

Paediatric Allergy Masterclass:

Common Cases And How To Manage Them

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16th September 2023

Overview

What is
allergy?

Milk
allergy

Egg
allergy

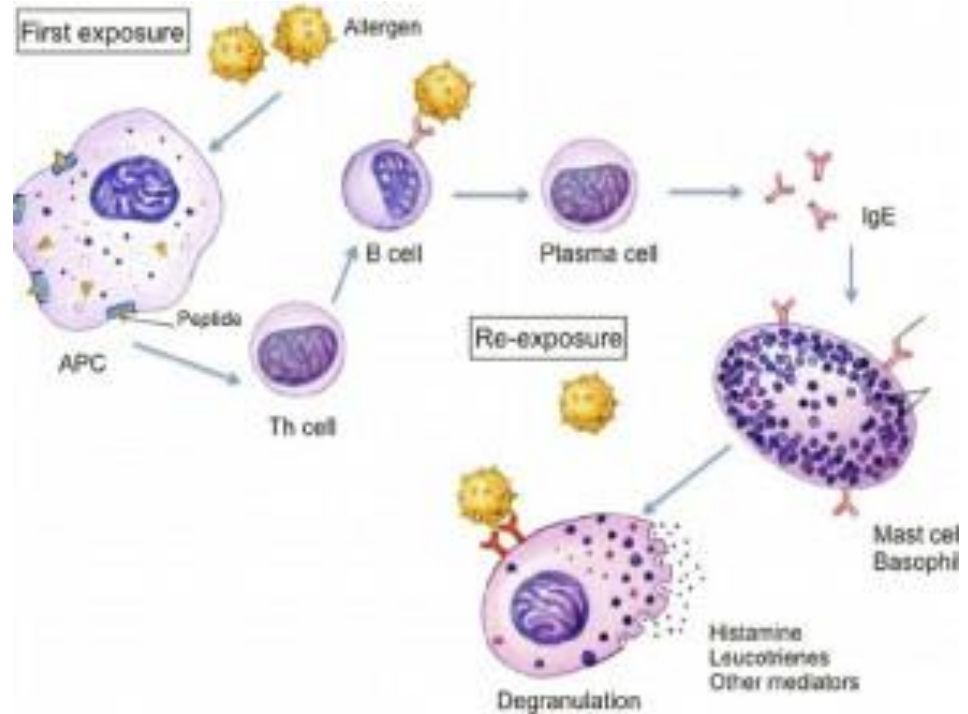
Peanut
allergy

Key take
aways

What Is An Allergy?

- Type 1 hypersensitivity reaction
- Immediate IgE mediated reaction
- Hypersensitivity to an ingested, injected or inhaled antigen in response to exposure

- Typical symptoms
- Immediate (up to 2 hours)
- Reproducible



Mild to moderate symptoms:



Swelling of the eyes,
face and lips



Runny or
congested nose



Raised itchy rash
(hives), eczema flare,
skin flushing



Itchy mouth



Stomach cramps,
nausea, vomiting,
diarrhoea

Severe symptoms (anaphylaxis):



Swollen tongue,
hoarse voice or cry,
difficulty talking



Chest tightness



Breathing difficulties,
persistent cough,
wheeze



Low blood pressure,
feeling faint, collapse



Pale and floppy (babies
and small children)

Milk Allergy

Case 1

- **4 month old girl**
- Breastfed from birth, 1-2 “top-ups” in hospital then exclusive breastfeeding
- Immediate onset
 - Lip swelling
 - Diffuse rash, hives
 - Large vomit
- **What do you do?**



Ige Mediated Milk Allergy - Management

Remove milk protein from diet

Extensively hydrolysed formula (eHF) vs Amino acid formula

No indication for Mum to remove dairy from her diet

Community Dietician

Adrenaline autoinjectors (AAIs) usually not indicated

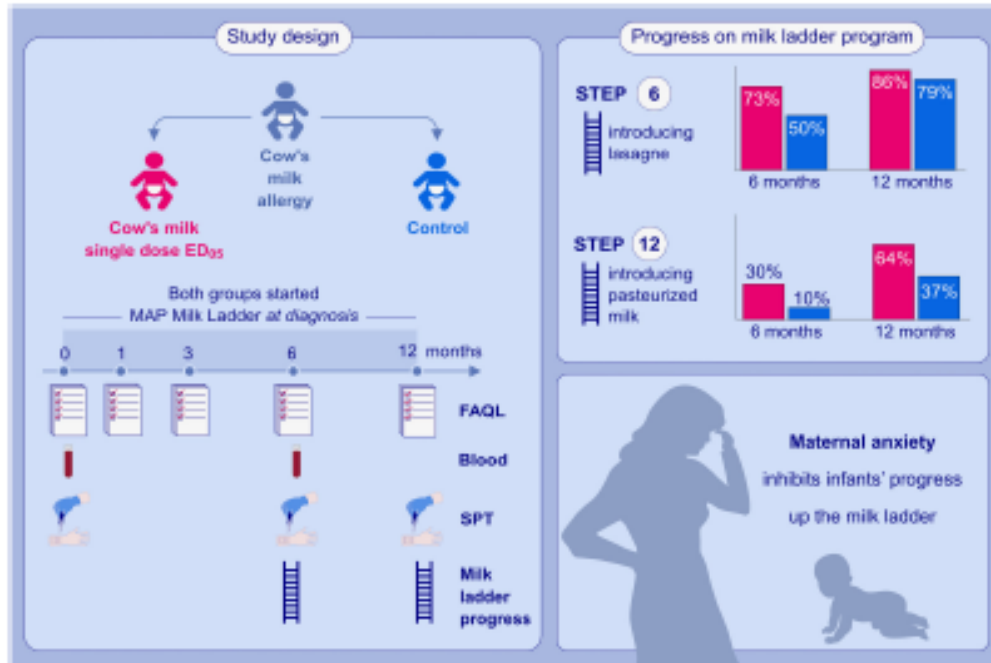
THE MILK LADDER



Milk Ladder Aids Resolution Of Ige-mediated Milk Allergy

Single low-dose exposure to cow's milk at diagnosis accelerates cow's milk allergic infants' progress on a milk ladder programme

Yvonne M. d'Art^{1,2} | Lisa Forristal³ | Aideen M. Byrne^{4,5} | John Fitzsimons^{4,6} | Ronald van Ree⁷ | Audrey DunnGalvin³ | Jonathan O'Brien Hourihane^{1,2,4,6}





Overall good



Caution in

Persistent milk allergy
Intolerance of baked milk

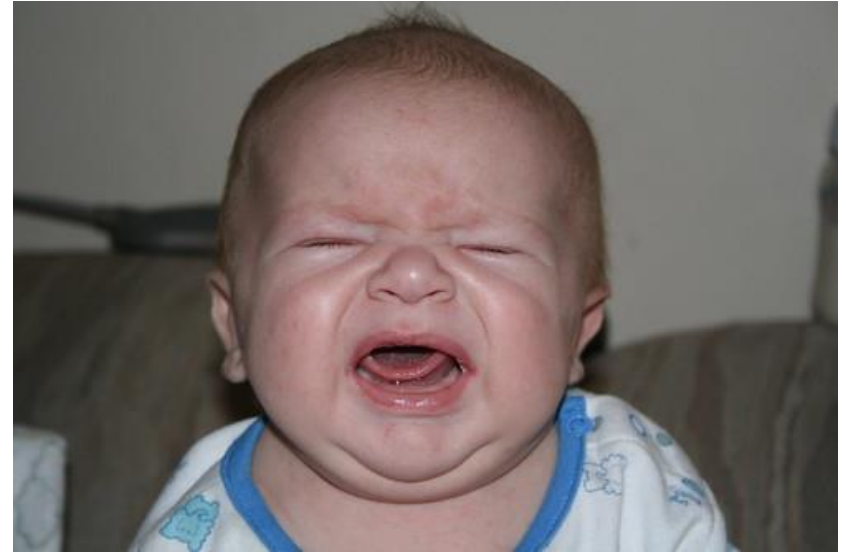


Tertiary allergy referral

Consider hospital challenge,
adrenaline autoinjectors

Case 2

- **3 month old boy**
 - Formula fed from birth
 - Colicky, fussy, cranky from 4 weeks
 - Hard to get wind up
 - Loose mucousy stools with some streaks of blood
 - Intermittent non projectile vomits
 - **Poor weight gain**
-
- **What next?**



Non-IgE Mediated Milk Allergy

Diagnosis = trial of extensively hydrolysed or amino acid formula x 4 weeks followed by reintroduction

Consider alternative diagnoses

Breastfeeding

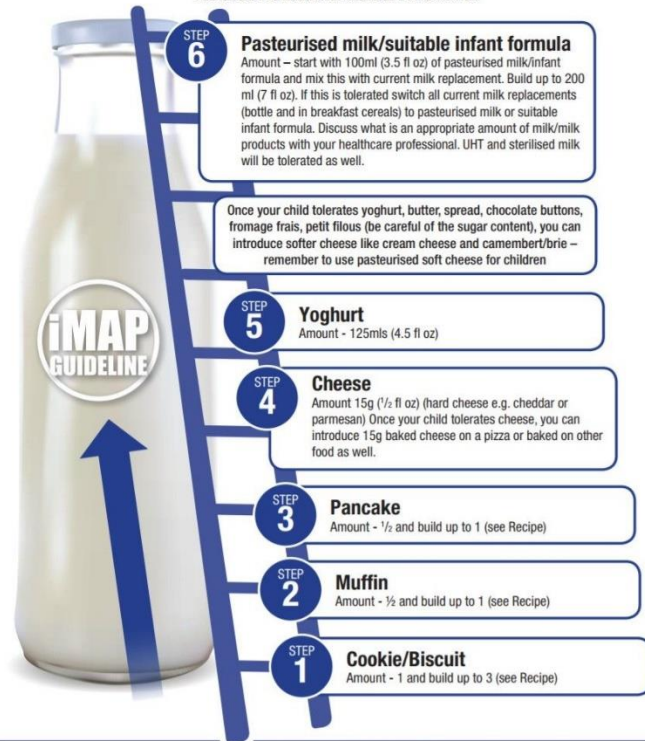
- Consider exclusion from Mum's diet
- Dietician

Milk ladder from weaning

General Paediatrics referral not allergy

THE iMAP MILK LADDER

To be used only in children with Mild to Moderate Non-IgE Cow's Milk Allergy
Under the supervision of a healthcare professional
PLEASE SEE THE ACCOMPANYING RECIPE INFORMATION



AT EACH OF THE FOLLOWING STEPS

Cookie, muffin, pancake, cheese and yoghurt

It may be advisable in some cases to start with a ¼ or a ½ of that particular food and then over a few days to gradually build up to a whole portion - Please ask your healthcare professional for guidance on this

THE LOWER STEPS ARE DESIGNED TO BE USED WITH HOME MADE RECIPES. THIS IS TO ENSURE THAT EACH STEP HAS THE APPROPRIATE MILK INTAKE. THE RECIPES WILL BE PROVIDED BY YOUR HEALTHCARE PROFESSIONAL
Should you wish to consider locally available store-bought alternatives - seek the advice of your healthcare professional Re: availability



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Egg Allergy

Case 3

- **7 month old girl**
- Eczema from 3 months
 - Severity?
- Scrambled egg for first time
- Within 20 mins
 - Hives on face, neck
 - Vomit x1
- Seen in ED
 - Oral antihistamine only
- **What next?**



Egg Allergy - Management



Treat eczema!



Avoid lightly cooked egg



Allergy referral to confirm diagnosis (SPT)



Can start egg ladder while waiting



Cautious if

Anaphylaxis as sentinel reaction

Reaction to baked egg (rare)



Increased risk of peanut allergy (LEAP Study)

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Randomized Trial of Peanut Consumption in Infants at Risk for Peanut Allergy

George Du Toit, M.B., B.Ch., Graham Roberts, D.M., Peter H. Sayre, M.D., Ph.D., Henry T. Bahnson, M.P.H., Suzana Radulovic, M.D., Alexandra F. Santos, M.D., Helen A. Brough, M.B., B.S., Deborah Phippard, Ph.D., Monica Basting, M.A., Mary Feeney, M.Sc., R.D., Victor Turcanu, M.D., Ph.D., Michelle L. Sever, M.S.P.H., Ph.D., Margarita Gomez Lorenzo, M.D., Marshall Plaut, M.D., and Gideon Lack, M.B., B.Ch., for the LEAP Study Team*

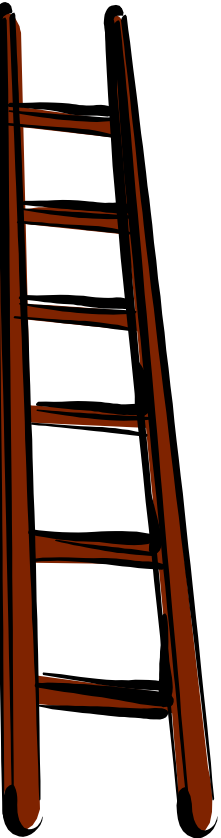
- Conclusion:
- Early introduction of peanut significantly decreased the frequency of development of peanut allergy in children at high risk
 - Severe eczema
 - Egg allergy

Egg ladder



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Cracked eggshell
Utensils with raw cake mixture or raw egg

Processed meat/burger/sausage ↑
Teacakes™ Milky Way™ Mars™ Snickers™ ↑
Crème Egg™ Chewits™ ↑
Hollandaise, Horseradish & Tartar sauces ↑
Royal™ icing ↑
Sorbet & Mousse ↑
Mayonnaise/salad cream ↑
Marshmallow-with egg (check label) ↑
Meringue/fresh ice-cream ↑
Crème caramel & Crème Brulé ↑
Scrambled egg ↑

STEP 3 ALMOST RAW

Omelette ↑
French Toast ↑
Quiche ↑
Yorkshire pudding-with egg (check label) ↑
Fried/hardboiled egg ↑
Cooked batter/tempura/breadcrumbs ↑
Fresh egg pasta & fresh egg noodle ↑

STEP 2 LIGHTLY COOKED

Pancake ↑
Dried egg pasta ↑
Waffle biscuit ↑
Boudoir™ & Lady's finger™ biscuits ↑
Baked sponge/muffin/cake/biscuit ↑

STEP 1 WELL COOKED

Prognosis

Excellent

Egg ladder is treatment of choice

Tertiary allergy referral if anaphylaxis at diagnosis, poor progression on ladder

Community dietician

No contraindication to routine childhood vaccines

A Note On Eczema

Food allergy does not cause eczema

Eczema predates and predisposes to food allergy

Eczema should be treated with topical emollients and steroids

Consider allergy testing if eczema severe prior to weaning

- Concurrent referral to Dermatology

Peanut Allergy

Case 4

- **8 year old boy**
- Eczema as an infant
- Current asthma and seasonal allergic rhinitis (hay fever)
- Doesn't usually eat nuts regularly
- Ate homemade granola bar with peanut and sesame
- Immediate onset
 - Lip swelling
 - Itchy throat++
 - Nausea, abdominal pain
 - Wheeze



What to do?



This is anaphylaxis!



IM adrenaline stat 300mcg anterolateral thigh



ED observation x at least 6 hours

Then

Counsel re: avoidance of peanut and sesame seeds

Do not need to avoid other nuts if had been regularly eating

No indication to avoid other seeds

Prescribe adrenaline autoinjectors and provide training (ifan.ie)

- Need to carry 2 pens at all times

Photo

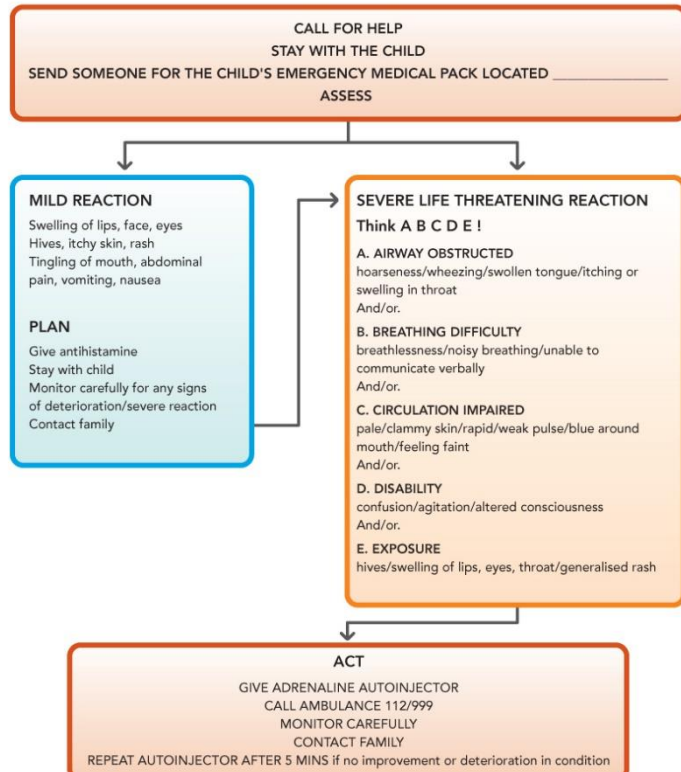
NAME:
Date of birth:
Family contact:
Allergic to:



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Because allergy matters visit www.ifan.ie

Managing an Allergic Reaction



Allergy Action Plan

If in doubt: give adrenaline



20-25% will develop tolerance



Strict avoidance of culprit nut required



Peanut
immunotherapy

Increases threshold for reaction
Still need to carry adrenaline autoinjectors
Availability in Ireland...pending

Other Considerations

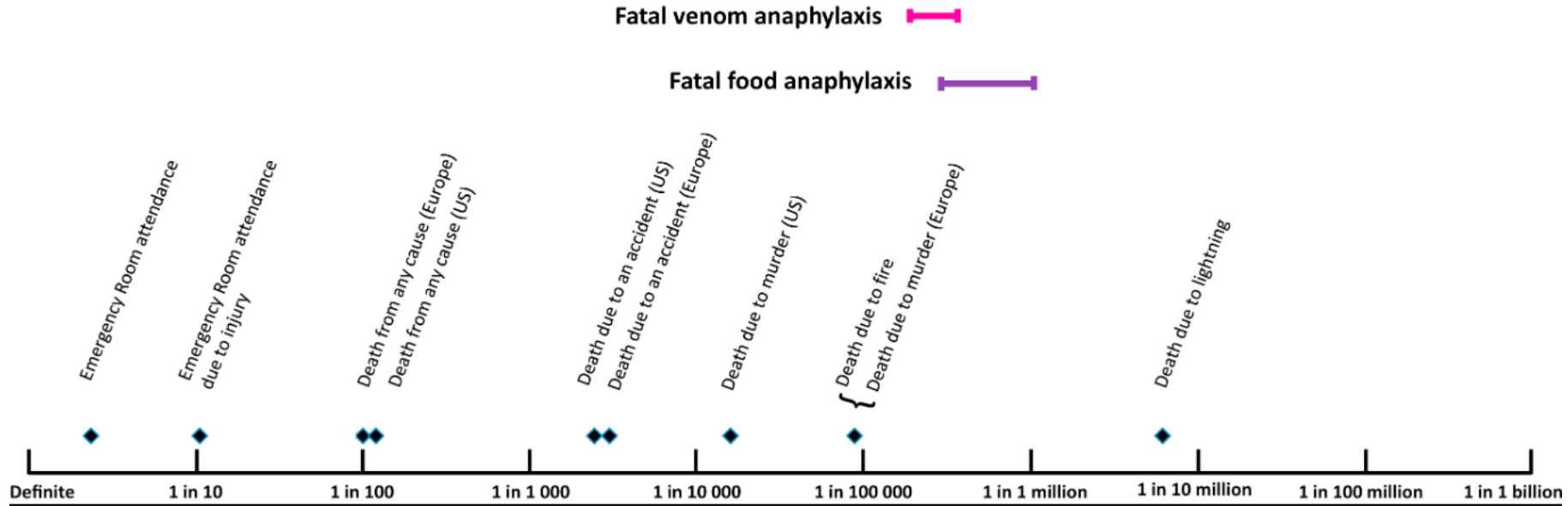
Manage concurrent asthma

- Biggest risk factor for anaphylaxis death

History of previous anaphylaxis increases risk

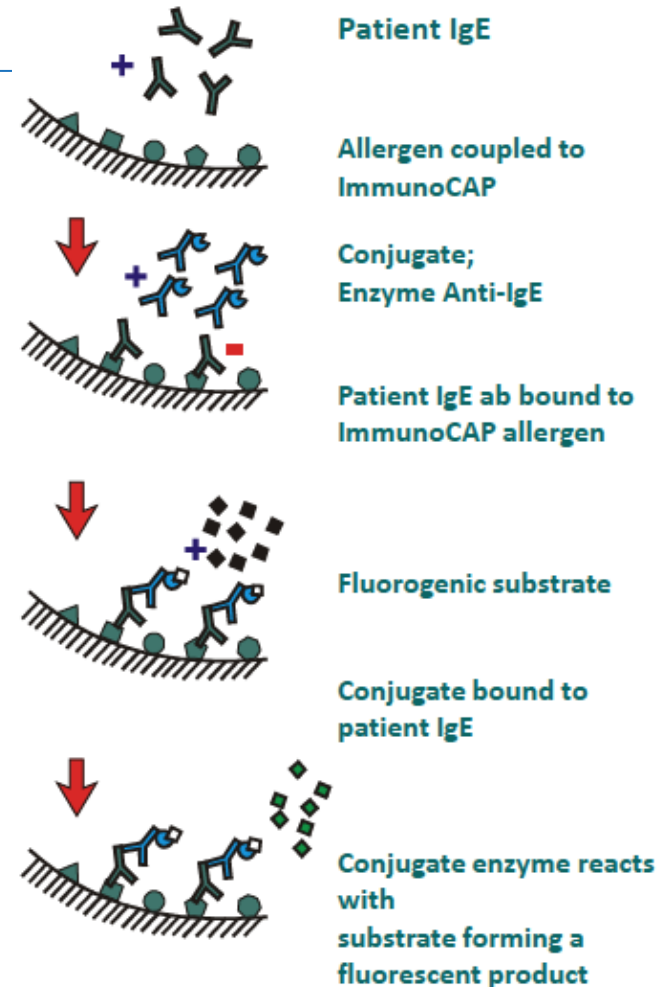
Fatal anaphylaxis is rare

Annual incidence of fatal anaphylaxis in food or venom allergic individuals




Investigations in Primary care

- Bloods
 - Total IgE (not useful)
 - Specific IgE (not RAST) to culprit food
 - Eg. Egg white, cow's milk, peanut
- Negative <0.35 kU/L
 - But history trumps blood test result
- Positive result
 - True allergy vs sensitisation?



A Note On Allergy Vs. Sensitisation

Sensitisation = the presence of a specific IgE that is capable of binding an antigen in an individual clinically not allergic to that particular antigen



Do not recommend broad non-specific testing or testing for foods currently tolerated



No allergic history = no indication to test

Key Take Aways



History is everything

Allergy focused



IgE mediated allergy

Immediate to 2 hours
Typical symptoms
Reproducible



Eczema leads to food allergy

Treat eczema first



Get allergens in early and keep in

Primary prevention of food allergy
Prevention of peanut allergy in high risk children

Thank you