

Food Allergy Awareness Among Catering Staff

Summary Document

Introduction

Since the 1950s, the incidence of allergies in developed countries has shown a steady rise. This is particularly noticeable where food allergy is concerned. For example, peanut allergy – the most common food allergy to cause fatal or near fatal reactions – has trebled in the last twelve years affecting almost 2% of school-age children. If you work in the food industry, particularly in the catering sector, you need to know how you can control peanut and other food allergens on your premises.

The safefood Synergy Programme was established to carry out rapid surveys to identify and address gaps in food safety knowledge. A survey on food allergy awareness was carried out as part of the Programme for 2006. The survey investigated the level of awareness among catering staff with regard to the risks to customers who have a food allergy. This was achieved in part by determining the peanut content of products ostensibly sold as being suitable for someone with a peanut allergy. More general questions were put to catering staff to ascertain their level of knowledge on this issue. The survey used peanuts as the model allergen.

This booklet outlines the results of the survey and gives information on peanut allergy, its prevalence and control. The full report is available on the safefood website at www.safefood.eu

The Survey

The survey combined a quantitative analysis of samples for peanut protein with a qualitative assessment of the response from catering staff.

During the survey, Environmental Health Officers (EHOs) from the Republic of Ireland and Northern Ireland purchased sandwiches, cakes and a small number of ice cream samples to check their suitability for consumption by someone with a peanut allergy. Most of the samples were prepared on site for sale at the same premises. They were not pre-packaged and therefore not subject to allergen labelling legislation.

Catering staff were questioned on the peanut content of the products they were selling. The EHOs also noted the certainty with which staff made recommendations on the peanut content as well as their overall level of awareness of the issue. The samples were then analysed for traces of peanut protein.

The EHOs were asked about their professional experience in food allergy management which may have been gained either through sampling exercises or previous training. They were also asked if they would consider further training in food allergy management worthwhile.

Findings of the Survey

Over half the samples that contained peanut came with the wrong advice from catering staff.

Foods were sampled from 161 premises of eight types, namely cafés, delicatessens, forecourt shops, ice cream stalls, kitchen/home bakeries, market stalls, sandwich bars and supermarkets. Staff were asked to advise on the peanut content of the products that they were selling to the EHO who also noted the ingredients.

Of the 316 food samples taken from these premises, 29 samples of cakes and sandwiches (9.2% of total) contained peanut protein. Four of these were clearly described as containing peanuts or satay. However, the ingredients of the other 25 samples (8% of the total) did not give any indication that they contained peanut protein. These 'positive' samples were purchased in 20 different premises (12% of total). While there were

no unique ingredients in these samples, the presence of almonds or other nuts seemed to increase the likelihood of peanut protein being present. Eleven of the positive samples (44%) had enough peanut to provoke an allergic reaction. There were no notices or warning signs in these premises advising customers that the products could contain peanuts. Indeed, notices or signs concerning peanut or food allergy were only seen in 8% of premises overall.

Of the 25 samples found to contain peanut when analysed, over half (16) were incorrectly described by staff as 'not containing' or 'probably not containing' peanuts. Those who claimed their products 'did not contain peanut', when they did, were, for the most part, certain

in making their recommendation. For the majority of these, the EHO felt that they showed an awareness of the issue. Staff who claimed their products 'probably did not contain peanut', when they did, were generally hesitant about making their recommendation and none of these showed any awareness of the issue. This suggests that even the most confident advice may be misplaced and this could have serious consequences for the food allergic customer.

Overall, 46% of staff showed an awareness of food allergy. Owners and managers were generally more aware of the issue than their employees and were more cautious about advising that a food item was peanut-free. In judging the confidence of staff to be able to recommend a peanut-free product, 43% were confident, while 32% were hesitant.

This study did not prove or disprove that language is an issue in communicating the risks associated with serving foods containing peanut. However, the increase in the number of workers in the catering sector who do not speak English as their first language should be considered when planning any future education or awareness work.



Environmental Health Officers

EHOs are overwhelmingly supportive of further training and guidance in food allergy management.

The survey found that approximately 30% of all EHOs had received training or guidance on food allergy management. Approximately 66% of EHOs from Northern Ireland reported they had taken part in food allergen-related sampling activities. This compared to just 11% of EHOs in the Republic of Ireland. Similarly, a higher proportion of EHOs from Northern Ireland had attended training events such as conferences and update seminars compared to their southern colleagues.

EHOs from both jurisdictions recognised the need for further training. This was particularly evident if they had been involved in previous sampling activities, in which case support for further training was at an overwhelming 96%. Several EHOs expressed a need for training that would cover the major allergens which are now required to be identified on packaged food labels.

Peanut Allergy

Peanut allergy is one of Ireland's most serious food allergies. Although it affects a very small proportion of the population, exposure to even small traces of peanut can kill.

Causes

It is not clear why someone develops an allergy to food. People with conditions like asthma, eczema or hay fever, or families that have these conditions, seem to be more prone to developing allergies in general. Most fatalities have occurred in people with pre-existing asthma.

One widely-supported explanation for the development of allergy is called the hygiene hypothesis. It proposes that good hygiene, and therefore less exposure to infectious agents, results in a flawed immune system. The immune system then treats otherwise harmless foods like peanuts as dangerous and so reacts to them. The theory is that the more infections a person is exposed to, especially in early life, the 'busier' their

immune systems will be and, therefore, the less likely they are to develop allergies. However, this is still just a theory.

Symptoms

Allergic reactions can range from slight to severe. Slight symptoms could include a runny nose, hives, flushing and itching of the skin. Severe symptoms include swelling of the throat and extreme lowering of blood pressure (anaphylactic shock), both of which can be fatal. Food allergy is the most common cause of anaphylactic shock outside the hospital setting and an allergy to peanut is the most common food allergy to cause fatal or near fatal reactions.

Prevalence

The United States cites peanuts as the cause of over one hundred deaths each year and somewhere in the region of fifteen thousand visits to hospital Accident and Emergency services. According to UK statistics, it is estimated that at least ten people die each year because of food allergies. Peanuts have been implicated in many of these deaths.

UK research also suggests the prevalence of peanut allergy among children at school entry level has tripled from 0.6% to 1.8% in the period from 1996 to 2005. The prevalence of food allergies among children is greater than among adults, with many children appearing to 'grow out' of their allergies (around 5-8% of children have food allergies but less than 2% of adults are affected). It is still unclear if children can avoid becoming allergic to peanuts by introducing them into their diet, thereby building up a tolerance. However, people with a severe peanut allergy tend to carry their allergy into adult life, especially if they have other allergies as well.



Managing a Peanut Allergy

Exposure to even small traces of peanut has the potential to kill the allergy sufferer.

There are no widely-available medical treatments to prevent someone taking an allergic reaction. Medical treatment is generally provided after an allergic reaction has taken place either by the patient's use of antihistamines or, if the reaction is severe, by self medication with an adrenaline (epinephrine) auto-injector followed by hospital admission. Avoidance is the key to controlling peanut allergy and those at risk must avoid contact with peanut in any form.

Avoiding foods like peanuts in packets or peanut butter in jars is relatively easy (although peanuts can also be described as ground nuts, earth nuts, goobers, goober peas, pindas, monkey nuts or Chinese nuts). It is more difficult where peanut could be a hidden ingredient in

food. Peanut traces can occur in a wide range of foods, cosmetics and even in medicines where the ingredient labelled arachis oil is, in fact, peanut oil. Peanut oil is also used in cooking: there are two main types – refined and unrefined or 'crude'. Experts believe that refined peanut oil is unlikely to cause allergic reactions. However, unrefined peanut oil is considered unsafe. Unrefined peanut oil is likely to be used in ethnic restaurants because of its characteristic flavour.

Other potential sources of peanut include: almond and hazelnut paste (where there may be contamination in the production factory), marzipan, nougat, icing and glazes, artificial nuts, baked goods (as a deliberate ingredient), cereals, cereal bars and protein drinks.

Peanut is also found in biscuits and pastries, ice-cream, desserts, battered food, oriental and Indian dishes including curries, satay sauces and vegetarian dishes including veggie burgers, made-up salads and salad dressings. In most instances, peanut is a deliberate ingredient of the food, but there may be traces present caused by cross-contamination in the production factory.

It is sensible for peanut allergy sufferers to have a plan in place to deal with an allergic reaction. Those at risk of a severe reaction may carry an auto-injector pen. They can use this to self-administer adrenaline (epinephrine) in the event of a reaction. For young children, any plan must include guardians, childminders, teachers, etc. It is also good practice for family and friends to be trained in how to administer adrenaline (epinephrine) if the allergic person cannot do it for themselves.



Food Safety Issues

The majority of people who take an anaphylactic reaction due to a peanut allergy do so following consumption of food in a catering setting. It is vital that catering staff play their part in protecting the health of their allergic customers.

All catering businesses have a legal requirement to sell safe food. They are also required to assess and control food safety hazards. Traditionally, this included good temperature control of hot and cold foods and prevention of cross-contamination of cooked food by raw food. Food allergies are an emerging risk and, like any other risk, should be considered and handled in the same systematic way.

When a customer explains that they have a food allergy and asks if a food is suitable for them, the business must have a system in place to handle their request and give them accurate advice. All staff should get basic training in food allergen management when they first start work so they are aware that the

request must be taken seriously. The request should always be passed to a responsible senior member of staff who can then talk to the customer to find out just what foods and ingredients they are trying to avoid.

The staff member needs to find out the ingredients of the food and the potential for allergen cross-contamination. This can be done by examining the label on the ingredients packaging for allergen information, by examining recipe information and by assessing the cross-contamination risks through considering how the food was prepared. This information should then be given to the customer who must make the final decision as to whether or not the food is suitable for them.

EHOs visit food businesses regularly to ensure that food is produced safely. They are well-placed to make food businesses aware of the issues surrounding food allergies. With suitable updated training, they can cascade that information to all catering businesses.



Key Facts

- Peanut allergy affects less than 2% of the population but can be fatal and causes much anxiety in sufferers.
- People with peanut allergies are most at risk when eating in commercial catering settings.
- Of the products bought during the survey, just under 10% contained peanut protein.
- Over half the products that were found to contain peanut protein were described by staff as 'not containing' or 'probably not containing' peanuts. Many catering staff are unaware of the allergen content of the foods they sell.
- Approximately half of all staff interviewed showed an awareness of the issue of food allergy but this did not seem to influence the accuracy of the advice given to the allergic customer.
- Most of the samples that contained peanut protein did not contain any obvious peanut-based ingredients and probably did so as a result of hidden ingredients or cross-contamination during product make up.
- Food businesses should train all staff in food allergy awareness. They should also set up a system to advise and protect the allergic customer.
- Almost all EHOs wanted more training and guidance in food allergy management.

Acknowledgements

safefood would like to thank the following individuals for their contribution to this report:

Environmental Health Officers in both the Republic of Ireland and Northern Ireland. Dr.'s **Michael O'Sullivan**, **Elizabeth Horne** and **Niamh Murphy** of Dublin Public Analyst's Laboratory.

Dr Ian Leitch, Environmental Health Department, Omagh District Council, Northern Ireland.

In addition, **safefood** acknowledges the support of the following:

Dr Kathleen O'Sullivan, Director of the Statistical Consultancy Unit, School of Mathematical Sciences, College of Science Engineering and Food Science, National University of Ireland, Cork.

