to seafood. However, all told, serious allergic reactions to foods cause just 2000 hospitalisations a year (out of more than 30 million hospitalisations nationwide). And only 150 people (children and adults) die each year from all food allergies combined.

Compare that number with the 50 people who die each year from bee stings, the 100 who die from lightning strikes, and the 45 000 who die in motor vehicle collisions. Or compare it with the 10 000 hospitalisations of children each year for traumatic brain injuries acquired during sports or the 2000 who drown or the roughly 1300 who die from gun accidents. We do not see calls to end athletics. There are no doubt thousands of parents who rid their cupboards of peanut butter but not of guns. And more children assuredly die walking or being driven to school each year than die from nut allergies.

The issue is not whether nut allergies exist or whether they can occasionally be serious. Nor is the issue whether reasonable accommodation should be made for the few children who have documented serious allergies. The issue is what accounts for the extreme responses to nut allergies and what to do about the responses and the allergies themselves.

The responses bear many of the hallmarks of mass psychogenic illness (MPI), previously and quaintly known as "epidemic hysteria." MPI is a social network phenomenon involving otherwise healthy people in a cascade of anxiety. Outbreaks typically occur in small towns and in schools, factories, and other institutions, and they are most often prompted by fears of contamination. It does indeed provoke anxiety to imagine a hidden, deadly danger in so innocent a thing as having a snack in kindergarten. And being around others who are anxious



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heightens one's own anxiety.

Seeing the concern about nut allergies in schools as a type of MPI is helpful in two ways. Firstly, the wholesale avoidance of nuts contributes to the problem by resulting in children who, lacking exposure to nuts, are actually sensitised to them. Through a feedback loop, the policy of avoidance ends up creating the epidemic it is trying to stop. One recent UK study of more than 10 000 children documented that early exposure to peanuts reduces, not increases, the risk of allergy (*Journal of Allergy and Clinical Immunology* 2008;122:984).

Secondly, well intentioned efforts to reduce exposure to nuts actually fan the flames, since they signal to parents that nuts are a clear and present danger. This encourages more parents to worry, which fuels the epidemic. It also encourages more parents to have their children tested, thus detecting mild and meaningless "allergies" to nuts. And this encourages still more avoidance of nuts, leading to still more sensitisation.

The cycle of increasing anxiety, draconian measures, and increasing prevalence of nut allergies must be broken. The recommended treatment for outbreaks of MPI focuses on the social and psychological nature of the epidemic. Guidelines for an acute outbreak include "providing reassurance . . . [and] using a calm and authoritative approach" (*Epidemiological Reviews* 1997;19:233).

A similar strategy is needed for the chronic case of school based nut allergies we are facing. We teach our kids that honesty is the best policy. When it comes to nut allergies we should expect no less from ourselves. **Nicholas A Christakis is professor of medical sociology, Harvard Medical School, and attending physician, Mt Auburn Hospital, Cambridge, Massachusetts christak@hcp.med.harvard.edu**

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