

LOW DOSE ORAL IMMUNOTHERAPY

Do we need to go to full serving amount?

- Potentially going at a lower dose (and less aversion/side effects) may get to similar goal if going at a slower rate
- Japanese group (Ebisawa lab) published a few studies on low dose OIT
 - Cow's Milk Low dose OIT (LOIT) up to 3 ml Cow's Milk for 1 year. After 2 weeks of avoidance, OFC of 3 and 25 ML. If failed, continued on 3mls Cow's Milk
 - Passing challenge (after 2 weeks off the milk) in LOIT 27%, 52%, and 61% after 1,2 and 3 years.
 - LOIT well tolerated (1/33 patient with severe symptoms), improved #s (decreased milk IgE,increased IgG)
 - Conclusion- LOIT yields immunologic improvement and may be effective and safe for severe CM allergy

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- 101 Japanese patients received OIT to full targeted doses (6200 mg egg, 3400 mg milk, or 2600 mg wheat protein) or 25% of the targeted dose
- 51 patients in the 100% group (egg 26, CM 13, wheat 12) and 50 in the 25% group
- Allergy symptoms lower in 25% group.
- Conclusion: Reduced maintenance of egg OIT similar to target dose. Could not show as clear an association with milk or wheat.
 - Reducing maintenance dose may lower symptoms compared to target dosing

First Real-World Effectiveness Analysis of Preschool Peanut Oral Immunotherapy



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What is already known about this topic? Preschool peanut oral immunotherapy in a real-world setting has been shown to be safe; 0.4% of patients experienced a severe reaction, and 4.1% received epinephrine, during build-up.

What does this article add to our current knowledge? About 78.6% of preschoolers on peanut oral immunotherapy maintenance for 1 year had a negative cumulative 4000-mg oral food challenge without symptoms, and 98.3% could tolerate greater than or equal to 1000 mg, sufficient to protect against accidental exposures.

How does this study impact current management guidelines? Real-world peanut oral immunotherapy is effective in preschoolers who received the follow-up oral food challenge and should be considered as an alternative to current recommendations to avoid peanut.

BACKGROUND: We previously described safety of preschool peanut oral immunotherapy (P-OIT) in a real-world setting; 0.4% of patients experienced a severe reaction, and 4.1% received epinephrine, during build-up.

OBJECTIVE: To determine the effectiveness of preschool P-OIT after 1 year of maintenance.

METHODS: Preschoolers (9-70 months) with at least 1 objective reaction to peanut (during baseline oral food challenge

(OFC) or P-OIT build-up) received a follow-up OFC to cumulative 4000 mg protein after 1 year on 300 mg peanut daily maintenance. Effectiveness of desensitization was defined as proportion of patients with a negative follow-up OFC. Symptoms and treatment at follow-up OFC were recorded.

RESULTS: Of the 117 patients who successfully completed 1 year of P-OIT and subsequently underwent a cumulative 4000-mg follow-up OFC, 92 (78.6%) had a negative OFC and 115

TABLE I. Protocol options for CPP-OIT

Week no.	Hybrid (PB2* then Bamba†)	PB2*-Only	Bamba†-Only
0	28.8 mg PB2 (12 mg PP)	First-day escalation (every 15-30 min) 0.24 mg PB2 (0.1 mg PP) 0.48 mg PB2 (0.2 mg PP) 0.96 mg PB2 (0.4 mg PP) 1.92 mg PB2 (0.8 mg PP) 3.6 mg PB2 (1.5 mg PP) 7.2 mg PB2 (3 mg PP) 14.4 mg PB2 (6 mg PP)	1/8 Bamba stick (~10 mg PP)
2	60 mg PB2 (25 mg PP)	28.8 mg PB2 (12 mg PP)	1/4 Bamba stick (~20 mg PP)
4	120 mg PB2 (50 mg PP)	60 mg PB2 (25 mg PP)	1/2 Bamba stick (~40 mg PP)
6	1 Bamba stick (~80 mg PP)	120 mg PB2 (50 mg PP)	1 Bamba stick (~80 mg PP)
8	1.5 Bamba sticks (~120 mg PP)	180 mg PB2 (75 mg PP)	1.5 Bamba sticks (~120 mg PP)
10	2 Bamba sticks (~160 mg PP)	240 mg PB2 (100 mg PP)	2 Bamba sticks (~160 mg PP)
12	3 Bamba sticks (~240 mg PP)	300 mg PB2 (125 mg PP)	3 Bamba sticks (~240 mg PP)
14	4 Bamba sticks (~320 mg PP = maintenance dosing)	374.4 mg PB2 (156 mg PP)	4 Bamba sticks (~320 mg PP = maintenance dosing)
16	Maintenance dosing	468 mg PB2 (195 mg PP)	Maintenance dosing
18	Maintenance dosing	588 mg PB2 (245 mg PP)	Maintenance dosing
20	Maintenance dosing	720 mg PB2 (300 mg PP = maintenance dosing)	Maintenance dosing

PB2, Powdered peanut butter; PP, peanut protein.

*Allergists who chose to use peanut flour instead of PB2 adjusted for protein content.

†There are different types of Bamba packages with different protein content. The calculations in this table for the number of Bamba sticks are based on the package with 5 g protein/28 g Bamba.

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- Do we need to go so high?
- A low maintenance dose may protect up to 3x or more of your maintenance dose?
- How many people want to free eat versus protected from accidents?
- Cases will be different with PN/TN vs milk vs egg (some may just want to be able tolerate baked egg)