

## Oral Food Challenge (OFC) Trends & Outcomes in a Hospital-Based Allergy/Immunology Practice

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### Prospective study looking at “real world outcomes” of OFCs

#### Rationale

There is limited data regarding oral food challenges (OFC) in non-academic settings. We characterized OFCs in an outpatient allergy/immunology practice.

#### Methods

OFCs performed from 6/2019-8/2019 at Rochester Regional Health were tracked. Demographic information, clinical history of food allergy (FA), food-specific skin prick testing (SPT), serum specific IgE (sIgE), challenge indication, and challenge outcome were collected.

#### Challenged Foods

Food Challenged	N (%)	Median Skin Prick (IQR)	Median sIgE (IQR)
Tree nuts	45 (32)	3 (3-5)	0.52 (0.05-2.22)
Peanut	18 (13)	4.5 (3-10)	0.7 (0.29-2.88)
Baked Egg	18 (13)	5 (3-8)	14.7 (4.79-17.6)
Concentrated Egg	17 (12)	5 (3-6)	4.76 (1.59-25.7)
Sesame	10 (7)	9.5 (5-10)	0 (0-2.4)
Concentrated Milk	7 (5)	7.5 (6.25-9.5)	2.18 (1.41-9.67)
Baked Milk	6 (4)	7 (5.75-8.75)	2.05 (1.58-3.03)
Other	17 (14)		

\* Other (foodn)= soy/1, finned fish/2, shellfish/3, chickpeas/2, banana/1, strawberry/1, pumpkin/squash/3, peas/1, green beans/1, lamb/1, chicken/1

**137 OFCs over 3 months** (11.4 challenges per week)

Median age was 7 years  
66% male (91/137)

**74% of OFC Passed** (101/137)

#1 Tree nuts

**25% of OFC Failed** (34/137)

#1 Baked Egg 27% (9/34)  
#2 Tree nuts 23% (8/34)  
#3 Sesame 15% (5/34)  
#4 Peanut 12%  
#5 Milk  
#6 Finned Fish 6% (2/34)

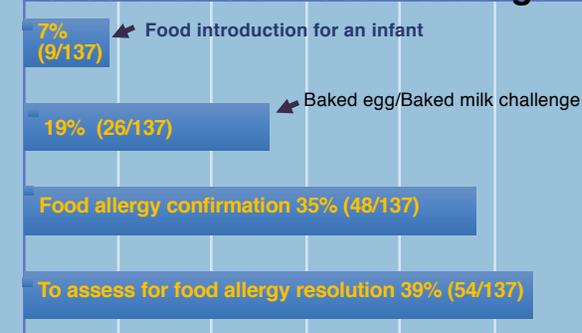
**1% (2 patients)** of OFC were **Incomplete**

**10 required epinephrine**

17 treated with antihistamine alone

7 were observed and symptoms resolved without intervention

#### Reason For Oral Food Challenge



#### Conclusion

The most common reason for performing an OFC was to assess for resolution of the allergy followed by confirmation of the food allergy. Tree-nuts were the most commonly tested food. The majority of failed OFC were seen with baked egg and tree nuts. Only 7% of all patients who underwent an OFC required treatment with epinephrine.

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