

POTENTIALLY FATAL ANAPHYLAXIS DUE TO PEANUTS (AND OTHER FOODS)

Information for Schools

Background As with asthma, the true incidence of food allergy, and in particular peanut allergy, is increasing; up to 1 in 70 children is sensitised to peanut and about half of these will experience symptoms on exposure. Unfortunately there is also a large number of people who believe themselves to have food allergy but who do not in fact have an allergy in the medically recognised sense.

Ideally, all individuals with suspected food allergy should be assessed at a recognised allergy clinic, especially if anaphylactic features are reported. A list of NHS allergy clinics is available from the British Society for Allergy and Clinical Immunology (BSACI) – see links at end.

Identifying Individuals at Risk

The medical histories of new pupils should be carefully scanned to identify possible cases. Medical questionnaires not returned by the start of the term should be energetically chased. New pupil medicals should be prioritised so that pupils with significant medical conditions are seen first.

A widespread urticarial rash, swelling of the mouth, tongue or throat, abdominal pain, nausea or vomiting, wheezing and especially **fainting or collapse** after eating the allergen suggest a potentially serious sensitivity. In most series, the following factors were associated with a fatal outcome:

allergy since early infancy

co-existing asthma

young age

The observed strength of the reaction is the most reliable guide to the severity of the condition. Blood tests for IgE antibody can identify potential allergens, but are not a reliable guide to the degree of risk. As with all laboratory tests, they must be interpreted in the light of the clinical picture. If there is a clear history of anaphylaxis, even a weak IgE reaction is significant.

Advice to Sufferers

Avoiding the allergen is the mainstay of prevention. They must be aware that peanut may be found "hidden" in a variety of unlikely foods. These include cooking oils, sweets, puddings, ice-creams and confectionery, pie cases and crusts, gravies and sauces. In very sensitive individuals, the reaction is so strong that merely licking the food or touching it to the lips produces a noticeable reaction, and this can be a useful screening test for suspect foods.

Which other foods might cause concern?

Although peanuts are actually peas (legumes) and not nuts, serious allergy to true nuts (walnuts, almonds, brazils and so on) also occurs, sometimes in association with peanut allergy. Shellfish and true fish can also cause anaphylaxis. There is sometimes cross-sensitivity between peanut and soya, but in such cases soya products themselves do not carry the risk of serious anaphylaxis.

Egg sensitivity occurs in younger children, but this is not a danger with teenagers. Many other foods, including strawberries and some mushrooms, can cause an unpleasant urticarial reaction, but fatal anaphylaxis is not seen.

Advice to the School

- The presence in the school of a susceptible pupil must be circulated to all those who need to know, including especially catering staff.
- Consider asking caterers not to use the allergen at all. This is certainly feasible in the case of, for example, peanuts, if there is a pupil at high risk and it is known to be the only allergen. In the case of fish a total ban seems impractical.
- Label foods in which the presence of the responsible ingredient is not obvious. This would include dips, casseroles, soups, stews, meat dishes, puddings and so on. It is not necessary if the presence of the food is obvious, e.g. fried fish, whole peanuts in biscuits. Labelling as a routine would also cover the school against the risk of a visiting sufferer dining as a guest.
- Consider keeping Adrenaline at strategic locations e.g. Dining Hall, Sports Pavilion, Boarding House. Offer training to other school staff on the use of Adrenaline self-injection devices.

Medical and Nursing Staff must be up to date with resuscitation procedures and treatment of anaphylaxis. There should be a written protocol for anaphylaxis treatment, readily to hand; few of us have recent first-hand experience and it is easy to get rusty. Drugs should be regularly checked and changed before they go out of date. Oxygen and other resuscitation equipment should be regularly serviced and replenished. Training in basic CPR should be offered to other school staff.

Treatment of an attack

- Call for help – Dial 999
- Give IM Adrenaline 0.5mg (0.5 ml of 1:1,000), repeated after 5 minutes according to the response. (Half this dose for 6-12 year old or small or prepubertal child).
Consider one Adult EpiPen or Anapen = 0.25mg Adrenaline.
- If collapsed, lie flat, elevate legs, give IV fluids to restore BP.
- Treat bronchospasm with nebulised Salbutamol (or other β -agonist),
- Give Oxygen.
- Cardiopulmonary resuscitation and emergency tracheotomy may be needed. Laryngospasm can be intense and intubation difficult.

To prevent relapse after successful treatment give steroid and antihistamine, orally or IV:
Prednisolone 20-30mg + Piriton 8mg by mouth

or

Hydrocortisone 200mg IV + Piriton 10mg IV diluted in syringe with blood, given slowly over 1 minute.

Admit to Hospital Anaphylaxis can recur several hours after initial recovery.

1) **If in doubt, give Adrenaline. If not needed, it is unlikely to be harmful.** If needed, its omission could be fatal.

2) Susceptible individuals can carry Adrenaline in an auto-injector for easy self-administration or use by a non-medically-trained bystander.

- Anapen Adult (0.3mg) and Anapen Junior (0.15mg)
- EpiPen (0.3mg) and EpiPen Junior (0.15mg)

Note that for a 12+ year old 2 adult devices may be needed for initial treatment. There is a “dummy” syringe available for training. Packs are available containing two pens and a trainer.

Many schools find it useful to set up a protocol agreed between the medical centre, the school and the parents setting out the role of each in the management of a pupil with anaphylaxis. A sample protocol is available on the Anaphylaxis Campaign website (see below).

Useful addresses and contacts

Anaphylaxis Campaign

PO Box 275, Farnborough, Hampshire GU14 6SX

Tel: 01252 542029

www.anaphylaxis.org.uk

A self-help and pressure group for sufferers. Has sections for health professionals and schools and updates from the food industry. Balanced and informative, extremely helpful.

British Society for Allergy and Immunology (BSACI)

17 Doughty Street, London, WC1N 2PL

Tel: 0207 404 0278

www.bsaci.org