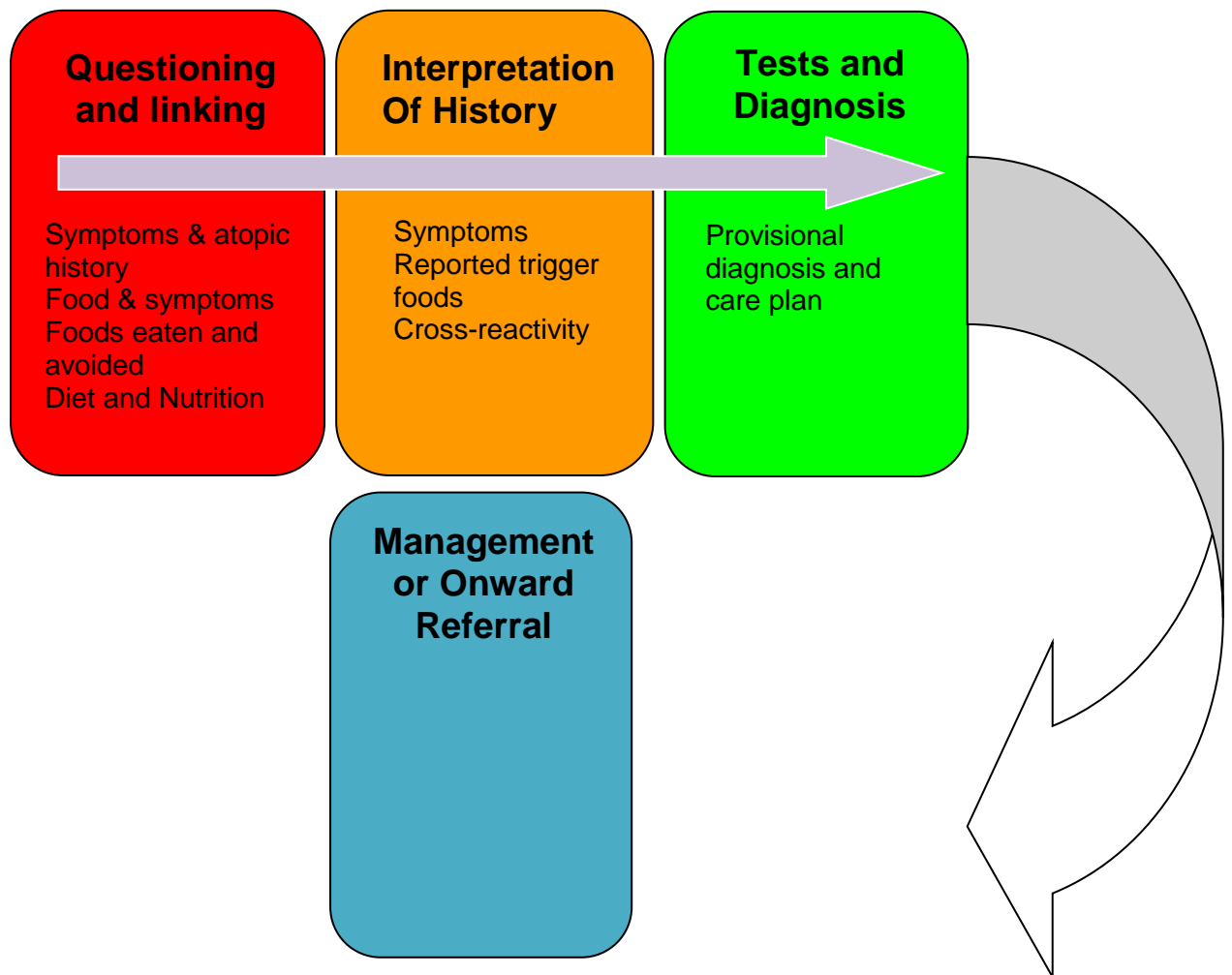


Allergy-Focused Diet History Adult version



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Introduction

The European Academy of Allergy and Clinical Immunology (EAACI) Guidelines on food allergy (FA)⁽¹⁾ suggest that the allergy-focussed history is fundamental to the establishment of the likelihood of a diagnosis, and the mechanisms and food triggers involved. In recognition of this, the Allied Health Interest group of the European Academy of Allergy and Clinical Immunology (EAACI) established a Task force (see Appendix A) to develop allergy-focussed diet history tools to facilitate a systematic standard approach to the diagnosis of adults with suspected food allergy, and support best practice and the development of pathways of care.

How to use this tool

This tool has been designed to support food allergy diagnostic pathways and determine when onward referral and/or specialist dietetic or nutritional intervention is required. A systematic approach is especially important in adults; many will be sensitised to aeroallergens, therefore testing without first taking an allergy-focussed history may confound the diagnosis rather than support it^(1,2). Careful elucidation of the symptoms and foods involved will enable a bespoke plan for further testing to be formulated. This tool is not profession-specific and can be used in its entirety by those less skilled in allergy diagnosis, or as an aide-memoir for those currently working in the allergy specialist field. It can also be utilised as an educational tool when teaching health care practitioners about food allergy.

Defining the terms

Atopy	A personal and/or familial tendency, usually in childhood or adolescence, to become sensitised and produce IgE antibodies in response to ordinary exposure to allergens, usually proteins.
Food Allergy (FA)	An adverse reaction to food mediated by an immunological mechanism, involving specific IgE (IgE mediated), cell-mediated mechanisms (non IgE mediated) or both IgE and cell mediated mechanisms (mixed IgE and non IgE mediated).
IgE-mediated FA	Immunoglobulin E mediated and is thought to manifest as a phenotypical expression of atopy, together with (or in the absence of) atopic eczema, allergic rhinitis and/or asthma.
Non-IgE mediated FA	Cell-mediated allergy and presents mainly with gastrointestinal symptoms in reaction to the ingestion of a food allergen.

Abbreviations

FA	Food Allergy
FHS	Food Hypersensitivity
PFS	Pollen-food Syndrome
IBS	Irritable bowel syndrome
FODMAP™	Fermentable, Oligo-, Di-, Mono-saccharides and Polyols

Symptom and Atopic history

*Indicates need for onward referral for specialist allergy and/or dietary assessment

1	<p>Name _____</p> <p>Age _____ Male/Female _____ Height _____ Weight _____</p>
2	<p>Presenting symptoms^(1,3,4) and pattern of appearance (Tick box and circle relevant symptoms)</p> <p><input type="checkbox"/> Skin: flushing/erythema, pruritus, urticaria*, angio-oedema*, eczema*</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p> <p><input type="checkbox"/> Oro-pharyngeal – pruritus, oedema (lips, tongue, pharynx), vocal changes (laryngeal oedema)*, throat closure*</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p> <p><input type="checkbox"/> Gastro-intestinal:, Abdominal pain, nausea, vomiting, diarrhoea, blood in the stool*, gastro-oesophageal reflux or dysphagia</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p> <p><input type="checkbox"/> Upper and lower airway: conjunctivitis, nasal itching, sneezing, rhinorrhoea with or without conjunctivitis, cough, chest tightness*, wheeze*, shortness of breath*, stridor*</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p> <p><input type="checkbox"/> *Cardiovascular – dizziness, hypotension, tachycardia, hypotonia (collapse)</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p> <p><input type="checkbox"/> *Anaphylaxis^(5,6) – multi-system involvement e.g. skin symptoms plus respiratory or cardiovascular symptom, or two or more symptoms from different symptom categories</p> <p><input type="checkbox"/> Other - Pallor, tiredness, malnutrition* or other condition: _____</p> <p>Pattern - Intermittent (on one occasion or weekly, monthly, annually) OR Continuous</p>
3	<p>At what age did the symptoms first appear? _____</p> <p>In what circumstances did symptoms first appear? (During or following a meal, location etc.) _____</p>

4	Where do the reactions normally take place: Home workplace restaurant* takeaway* other location
5	Has any treatment/medication been taken – Yes No If yes - what was it and did it help
6	Are any extrinsic factors involved ^(7,87) : Yes* No If Yes – which ones: exercise alcohol aspirin or NSAIDS fatigue/stress hormonal infection
7	Current and/or previous concomitant conditions: <input type="checkbox"/> <u>Asthma</u> ⁽⁹⁾ * Age onset..... On-going problem: : Yes No Medication Symptoms: mild/moderate/severe <input type="checkbox"/> <u>Allergic rhinitis</u> ⁽¹⁰⁾ Age onset..... On-going problem: Yes No Seasonal (if yes please circle which ones) Spring Summer Autumn OR Perennial _____ Medication..... Symptoms: mild/moderate/severe <input type="checkbox"/> <u>Food allergy in childhood</u> Age onset..... Age of resolution..... <input type="checkbox"/> <u>Eczema</u> * (depending on severity) Age at onset..... On-going problem Yes No Medication..... Symptoms: mild/moderate/severe <input type="checkbox"/> <u>Other co-morbidity or chronic medical condition</u> * (depending on severity and type)

	<p>Yes No</p> <p>If yes please describe _____</p>
8	<p>Family history of atopy: (if yes please circle which ones)</p> <p>Asthma allergic rhinitis food allergy eczema</p>
9	<p>Any reported symptoms to latex⁽¹¹⁾ (e.g. rubber gloves, condoms or blowing up balloons)</p> <p>Yes* No</p>
10	<p>Is the patient known to be sensitised to or reports previous positive tests to;</p> <p><input type="checkbox"/> Aeroallergens (if yes please circle which ones)</p> <p>Grass Trees Weeds Animal dander House Dust Mite Cockroaches Moulds</p> <p>Other _____</p> <p><input type="checkbox"/> Foods (if yes please circle which ones)</p> <p>Milk Egg Fish Shellfish Wheat Nuts Peanuts Seeds</p> <p>Other _____</p>
10	<p>Is the patient:</p> <p>Pregnant * Lactating Planning to conceive Not applicable</p>
11	<p>Is the patient highly anxious about their condition: Yes* No</p>
13	<p>Is the patient taking any regular medication Yes* No</p> <p>If Yes please list _____</p>

For interpretation of symptoms: see page 11

**Questioning
and linking**

Symptom & atopic
history
Food & symptoms
Foods eaten and
avoided
Diet and Nutrition

Linking foods to symptoms

1	Have foods been eliminated previously Yes No		
	If so was this helpful? Yes No		
2	Are symptoms related to food? Yes No Not sure		
	(If no or not sure complete Q3, if yes go to Q4 on next page)		
3	If no specific food identified, list the meals preceding the most recent reaction and two other reactions including the most severe		
	Meal	Symptoms	Time to onset of symptoms

4	Are any foods identified which provoke symptoms? – (consider botanically related ^(a) or cross-reacting ^(b) allergenic foods)				
Food	Symptom type	Speed of onset ^(a)	Amount provoking reaction ^(b)	Raw or cooked	Symptoms every time food is eaten
<p>(a) How many minutes or hours after eating did symptoms appear</p> <p>(b) How much food provokes a reaction e.g. touching lips/inhalation* a mouthful* a few bites whole meal or snack several days of consuming the food</p>					

For interpretation of Trigger foods, see page 12

For cross-reacting foods, see page 17

**Questioning
and linking**

Symptom & atopic
history
Food & symptoms
Foods eaten and
avoided
Diet and Nutrition

Foods currently being eaten and avoided

	Avoided	Eaten
Milk - cow, sheep or goats milk, cheese, yoghurt,		
Egg -hen, duck, quail		
Tree nuts - Hazelnut, almond, brazil nut, walnut, pecan, cashew, pistachio, macadamia		
Peanuts and Legumes - soy, chickpeas, peas, beans, lentils, lupin		
Seeds - sesame, sunflower, pumpkin, poppy, mustard, pine nuts		
Fresh fruit, juice or smoothies e.g. apple, kiwifruit, peach, strawberry, banana, mango, avocado		
Fresh vegetables and vegetable juices e.g. tomato, carrot, celery		
Herbs and spices e.g. coriander, parsley, chilli, cumin, paprika, mustard		
Cereals - Wheat, rice, barley, oats, corn, buckwheat (not a cereal), rye, spelt, quinoa		
Fish (white or oily) e.g. cod, salmon, trout		
Shellfish – e.g. Prawns, mussels, squid		
Meat , poultry and game		
Beverages - Cordial/squash, fizzy drinks, alcohol		
Not certain or multiple foods - Compare the daily diet to that in Appendix C to ascertain which allergens might be involved		

For interpretation of Trigger foods, see page 12

**Questioning
and linking**

Symptom & atopic
history
Food & symptoms
Foods eaten and
avoided
Diet and Nutrition

Diet and Nutrition

*Onward referral for nutritional assessment and intervention required

1	Is the patient at nutritional risk? Yes* No People at nutritional risk will have one of the following ^(12,13) : a) A Body mass index (BMI) [kg/m ²] < 18.5kg/m or less b) An unintentional weight loss > 10% in the last 3-6 months c) A BMI < 20 and an unintentional weight loss > 5% in the last 3-6 months d) A BMI > 24 or more
2	Are multiple foods being avoided Yes* No
3	Has one or more foods been excluded for 6 months or longer? Yes* No
4	Is the patient vegetarian or vegan? Yes* No
5	Any nutritional supplements taken Yes No If yes – which supplements are taken: _____
6	Any religious or cultural factors that can affect food intake Yes* No
7	Does the patient have a long standing chronic condition Yes* No If Yes, what is causing the condition?.....
8	Are deficiencies, food intolerances or accuracy of reported avoidance suspected? Yes** No **Requires 24-hour diet history

Interpretation of Symptoms

SYMPTOM TYPE SEVERITY & SPEED OF ONSET		Likely IgE-mediated FA (132)	Likely non-IgE- mediated FA	Other adverse food reaction or Differential Diagnosis
S Y M P T O M T Y P E	Skin	Pruritus -extremities and groin Urticarial rash of 6-12 hours duration Acute rapid-onset urticarial/angio-oedema after eating (Angio-oedema several hours after eating can occur in exercise-related FA ⁽⁷⁾ or red meat allergy due to tick bites ⁽¹⁴⁾)	Atopic dermatitis	Non-specific pruritus Urticarial rash of more than 48 hours duration Angio-oedema many hours after eating
	Gastro-intestinal	Oro-pharyngeal pruritus, oedema, tingling, paraesthesia and dysesthesia Severe, acute intermittent vomiting and/or diarrhoea within 30 minutes of eating	Reproducible vomiting and/or diarrhoea to a specific food Dysphagia Upper GI pain (abdominal pain)	Chronic constipation or diarrhoea Bloating Acute lower GI pain
	Respiratory	Rhinitis, conjunctivitis, dyspnoea, wheeze, stridor, Difficulty in breathing,		Increase in mucous secretions Wheeze
	Circulatory	Tachycardia or Hypotension		Hypertension
SPEED OF ONSET		IMMEDIATE Reactions occur up to 2 hours after eating	INTERMEDIATE Reactions occur more than 2 hours after eating	DELAYED Reactions occur more than 24 hours after eating
SEVERITY		Anaphylaxis, difficulty in breathing		
REPRODUCIBILITY		Symptoms every time same food eaten		No discernible pattern

**Interpretation
of History**

Symptoms
Reported trigger
foods
Cross-reactivity

Interpretation of Reported Trigger Foods

Reported Food	Likely IgE-mediated FHS	Likely non-allergic FHS (Differential Diagnosis)
Milk	All forms of milk (milk, cheese, yoghurt, butter, cream) (rare in adults ⁽¹⁵⁾)	Milk and soft cheese (Lactose intolerance ⁽¹⁶⁾) Milk and hard cheese (IBS ^(17,18)) Blue, strong and fermented cheese (Vaso active amines ^{**} (19,20))
Egg	Egg - (rare in adults) ⁽²¹⁾	Egg
Tree nuts and legumes NB Apply PFS algorithm ⁽²²⁾ (page 19)	Tree nuts, peanuts, soy, other legumes (lupin, lentils, chickpeas), seeds (sesame, sunflower, pumpkin, mustard, pine nuts, poppy)	Soy
Fresh fruit NB Apply PFS algorithm ⁽²²⁾ (page 19)	Any fresh fruit especially apples, strawberries, plums, cherries, peaches, pears, kiwi Candied peel Fresh fruit juice	Dried apricots, sultanas (Sulphite hypersensitivity ^(23,24)) Unspecified acidic fruits (IBS ⁽¹⁷⁾) Fresh fruits – especially apples and pears (IBS ⁽¹⁷⁾ – FODMAP® ⁽²⁵⁾ foods)
Fresh vegetables NB Apply PFS algorithm ⁽²²⁾ (page 19)	Any fresh vegetable, especially carrots, peppers, celery (raw. cooked and spice), fresh tomatoes, sun dried tomatoes, lettuce, avocado, new potatoes in skins or jacket potatoes Peeling potatoes (itchy hands) Fresh herbs, especially coriander and parsley, mustard, chilli, paprika, celery salt, curry powder	Dried onions, frozen potatoes (sulphite hypersensitivity ^(23,24)) Leeks, onions, cauliflower, mushrooms, cucumber (IBS FODMAP® foods ^(17,24)) Tomato puree – histamines (Vaso active amines ^{**} (19,20)) Dried herbs, spices and black pepper – (salicylates ^{**} (26-29))
Cereals	Rice, buckwheat Barley – e.g. beer, bread, malt Corn – e.g. polenta, cornflakes, tortilla	Wheat or gluten (IBS – FODMAP® foods ^(18,25))
Seafood	Finned Fish (cod, herring, mackerel, sea bass, plaice etc.) Crustaceans (prawns, crab, lobster, Gamba, langoustine) Molluscs (mussels, clams, oysters)	Tuna, mackerel, swordfish, marlin, other brown fish or stale fish - Scombroid poisoning ⁽²²⁾ Poisoning from seafood toxins Frozen prawns - (sulphites ^(23,24))
Meat	Beef, lamb, pork – delayed onset	Sausages – (sulphites ^(23,24))

	severe anaphylaxis Chicken	Pepperoni sausage and other fermented sausage – (Vaso active amines ^{**} (19,20))
Meat substitutes	Mycoprotein (egg) Vegetarian sausages, burgers or patties (soy, other legumes, nuts)	
Beverages	Any wine ^(30,31) Bitter beer ⁽³³⁻³⁵⁾ Wheat beer ⁽³⁵⁾	Lime cordial, bottled lemon/lime juice, cider, white wine, some lagers (sulphites ^(23,24)) red wine (Vaso active amines ^{**} (19,20))
Composite meals or snacks	Meals containing nuts, legumes, seeds and seafood (UK - Indian curry, Thai, Malaysian, Chinese), Hummus, Pesto (might also be in pizza or pasta dishes) Other composite foods containing legumes, mustard, celery or natural food colourings ⁽³⁶⁻⁴⁵⁾	Pizza, Pasta, Mexican, Italian, burgers, fried chicken, fish and chips, Soup gravy and sauces

****evidence base is limited and lack of agreement about relevance**

Interpretation of History

Symptoms
Reported trigger
foods
Cross-reactivity

Linking foods eaten to specific allergens - Daily food pattern and possible allergens (adapted from Food Hypersensitivity, Skypala and Venter⁽⁴⁶⁾)*

	Milk	Egg	Wheat	Soy Legumes	Peanut/ tree nut	Other allergens
Breakfast						
Breakfast cereal	✓		✓		✓	Barley
Bread, Muffin, Pastry or croissant	✓	✓	✓	✓	✓	Barley
Butter/Margarine	✓					
Snack meal						
Soup			✓	✓		Celery, mustard
Sandwich or roll	✓	✓	✓	✓	✓	Seeds
Salad dressing	✓	✓	✓	✓		
Vinegar/ketchup			✓			Barley
Hummus				✓	✓	Sesame
Pesto	✓				✓	
Crisps	✓					
Biscuits/cake	✓	✓	✓	✓	✓	
Main meal						
Fish in batter		✓	✓			
Sausages		✓	✓	✓		Sulphites
Thai, Malaysian or Chinese Food		✓	✓	✓	✓	Sesame, seafood, buckwheat,
Curry	✓		✓	✓	✓	Coriander cumin, turmeric, fenugreek, celery, mustard
Pizza	✓	✓	✓	✓		Celery, mustard
Fruit tart/fritters			✓	✓		Lupin
Yoghurt/ice cream	✓	✓			✓	
Other						
Gluten-free						Lupin
Alcoholic drinks			✓			Grapes, barley, sulphites

*This table should be adapted for each country

Interpretation of History

Symptoms
Reported trigger foods
Cross-reactivity

Linking foods eaten to specific allergens - Foods likely to contain milk, egg, cereals, peanuts or tree nuts

	Milk	Egg	Wheat & Barley	Peanuts & Tree nuts
Bread and breakfast cereals	Breakfast cereals, some breads	French toast	Bread (sourdough, nan, soda), breakfast cereals, pancakes, muffins, crackers	Breakfast cereals, Peshawari nan bread, almond croissants
Meat, fish, egg, cheese, vegetarian dishes	Packet sliced cold meats, lasagne, sausages, foods in batter, sandwiches, quiche	Sausages, fish fingers, foods in batter/breadcrumbs	Sausages, foods in batter/breadcrumbs, pies, meat puddings, sandwiches	
Pasta, rice, potato vegetables,	Pasta in cheese or cream sauce, baked beans, soups,	Yorkshire pudding, egg fried rice, egg pasta, mycoprotein, bouillon	Potato cakes, couscous, pasta, spelt, baked beans	Vegetarian dishes
Desserts, Cakes and biscuits	Yoghurt, milk pudding, cheesecake, pancakes, custard, ice cream, mousse, Cakes, biscuits, muffins	Pancakes, meringue, soufflé, sponge, trifle, crème brule, egg custard, pastry cream, mousse, ice cream, cakes, pastries brushed with raw egg, marzipan, royal icing,	Semolina, cheesecake, tarts, sponge, crumble, pancakes, biscuits, cakes, pastries,	Pastries, nut cookies, Ice cream toppings, Bakewell tart, brownies, fruit cake, nut cookies, marzipan, hazelnut paste, halva, baklava, macaroons
Restaurant and take away food	Pizza, curry containing cream (e.g. korma)			Curry especially Korma sauce, Thai and Chinese food, Satay sauce, Szechwan sauce
Sweets and snacks	Toffee, fudge. Caramel, chocolate, crisps, flavoured snacks	Filled chocolates, cream/fondant fillings		Peanut/nut brittle, Marron glace, sugared almonds, praline, chocolates, nougat
Condiments and spreads	Salad dressing, butter, margarine	Salad dressing, mayonnaise, salad cream, Hollandaise sauce, lemon curd	Sauces, gravy	Peanut butter, Chocolate hazelnut spread, cold pressed walnut, almond and hazelnut oil peanut/groundnut oil
Drinks	Milk, Pineapple & coconut juice, latte, coffee and tea whiteners	Advocat	Beer, malt drinks	

***This table should be adapted for each country**

**Interpretation
of History**

Symptoms
Reported trigger
foods
Cross-reactivity

Linking foods eaten to specific allergens - Foods likely to contain soy, lupin, sesame, mustard and sulphites

	Soy & Lupin	Sesame	Mustard	Celery	Sulphites
Bread, crackers, breakfast cereals	Bread, crackers, gluten-free products	Bread sticks, bagels, crackers, crisp bread, rice cakes			
Meat, fish, egg, cheese, vegetarian dishes	Tofu, tempeh, sausages, beef burgers baby food, battered food	Burger buns, falafel, samosa	Cheese sauce, Welsh Rarebit, ready meals, stews, casseroles, hot dogs	Ready meals, casseroles, stews	Dried salted fish, sausages, beef burgers, frozen prawns/shrimps
Pasta, rice, potato vegetables,	Edamame beans, noodles	Noodles	Pickled vegetables	Vegetable puree	Dried onions (e.g. on hot dogs), frozen and vacuum-packed potatoes,
Desserts, cakes and biscuits	Biscuits, pastries	Baklava, halva, sesame snaps, pastries,			
Restaurant and take away food	Pizza	Chinese and Thai food	Curry, Pizza, Mexican	Curry, pizza	
Sweets and snacks	Cheese dips	Hummus,			Dried fruits especially apricots, sultanas, prunes, figs, dates, bananas, Maraschino cherries
Condiments and spreads	Soy sauce, stock cubes, sauces, mayonnaise, salad dressing	Salad dressing, soups, sauces, dips	Salad dressing, barbeque sauce, soups, ketchup, Mayonnaise, piccalilli, chutney, curry powder	Curry powder, spice mixes, rubs, sauces, marinades, soups, salad dressing, Yeast extract, gravy, stock cubes, ketchup, Barbeque sauce, chutneys, pickles	Vinegar, horseradish sauce
Drinks	Soy milk, miso soup, body-building protein shakes			Vegetable juice, tomato juice, Bloody Mary	Cider, wine, lager, lime cordial, preserved lemon and lime juice, lemon cordial and other light coloured concentrated fruit drinks, grape juice, soft drinks

**Interpretation
of History**

Symptoms
Reported trigger
foods
Cross-reactivity

Linking cross-reactivity between foods and aeroallergens^(22,47-58)

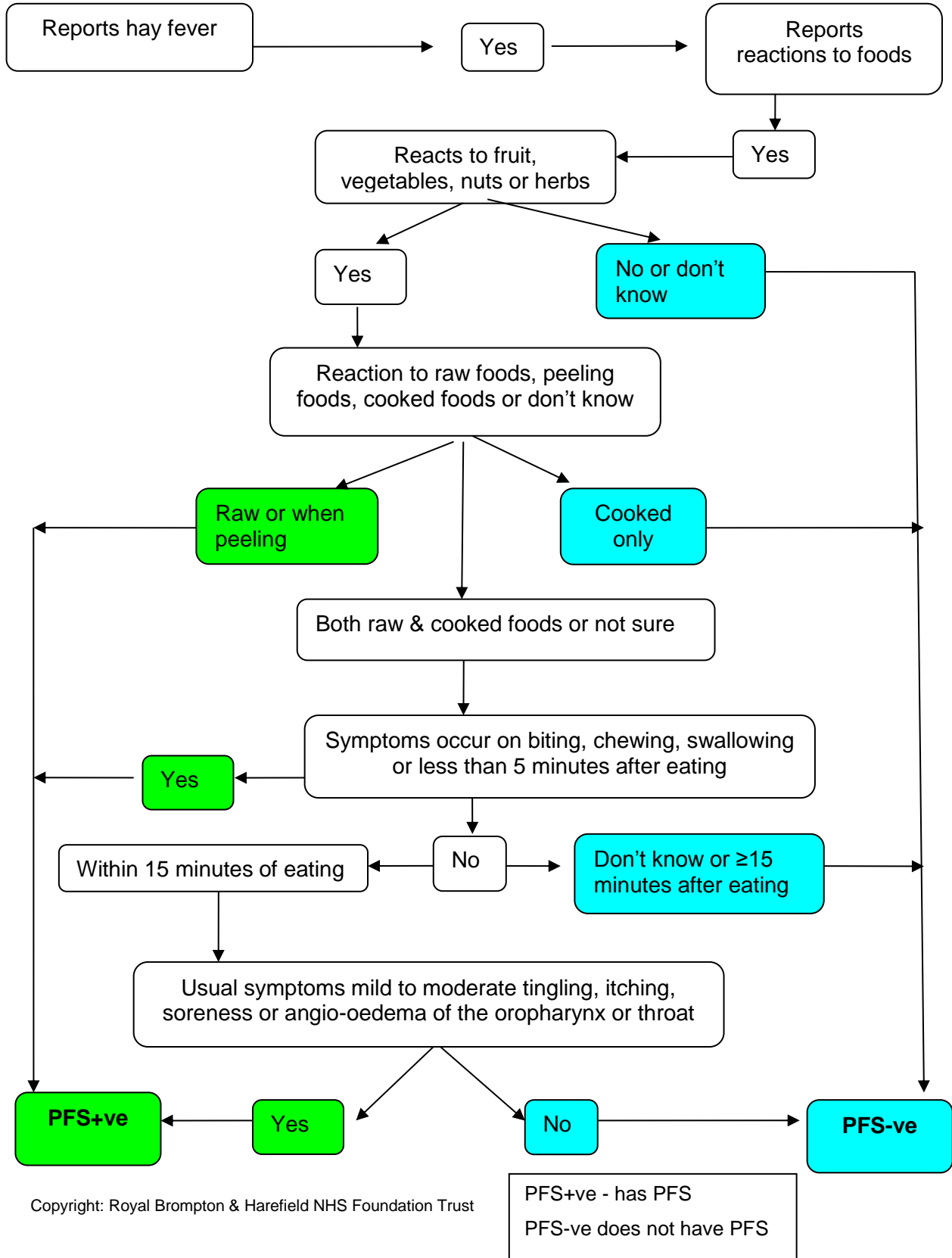
Primary sensitisation or allergy to:	Potential co-sensitisation or cross-reactions to:
Pollens	
Silver Birch	apple, pear, cherry, peach, nectarine, apricot, plum, damson, greengage, strawberry, kiwifruit, hazelnut, walnut,, almond, Brazil nut, celery, carrot, potato, soy, fig, bean sprouts, mange tout
Plane tree	hazelnut, peach, apple, melon, kiwi, peanuts, maize, chickpea, lettuce, green beans
Grass	melon, watermelon, orange, tomato, aubergine, sweet pepper, chilli or cayenne pepper, potato, peanut, Swiss chard
Mugwort	celery, celeriac, carrot, parsnip, dill, parsley, coriander, cumin, fennel, aniseed, caraway, angelica, chervil, sunflower seed, honey
Ragweed	watermelon and other melon, banana, courgette, cucumber, courgette, marrow, squash, pumpkin,
Latex	Avocado pear, chestnut, peach, banana, passion fruit, kiwi fruit, papaya, mango, tomato, pepper, potato, celery
Foods	
Peanut	Walnut, pistachio nut, cashew nut, Hazelnut, almond, Brazil nut, sesame seed, other legumes (see below*)
Pistachio or cashew nut	Pistachio or cashew nut, peanut, hazelnut
Walnut or pecan nut	Walnut or pecan nut, hazelnut, cashew nut, peanut, sesame
Hazelnut	Cashew, Brazil nut, pistachio, almond, peanut, walnut
Sesame	Sunflower seeds, peanuts, walnuts, hazelnut, Brazil nut, almonds
Peaches	Apples, hazelnuts, peanuts, walnuts, orange, cabbage, lettuce, mustard, corn, barley

*Legumes	Peanuts, Soy, Pigeon Pea, Goa Bean, Runner Bean, French Bean, Haricot Bean, Butter Bean, Lima Bean, Chick Pea, Mung Bean, Fava Bean, Peas, Lentils, Tamarind, Guar Gum, Fenugreek, Liquorice, Gum Arabic, Tragacanth
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Tests and Diagnosis

Test algorithm
Allergy and
nutritional care
plan

©Pollen-Food Syndrome (PFS) (Oral Allergy Syndrome) Algorithm⁽²²⁾



**Tests and
Diagnosis**

Test algorithm
Allergy and
nutritional care
plan

Allergy and Nutritional Care Plan

PROVISIONAL DIAGNOSIS:	IgE-mediated FA Other:.....	Non-IgE-mediated FA (Circle as applicable)
PROVOKING FOODS		
OTHER CROSS- REACTING FOODS		
DIAGNOSTIC TESTS ⁽¹⁾		
MANAGEMENT PLAN		
DIETARY ADVICE		

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Appendices

Appendix A. Task Force Membership

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