

Adult Food Allergy Treatment

OIT, SLIT, Biologics

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Food Allergy Treatment in Adults

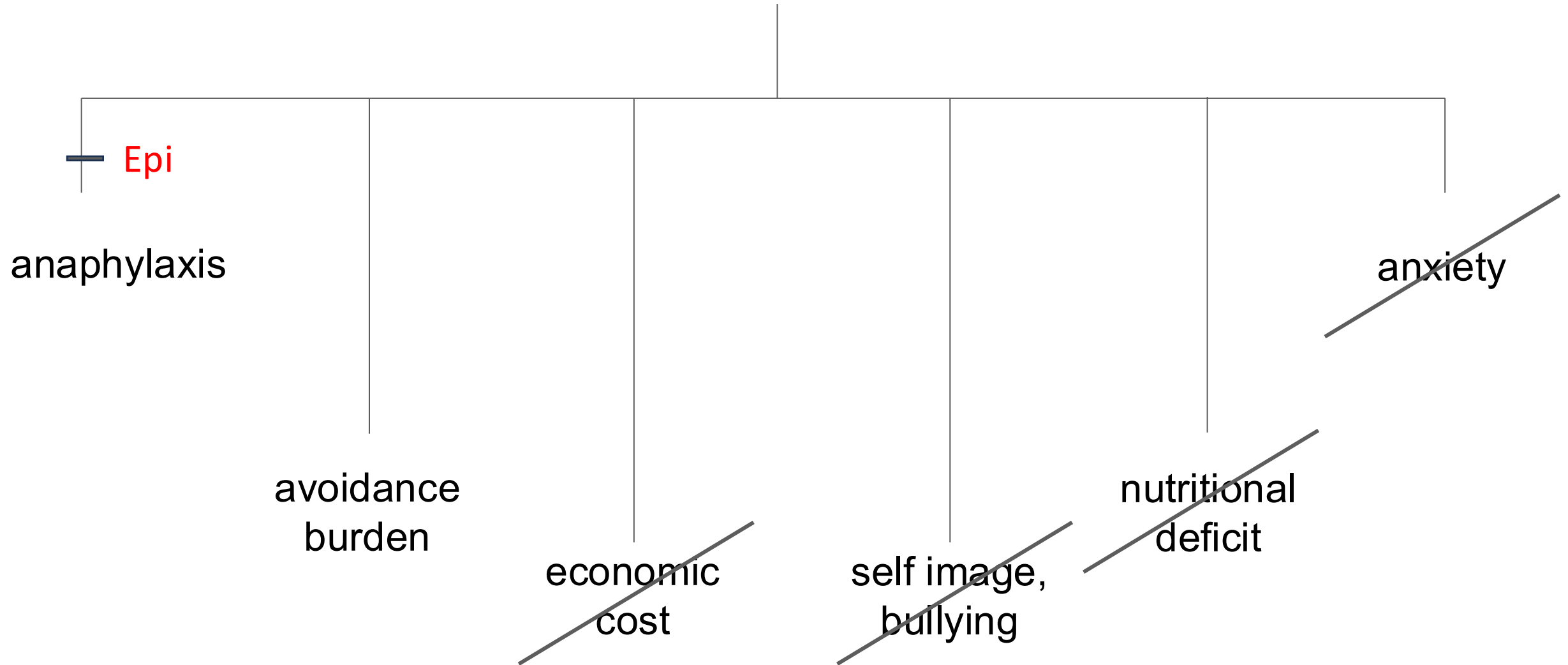
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Food Allergy Impact & Intervention



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ORIGINAL ARTICLE

Food Allergy and Gastrointestinal Disease



WILEY

Efficacy and safety of food allergy oral immunotherapy in adults

Na'ama Epstein-Rigbi^{1,2}  | Michael B. Levy¹ | Liat Nachshon^{1,3}  | Yael Koren¹ |
Yitzhak Katz² | Michael R. Goldberg^{1,2}  | Arnon Elizur^{1,2} 

Adult OIT Buildup Report



- 96 pts >17 yo, various foods, median age 22
- 20% dropped, 19% held at low maintenance, 61% reached high dose
- Milk failure rate 28%, other foods same as kids
- 49% epi use in build-up

> [Allergy](#). 2025 Apr 23. doi: 10.1111/all.16493. Online ahead of print.

Oral Immunotherapy in Peanut-Allergic Adults Using Real-World Materials

Hannah Hunter¹, Kok Loong Ue¹, Victoria Cornelius², Ching Ching Yung¹, Iason Thomas¹,
Olympia Tsilochristou¹, Janice Layhadi^{3 4}, Leonard Q C Siew¹, Carina Venter⁵,
Mohamed H Shamji^{3 4}, Stephen J Till^{1 6 7}

GUPI - Grown Up Peanut Immunotherapy
N = 21

Adult Peanut OIT

Buildup + 1 month



- 21 adults (median 24 yo), OFC $\leq$ 300 mg peanut protein (PP), median 30 mg
- 67% reached maintenance of 1 gm PP
- 4 weeks later, OFC, median 3 gm PP
- Epi used in 4 pts (19%)

> J Allergy Clin Immunol Pract. 2024 Nov;12(11):2947-2954. doi: 10.1016/j.jaip.2024.08.056.
Epub 2024 Sep 16.

Omalizumab Implementation in Practice: Lessons Learned From the OUtMATCH Study

Brian P Vickery¹, J Andrew Bird², R Sharon Chinthrajah³, Stacie M Jones⁴, Corinne A Keet⁵,
Edwin H Kim⁵, Donald Y M Leung⁶, Wayne G Shreffler⁷, Scott H Sicherer⁸,
Sayantani Sindher³, Jonathan Spergel⁹, Robert A Wood¹⁰

More questions than answers!

Controlled Clinical Trial > J Allergy Clin Immunol. 2012 Nov;130(5):1123-1129.e2.

doi: 10.1016/j.jaci.2012.05.039. Epub 2012 Jul 15.

Kinetics of mast cell, basophil, and oral food challenge responses in omalizumab-treated adults with peanut allergy

Jessica H Savage¹, Jean-Paul Courneya, Patricia M Sterba, Donald W Macglashan, Sarbjit S Saini, Robert A Wood

N = 14

► BMJ Open. 2024 Feb 7;14(2):e075253. doi: [10.1136/bmjopen-2023-075253](https://doi.org/10.1136/bmjopen-2023-075253) 

Efficacy of biological agents combined with oral immunotherapy (OIT) for food allergy: a protocol for a systematic review and meta-analysis

[Aiko Honda](#)^{1,✉}, [Yoshiyuki Okada](#)², [Tomomi Matsushita](#)³, [Takeshi Hasegawa](#)^{4,5}, [Erika Ota](#)⁶, [Hisashi Noma](#)⁷,
[Takanori Imai](#)¹, [Joey Kwong](#)⁶

**Omalizumab, ligelizumab, UB-221,
dupilumab, etokimab, tezepelumab**

What is Your Experience?

- How many Adults had Food Immunotherapy?
- OIT - Single Food / Multi-food
- OIT - with Biologics / without Biologics
- SLIT alone
- Biologics alone
- Combinations - SLIT, OIT, Biologics

Sarasota Experience



➤ ~1,000 treated patients

OIT (77%)

- 3% were 18-50 yo
- median 20, range 18-50 yo
- 38% hit maintenance

SLIT (23%)

- 14% were 18-50 yo
- median/range same
- 80% reached maintenance

New York Food Allergy Experience



Adults - OIT / Biologics / Combination

- ☐ Started and completed after 18 years of age N = 62
- ☐ Started before 18 - Completed after 18 years of age N = 14
- ☐ Adults - active up dosing, not completed yet N = 32
- ☐ OIT + Biologics (Omalizumab, Dupilumab) N = 12

- ☐ Single food (N = 36)
- ☐ Multi-food up to 4 foods (N = 71)
- ☐ 6 foods OIT (N = 1) - without biologics

New York Food Allergy Experience



SLIT alone (N = 0)

SLIT to OIT (N=12)

Biologics - OMA only (N = 8) - food avoidance - college kids

OIT started - added OMA during OIT (N = 6) - All for milk OIT

Foods Completed for Adults with Free-eating: Peanuts, Milk, Eggs, Wheat, Sesame, Cashew, Walnut, Hazelnut, Almonds, Chickpeas

23 yr old - "Bacon & Cheese" Instagram viral post 4 M+ views

SLIT for Sesame + Milk - OIT for Both - added OMA - Free-eating

New York Food Allergy Experience & Observations



- Adults with food allergies have different needs and expectations - be flexible with their changing life situations
- Unplanned pregnancy during OIT is a possibility - be prepared!
- Additional considerations - work, travel, physical activities, alcohol, drugs, smoking, sexual activities, menstrual cycle, pregnancy, breast feeding, hormone therapy (gender reassignment / transition / egg harvesting)

Unexpected - Unplanned



Pregnancy during OIT: (N = 2)

Patient 1 (4 tree-nut OIT) 2021

- Kept at the same dose
- Successfully completed OIT after delivery
- Continued during nursing
- Infant early introduction

Patient 2 (Milk, Egg, Sesame OIT)

March 2026, Early stage of OIT, on Hold

NYFA Basophil Activation Tests

Post OIT - Sesame - CD63/203c



Antigen 2: Sesame

Basophil Phenotype 10,000 ng/ml	51.4	H	<1	13.82	H	<2
Basophil Phenotype 1000 ng/ml	3.8	H	<1	3.80	H	<2
Basophil Phenotype 100 ng/ml	0.1		<1	0.94		<2
Basophil Phenotype 10 ng/ml	0.1		<1	0.83		<2
Basophil Phenotype 1 ng/ml	0.0		<1	0.90		<2
Basophil Phenotype 0.1 ng/ml	0.2		<1	0.84		<2

NYFA Experience - First Adult OIT

Post OIT IgE - BAT- SU, Tolerance



Food	Components	11/30/2015	07/29/2016	04/22/2017	07/09/2018	04/15/2019	09/28/20	12/23/21	04/27/24
		Pre-OIT							
Total IgE			1296	1512	703	326	158	123	145
Peanut	SPT								
2016	slgE	>100	44.2	51.2	24.1	10.1	4.94	2.89	2.1
	ARA H2*	73	44.5	33.3	13.1	5.82	2.26	1.54	1.23
	ARA H6*					2.91	1.03	0.47	0.26

ALLERGEN	CD203c MFI Fold Change	CD203c Reference Range
Allergen: 10,000ng/ml (CD203c)	1.04	<2
Allergen: 1000ng/ml (CD203c)	1.12	<2
Allergen: 100ng/ml (CD203c)	1.03	<2
Allergen: 10ng/ml (CD203c)	1.03	<2
Allergen: 1ng/ml (CD203c)	0.97	<2
Allergen: 0.1ng/ml (CD203c)	0.95	<2

Meaningful QOL



- 21-year-old college student with PN-TN allergy required Epi in Thailand during study abroad program - wants to “live life”
Completed OFC for TNs, OIT for PN, free-eating now
- 24-yr mom with PN allergy is afraid to do PN-TN early introduction to her 5-month-old son - **Dad fed the baby, Mom - OIT to 3 PNs**
- 27-year-old banker with milk allergy is limited with dating options due to prior Epi at the restaurant - **Omalizumab + Milk OIT**
- 49-year-old professional with sesame allergy who needed Epi and ER visit in Israel - **Completed OIT, Free eating, Completed loop**

Paradigm Shift



1. Do you recommend FA treatment to adult patients?
2. Would SLIT, OIT, Biologics work for food allergic adults?
3. Can SLIT be done without OIT or biologics?
4. Can OIT be done without SLIT or biologics?
5. Are there increased risks with OIT in adults?
6. Any specific food OIT has a higher risk of reactions?
7. Is free-eating possible in adults with OIT?
8. How about sustained unresponsiveness and tolerance?
9. How do current and future biologics fit?



Best Move 4 Adults?

- Nothing, most don't want to play
- If they do, SLIT will make avoidance easier with low cost/commitment and few side effects
- OMA-overrated-mab for OIT/SLIT failures, used in conjunction with desensitization, plan an end game for the biologic

Food Allergy Treatment in Adults

You Decide - Your Approach

