

Flying with food allergies – best practice

Air travel can be difficult for people with food allergies and their families. On top of the stress of the airport, they worry about having a reaction during the flight – and not being able to call an ambulance to help them. Severe reactions can be life-threatening but cannot be predicted: that's why everyone must take food allergies seriously. Cabin crew must be trained to help someone with an allergic reaction – indeed, this is a UK regulatory requirement.

A recent independent report for the UK government has highlighted that there is concern around the understanding of allergies and how passengers with allergies can be supported whilst flying.¹

Understanding the risks

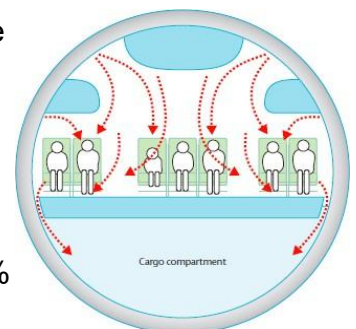
The UK Civil Aviation Authority (CAA) recently asked scientists at Imperial College London to look at the evidence around keeping food-allergic people safe when flying. The key findings were:

- Allergic reactions to food are less common when flying – probably because of the steps people with food allergy take to keep themselves safe, for example, not eating foods they are unsure about and having their rescue medicines (such as injectable adrenaline) with them. So passengers with food allergy can fly and stay safe.
- Food allergens are “sticky” – so food allergens are easily transferred on to tray tables, seat-back video screens, toilet door handles etc. If someone with a food allergy then touches that surface, the allergen can end up on their hands and then on to something they eat, which could cause a reaction. So cleaning the seating area is key to reduce risk.
- People at risk of anaphylaxis should be prescribed two self-administered adrenaline devices (such as an adrenaline “pen”, like EpiPen or Jext).
- Passengers should keep their adrenaline devices with them in the cabin and not check them into hold luggage. If they are not sitting close to their cabin bag, they should take their adrenaline devices out so they are close by.
- In the UK and most other countries, passengers do not need a doctor's letter to take adrenaline “pens” through airport security, nor do they need permission from the airline.
- Airlines should have their own supply of “back-up” adrenaline autoinjectors on board, in case of an anaphylaxis emergency. Some airlines already do this.
- Airlines should have clear policies relating to food allergies, which are easy to access from their website or upon request.

Can people react to “food allergens in the air”?

Modern aircraft have “Environmental Control Systems” which provide a safe and comfortable environment for passengers and crew:

- Air flows from the top of the cabin, down and across into vents in the floor. This prevents air from going forwards or backwards along the cabin, minimising the chance of bacteria / viruses and other contaminants (such as food particles) travelling through the air.
- The cabin air is completely changed every 3-4 minutes (in hospital wards, this only happens every 10 minutes).
- The air also passes through HEPA filters. This removes over 99.97% of any food allergen particles that could be in the air, so they cannot recirculate into the cabin.



¹UK Department for Transport. Independent report from the Avia7on Accessibility Task and Finish Group. 16 July 2025. Accessible at <https://www.gov.uk/government/publications/avia8on-accessibility-task-and-finish-group-report/avia8on-accessibility-task-and-finish-group-report>

Many people think that foods such as peanut can travel through the air and cause reactions. However, scientific evidence suggests this is a very unusual:

- Very few foods are easily aerosolised. Even for peanut, when deshelling nuts, peanut can only be detected immediately above the nuts and not further away.
- There are some exceptions: people allergic to fish / seafood can get hay fever-like symptoms or even asthma if the food is cooked near them, or when walking past raw fish (for example, in a shop) – this is because the proteins in fish / seafood evaporate at room temperature.
- Rarely, some people report reacting to milk if they are close to milk being heated with a steam wand (for example, to make milk froth for coffee).
- In-flight meals are usually precooked in ground kitchens and then sealed into the meal containers. This reduces the chance of any food allergens escaping into the air.

So why do people think “airborne nuts” are a cause of allergic reactions?

Reactions do happen – but it is far more likely this is because of peanut or other food allergens present on surfaces such as seats, trays and seat-back video screens from previous flights. If someone with a food allergy then touches these surfaces, the food can be transferred to their hands and then to their mouth/face or on to something they eat – causing a reaction.

Airlines often turn around aircraft quickly without a complete clean, for operational reasons and to reduce costs to passengers. This is why “nut bans” on individual flights won’t help – there may be allergen present from previous flights. Unless a specific plane has always been “nut free”, there can be residual nut allergen on surfaces. Bans also cause a false sense of security, as not everyone will follow them and people “let their guard down” (this is why the UK government does not recommend “nut bans” in schools). People aren’t just allergic to nuts: many are allergic to “core” foods such as milk or wheat, which cannot be easily removed from meal service. So it isn’t possible to guarantee a 100% allergen-free environment.

What can passengers with food allergy do to stay safe?

- Check ahead of travel and read the airline policy so you know what to expect when flying.
- Airlines should allow passengers with a food allergy to preboard, if requested, to give them time to clean the seat area (including tray table and seat-back entertainment system). Passengers should note that this may not always be possible, for example if passengers are bused together to an aircraft at a remote stand.
- Use a wet wipe (alcohol-based wipes are less good at removing sticky foods). Passengers will need to bring their own wipes. Wearing disposable gloves is helpful as it means they don’t have to wash their hands afterwards.
- It is also a good idea for passengers to keep some spare wipes with them, to wipe their hands clean after touching toilet handles, overhead lockers etc.
- Airlines may ask for “proof” that someone has a food allergy for preboarding: passengers can show their adrenaline device (for example, adrenaline “pen”) or a letter / allergy plan from a doctor / clinic, if needed.
- On short haul flights, airplanes may only be cleaned overnight – so some passengers may choose to fly first thing in the morning.
- Passengers at risk of anaphylaxis must keep their adrenaline devices with them in the cabin (and not checked into hold luggage).
- Airlines must be able to provide information about food allergens in meals, on request. However, in some countries, there is no legal requirement for caterers to declare food allergens, so the crew may not always have detailed information about allergens in in-flight

meals – in this case, they should clearly say so. Bring some “safe” foods to eat, just in case.

- We do not recommend passengers wear face masks to avoid food allergens: as explained above, airborne allergens pose hardly any risk and people tend to fiddle with masks, which can lead to food allergens concentrated into the face mask.

What if a food-allergic passenger requests something to be removed from on-board service?

- There is no evidence that removing most allergens from in-flight meals reduces risk, nor is it easy to do so as meals are usually prepared before the flight. Therefore, the CAA does not recommend cabin crew try to remove any given allergen from meal service.
- Some airlines avoid serving peanut / nut-based snacks if requested, but it can be difficult to remove allergens from meals served during the flight.
- Local “buffer zones” may be more effective than removing a particular snack from sale, since passengers often bring their own snacks with them.

BUFFER ZONES

The ventilation system on aircraft minimises the risk of any food allergens being transmitted through the cabin air. However, some foods (for example, unshelled peanuts, fish) could still pose a small risk to a minority of people allergic to those foods, if eaten *in their immediate vicinity*. Airlines must acknowledge that it is completely reasonable for a person with a food allergy to be anxious if sat next to a person eating the food they are allergic to.

Some airlines may choose to provide reassurance by implementing a local “buffer zone” – this is where passengers sat in the immediate vicinity of someone with a food allergy to peanut/tree nuts/sesame or fish/seafood are asked not to eat “snacks” (for example, nuts, prawn-flavoured snacks) containing these allergens during the flight:

- For those allergic to fish / seafood allergy, adjacent passengers will not be served cooked meals containing fish / seafood as the main ingredient, due to the risk posed by cooking vapours
- However, something like a tuna sandwich would be acceptable since this is not associated with cooking vapours
- For nuts or sesame, where the nut / seed is “incorporated” into a sauce (for example, a curry containing almond), this can still be served to adjacent passengers. This is because the allergen is in a “wet” food and therefore very unlikely to cause a reaction through touch or air-transmission.

If an airline wishes to implement a buffer zone, then an announcement should be made at the start of the flight that a passenger on board is allergic to “X”. Cabin staff should then directly approach passengers in the buffer zone and request them not to eat that allergen (in the same way that cabin crew provide a direct brief to someone sat near an emergency exit).

Further guidance on implementing buffer zones appears at the end of this leaflet.

If an airline offers buffer zones, passengers will usually need to request this in advance of the flight, to give adequate notice. This information should be available on the airline website.

This information sheet has been produced in conjunction with Allergy UK and Anaphylaxis UK.



FAQ

1. What about if someone is allergic to something which isn't a nut or fish / seafood?

Allergens such as peanut, tree nuts, sesame, fish / seafood are more likely to cause anaphylaxis (a serious allergic reaction that can be life-threatening) than other allergens. They are also “more sticky” and less easily removed from surfaces. People allergic to fish/seafood often react to the cooking vapours from these foods. For peanut, there is limited evidence that dust from deshelling can become aerosolised but only into the air immediately above the nuts.

In contrast, there is no evidence that other allergens (such as egg, milk, wheat, fruits, vegetables) can cause reactions through air transmission in the setting of an aircraft cabin. Therefore, the CAA does not recommend excluding / limiting availability of other food allergens. If a passenger is allergic to something other than peanut /tree nut / sesame or fish / seafood, then it is reasonable to ask a neighbouring passenger to avoid eating that food.

2. Why might nuts be excluded from snacks, but not in-flight meals?

The risk posed from nuts / sesame is due to the potential to produce “dust” which can occur during deshelling or when opening snacks under the pressurised conditions in the cabin. Further risk due to surface contamination can occur as these snacks tend to be eaten by hand (without cutlery). In contrast, when nuts / seeds are incorporated into a “wet” food such as a curry, there is no ingredient “dust” and cutlery is generally used to eat the meal.

For this reason, the CAA does not recommend the removal of nuts as a “wet” ingredient from in-flight meals served in the buffer zone, in contrast to snacks. Some airlines choose not to serve meals with peanut as an ingredient: this information should be made available in airline policies.

Accurate allergen information must be provided to food-allergic passengers, so they can make safe meal choices for themselves. In some countries, there may not be a legal requirement for allergen declaration – in this case, cabin crew should clearly state this to the passenger.

3. Can someone eat a sandwich containing fish/seafood if sat in a buffer zone near someone with fish allergy?

Fish present in a sandwich/roll (or even sushi) does not create a risk in the same way that cooked fish can release vapours which can cause reactions. So the CAA only recommends not serving fish/seafood-based heated meals in a “buffer zone” for fish/seafood.

Prawn crackers usually contain prawn, but not prawn-flavoured crisps. Snacks containing actual seafood should not be consumed in a buffer zone when implemented for someone who has an allergy to seafood, as the snack can generate dust. Small amounts of sushi do not seem to cause the same issues as raw fish in a shop, so are not subject to exclusion.

4. So why not ban all nuts on planes?

It is very hard to always “ban” a specific food on a plane due to operational demands, particularly allergens which are not nuts. Evidence from schools suggest that “nut bans” are not effective: there is no guarantee that everyone will comply, and the “ban” can cause a false sense of security. This is why the UK government does not recommend “nut bans” in schools, and the CAA does not recommend nut bans on aircraft.

Implementation of buffer zones

When an airline implements a buffer zone, the crew should make an announcement as follows:

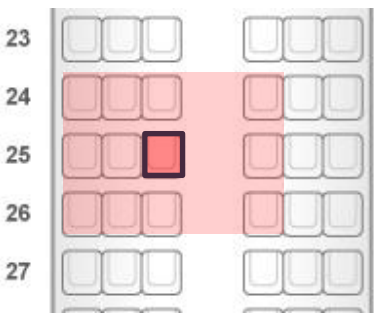
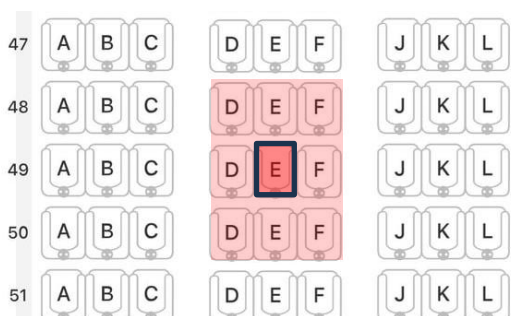
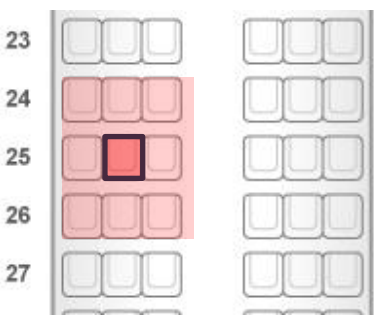
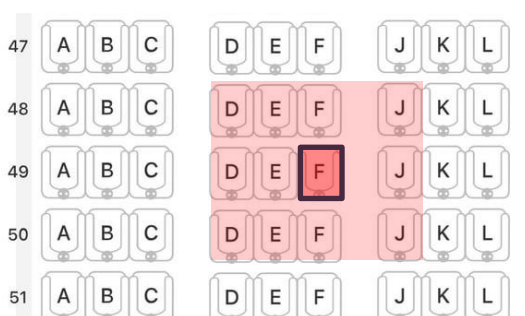
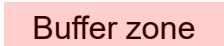
- “On our flight today, we have a customer travelling with us who has a **serious** food allergy to xxx. **If we ask you to**, please refrain from eating any foods containing xxx that you may have brought on board with you. Thank you for your cooperation and understanding.”

Cabin staff should then directly approach passengers in the buffer zone and explain to them that someone in the vicinity has a food allergy and ask them not to consume “xxx” during the flight.

- This restriction applies to snack food (or food brought with them on to the flight) and not to drinks or in-flight meals (with the exception of fish / seafood).

Airlines may choose to offer static buffer zones (where a specific seating area is used for passengers requesting a buffer zone) or a dynamic zone where the buffer zone varies depending on where the food-allergic passenger is sat.

- The “vicinity” is defined as ± 1 seat space in economy / premium economy, including the row in front and behind, as follows:

Narrow-body aircraft	Wide-body aircraft
	
	
 Passenger with food allergy	 Buffer zone

Airlines may wish to seat food-allergic individuals in a specific seat, to give maximum protection, for example, front or back row and window / middle seat.

This “zone” is based on evidence as to the potential distance allergens such as peanut can travel. In business / upper / first class cabins, the buffer zone is limited to the actual seat the food-allergic passenger is sat in, so long as there is a separation screen between that passenger and the adjacent seat. Due to increased spacing between rows, there is no need to extend the buffer zone to the front / rear of this area, or to crew areas.

Some airlines now offer coffee with steamed milk in premium classes. Passengers at risk of anaphylaxis due to a milk allergy should not be sat in the immediate vicinity of food preparation areas where a steam wand might be used.